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World Federation

Journal of Critical Care

Congress issue 2005

**MEDICINA
INTENSIVA**



ORGANO DE LA SOCIEDAD
ARGENTINA DE TERAPIA INTENSIVA



9th Congress of the

World Federation of
Societies of Intensive and
Critical Care Medicine



International Meeting of the World
Federation of Pediatric and Intensive
and Critical Care Societies

WFPICCS



International Meeting of the World
Federation of Critical Care Nurses

August / Agosto 27-31, 2005 – Buenos Aires – Argentina

Book of Abstracts / Libro de Resúmenes

Organized by



Sociedad Argentina de
Terapia Intensiva
S.A.T.I.



World Federation of
Societies of Intensive and
Critical Care Medicine
WFSICCM



Curso intensivo de dos días de duración

Fundamentos de cuidados críticos en soporte inicial. Programa internacional
 Un programa estandarizado del manejo inicial de pacientes en estado crítico para:

- Médicos Clínicos
- Médicos de Guardia
- Emergentólogos
- Residentes de Terapia Intensiva
- Cirujanos
- Anestesiólogos
- Pediatras
- Enfermeros de Terapia Intensiva

Preparado por
 Society of Critical Care Medicine



ENFERMERIA EN CUIDADOS CRÍTICOS

Curso intensivo de 2 días de duración. Con clases teóricas y estaciones prácticas. Provee conocimientos básicos y destreza práctica para el trabajo asistencial. Está dirigido a enfermeras/os y/o auxiliares de enfermería que se desempeñen en un servicio de cuidados intensivos.

TEMAS

- Sistemas Cardiovascular
- Sistema Respiratorio
- Sistema Renal
- Sistema Nervioso
- Medio Interno

- Asistencia Ventilatoria Mecánica Básica
- Manejo de la Vía Aérea y Oxigenoterapia
- Principios de Farmacología
- Monitorización del Paciente Crítico
- Reanimación Cerebrocardiopulmonar

P.A.L.S. Pediatric Advanced Life Support Apoyo vital avanzado pediátrico

El PALS es un curso estandarizado de 2 días de duración, para proveer información necesaria para reconocer a lactantes y niños en riesgo de paro cardiorespiratorio.

Información y estrategias necesarias para prevenir el paro cardiorespiratorio en lactantes y niños.

Aptitudes cognitivas y psicomotrices necesarias para reanimar y estabilizar a lactantes y niños con insuficiencia respiratoria, shock o paro cardiorespiratorio

El curso está dirigido a los profesionales de la salud responsables del bienestar de lactantes y niños:

- Pediatras - Personal hospitalario
- Médicos de urgencia - Médicos de familia
- Enfermeras - Paramédicos - Terapistas respiratorios y otros

Desarrollado por la
 Sociedad Argentina de Terapia Intensiva
 con certificación de la
 American Heart Association



Curso Teórico Práctico de Ventilación Mecánica



Curso de Ventilación Mecánica organizado y desarrollado por el Comité de Neumonología Crítica de la Sati. 50 horas cátedra. Se entrega Manual de Ventilación Mecánica.

Clases Teóricas

- 1- Fisiología Respiratoria Aplicada.
- 2- Modos Ventilatorios.
- 3- Monitoreo de la Ventilación Mecánica.
- 4- Interacción Paciente-Respirador y Sedación.
- 5- Ventilación en la Obstrucción al Flujo Aéreo.
- 6- Ventilación en la Injuria pulmonar aguda, ARDS y manejo ventilatorio de la Hipoxemia refractaria.
- 7- Desconexión del paciente de la VM.
- 8- Ventilación No invasiva.

Clases Prácticas

- 1- Modos Ventilatorios y monitoreo.
- 2- Ventilación en Asma y EPOC.
- 3- ARDS.
- 4- Ventilación No Invasiva.
- 5- Maniobras ventilatorias: Interpretación de bucles, Curva P/V y Apertura pulmonar.

A.C.L.S. Advanced Cardiac Life Support Apoyo vital cardíaco avanzado

El ACLS es un curso estandarizado de 2 días de duración, para proveer información básica sobre los requerimientos necesarios en la formación de la cadena de supervivencia satisfactoria para atención de pacientes con un paro cardíaco o cerebrovascular.

El curso ACLS consiste en el dictado teórico estandarizado y estaciones prácticas interactivas, con evaluación final.

El objetivo del curso ACLS es aumentar el número de personas entrenadas de manera adecuada y en consecuencia aumentar el número de vidas salvadas mediante prevención, modificación de factores de riesgo e intervención de urgencias.

Desarrollado por la
 Sociedad Argentina de Terapia Intensiva
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 American Heart Association



Destinatarios Médicos - Kinesiólogos - Enfermeros



Objetivos

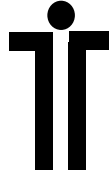
Entrenar al participante como miembro del equipo de salud para proceder de forma sistemática y de manera segura frente a una situación grave con compromiso respiratorio, que amenaza la vida.

Al completar la unidad temática el alumno tendrá la habilidad de:

- Evaluar el estado de conciencia.
- Realizar correctamente las maniobras para permeabilizar la vía aérea y describir los dispositivos auxiliares.
- Mostrar el uso adecuado de la unidad bolsa válvula máscara.
- Implementar métodos para suministrar oxigenoterapia.
- Reconocer y controlar una vía respiratoria obstruida.
- Mostrar habilidad para realizar la maniobra de Heimlich.
- Realizar intubación endotraqueal.
- Utilizar dispositivos avanzados de acceso de vía aérea.

Metodología de enseñanza - Demostración y debate
 Análisis en grupos pequeños - Módulo de prácticas de destrezas

MEDICINA INTENSIVA



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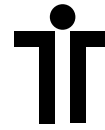
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World Federation Journal of Critical Care

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MEDICINA INTENSIVA



ORGANO DE LA SOCIEDAD
ARGENTINA DE TERAPIA INTENSIVA

Posters Session

Sunday August 28, 2005

Posters Session 1 - Catalinas Room

12:30 to 14:00 - Posters Session 1.1
Catalinas “Atrial natriuretic peptide”
Cardiovascular medicine

Facilitators: Jorge Thierer (Argentina)
Raúl de Miguel (Argentina)
Hernán Artucio (Uruguay)
Roberto Martingano (Argentina)

0065 · THE IMPORTANCE OF B-TYPE NATRIURETIC PEPTIDE AND INFLAMMATORY MARKERS LEVELS IN PATIENTS WITH ISCHEMIC CARDIOMYOPATHY UNDERGOING CARDIAC SURGERY: CORRELATION WITH IMMEDIATE OUTCOME
F Ganem, JL Fernandes, MHSL Blotta, RTD Oliveira, JOC Auler Jr, SA Oliveira, JAF Ramires, CV Serrano Jr.

0323 · ASSESSMENT OF THE KINETICS OF TYPE-B ATRIAL NATRIURETIC PEPTIDE (BNP) IN MYOCARDIAL REVASCULARIZATION
W Homena, D Moreira, A Camarozano, J Albuquerque, P Resende, B Santos, L Alves, D Oliveira, J Magalhães, J Brito, V Carreira, R Gomes.

0628 · INFLUENCE OF THE USE OF VASOACTIVE AMINES ON B-TYPE NATRIURETIC PEPTIDE LEVELS MEASURED IN PATIENTS UNDERGOING CARDIAC SURGERY
A Rouge, RV Gomes, PM Nogueira, FG Aranha, R Vegni, AB Melo, C Karam, DJ Filho, CM Rutherford, LA Campos.

0631 · CAN B-TYPE NATRIURETIC PEPTIDE LEVELS PREDICT ORGANIC DYSFUNCTION IN THE POSTOPERATIVE PERIOD OF CARDIAC SURGERY?
A Rouge, FG Aranha, RV Gomes, PM Nogueira, MA Fernandes, R Vegni, J Sabino, C Karam, F Nogueira, LA Campos, HF Dohmann.

0634 · CAN B-TYPE NATRIURETIC PEPTIDE LEVELS PREDICT THE OCCURRENCE OF ATRIAL FIBRILLATION IN THE POSTOPERATIVE PERIOD OF CARDIAC SURGERY?
A Rouge, RV Gomes, MA Fernandes, PM Nogueira, AB Melo, CM Rutherford, B Barros, FA Tuche, LA Campos, HF Dohmann.

0638 · CAN HEMOTRANSFUSION AND B-TYPE NATRIURETIC PEPTIDE LEVELS BE CORRELATED IN HIGH-RISK PATIENTS UNDERGOING CARDIAC SURGERY?
A Rouge, RV Gomes, PM Nogueira, MA Fernandes, DJ Filho, B Barros, FG Aranha, R Vegni, C Karam, LA Campos, HF Dohmann.

0641 · CAN B-TYPE NATRIURETIC PEPTIDE LEVELS PREDICT SURGICAL ICU LENGTH OF STAY FOR PATIENTS UNDERGOING CARDIAC SURGERY?
RV Gomes, A Rouge, PM Nogueira, MA Fernandes, J Sabino, FG Aranha, DJ Filho, B Barros, LA Campos, HF Dohmann.

0645 · WHAT IS THE KINETICS OF B-TYPE NATRIURETIC PEPTIDE IN THE POSTOPERATIVE PERIOD OF CARDIAC SURGERY?
A Rouge, RV Gomes, MA Fernandes, PM Nogueira, LP Carvalho, AB Melo, CM Rutherford, C Karam, FG Aranha, R Vegni, LA Campos, HF Dohmann.

0677 · CORRELATION BETWEEN THE BRAIN NATRIURETIC PEPTIDE AND CARDIAC BIOMARKERS
J Bono, L Martinez Riera, O Kiener, R D'elias.

12:30 to 14:00 - Posters Session 1.2
Catalinas “Heart failure and ischemic coronary artery disease”
Cardiovascular medicine

Facilitators: Hernán Doval (Argentina)
Ricardo Iglesias (Argentina)
George J. Baltopoulos (Greece)
Héctor Ferraro (Argentina)

0067 · THE EFFECTS OF MILRINONE AND DOBUTAMINE UPON BNP LEVELS IN PATIENTS WITH DECOMPENSATED HEART FAILURE
A Pontes-Arruda.

0198 · EXISTENCE OF A “DIASTOLIC” FRANK-STARLING MECHANISM IN HUMANS: A PRESSURE-VOLUME LOOP STUDY
K Yastrebov, C Royse, A Royse.

Sunday August 28, 2005

0346 · THE USE OF GLYCOPROTEIN IIB/III INHIBITORS IN THE ELDERLY PATIENTS WITH ACUTE CORONARY SYNDROME: SAFETY ANALYSES

S Sá Jr, F Braga, J Mansur, F Alvin, C Akstein, F Afonso, L Antelo, C Vilella, L Gustavo, G Nobe.

0557 · ADMISSIONAL B-TYPE NATRIURETIC PEPTIDE PREDICTS IN-HOSPITAL AND LONG TERM OUTCOMES IN PATIENTS ADMITTED DUE TO DECOMPENSATED HEART FAILURE

HCV Rey, MI Bittencourt, RM Rocha, F Ferreira, FOD Rangel, ALC Marins, SS Xavier, R Esporcatte.

0560 · D-DIMER IS A STRONG MARKER OF IN-HOSPITAL AND LONG-TERM PROGNOSIS IN PATIENTS WITH DECOMPENSATED HEART FAILURE

MI Bittencourt, RM Rocha, HCV Rey, F Ferreira, FT Oliveira, CG Salgado, FOD Rangel, R Esporcatte.

0562 · IS OBESITY A POOR PROGNOSTIC FACTOR FOR PATIENTS WITH DECOMPENSATED HEART FAILURE ADMITTED IN CRITICAL CARE UNIT?

F Ferreira, MI Bittencourt, RM Rocha, HCV Rey, FOD Rangel, ALC Marins, M Vaisman, R Esporcatte.

0568 · MYELOPEROXIDASE – A NEW RISK PREDICTOR FOR ACUTE CORONARY SYNDROME

R Esporcatte, HCV Rey, RM Rocha, CG Salgado, MI Bttencourt, MI Garcia, FOD Rangel, HF Dohmann, HT Mendonça.

0569 · ANEMIA IS A STRONG PREDICTOR OF IN-HOSPITAL COMPLICATIONS AND MORTALITY FOR PATIENTS ADMITTED DUE TO DECOMPENSATED HEART FAILURE

RM Rocha, MI Bittencourt, R Esporcatte, HCV Rey, F Ferreira, GLGA Junior, EP Bernardo, FOD Rangel.

0574 · ADHERE MODEL AS A TOOL FOR IN-HOSPITAL MORTALITY RISK STRATIFICATION IN PATIENTS WITH DECOMPENSATED HEART FAILURE ADMITTED IN CRITICAL CARE UNIT

HCV Rey, MI Bittencourt, RM Rocha, FOD Rangel, ALC Marins, GLGA Junior, EP Bernardo, R Esporcatte.

0675 · EFFICACY AND SAFETY OF LEVOSIMENDAN USE IN ELDERLY PATIENTS WITH CONGESTIVE HEART FAILURE

F Braga, C Musa, S Sá Jr, J Kezen, F Alvim, I Gottlieb, L Danc, PP Sampaio, M Villa-Forte, B Bibas, J Mansur.

0679 · APICAL BALLOONING IN CRITICAL CARE

JE Ubaldini, GN Medina, JA Alvarez, G Leiva, MH Perez, MA Veltri, O Manuale, G Ferrari, FJ Chertcoff.

12:30 to 14:00 – Posters Session 1.3
Catalinas
“Nursing skills I”

Critical care nursing/Research and education

Facilitators: Dongoak Debbie Kim (Korea)
Birte Baktoft (Denmark)
Mireia Subirana (Spain)
Silvia Margalejo (Argentina)

0174 · THE MOST FREQUENT NURSING DIAGNOSIS IN THE PATIENTS SUBJECTED TO THE CONTINUOUS RENAL REPLACEMENT THERAPIES

RCS Souza, CS Matsuba, AL Cheregatti, AM Silva.

0182 · THE USE OF RESPIRATORY PHYSIOLOGY KNOWLEDGE IN CRITICAL CARE NURSES' CLINICAL DECISION-MAKING

AM Pirret.

0192 · ROUTINE REPLACEMENT OF INTRAVENOUS FLUID BAGS DOES NOT PREVENT MICROBIAL COLONIZATION: CONTROLLED COHORT STUDY

CM Rickard, B Vannaprasedth, LJ Keene, MR Mcgrail, S Rambaldo, CA Smith.

0227 · EARLY IDENTIFICATION AND PREVENTION OF ICU DELIRIUM: AN EVIDENCE BASED PRACTICE APPROACH

EM Santiago, R Newhouse.

0235 · MONITORING HUMIDIFICATION OF VENTILATED PATIENTS

E Gonzalez, X Arrieta, M Suarez.

0243 · PEDIATRIC HOST DEFENSE: NOSOCOMIAL INFECTION, SEPSIS AND NEW TREATMENT MODALITIES

TL Haugen.

0249 · SEDATION AS A COMPONENT OF THE CRITERIA TO PERFORM A SPONTANEOUS BREATHING TRIAL

S Arias-Rivera, MM Sánchez-Sánchez, R Santos-Díaz, MJ Gallardo-Murillo, R Sánchez-Izquierdo, F Frutos-Vivar.

12:30 to 14:00 – Posters Session 1.4
Catalinas
“Nursing skills II”

Critical care nursing

Facilitators: Rósa Thorsteinsdóttir (Iceland)
Max Jonas (United Kingdom)
Del Erdmann (United States)
Susana Ryan (Argentina)

0250 · LEVEL OF SEDATION DURING THE MECHANICAL VENTILATION: COMPARISON BETWEEN MIDAZOLAM AND PROPOFOL

S Arias-Rivera, R Sánchez-Izquierdo, MM Sánchez-Sánchez, R Santos-Díaz, MJ Gallardo-Murillo, F Frutos-Vivar.

0386 · THE USE OF IV ADDITIVE DISPENSING PIN FOR ASPIRATION OR INJECTION - AN INFECTION RISK?

J Henriksen, E Lingaas, M Svendberg.

0466 · THE CHALLENGE OF INTRODUCING CONTINUOUS ELECTROENCEPHALOGRAPHIC MONITORING TO A GENERAL INTENSIVE CARE UNIT

JL Cook.

0482 · ASSESSMENT AND REDUCTION OF ANXIETY IN MECHANICALLY VENTILATED PATIENTS

S Mckinley, L Dean.

0608 · CARE TECHNIQUES DEVELOPED BY HEALTH PROFESSIONALS AT AN INTENSIVE THERAPY UNIT

LM Andrade, JA Caetano, EM Rocha, RM Pontes.

0617 · A PROPOSAL FOR INSERTION AND MAINTENANCE OF CENTRAL VEIN CATHETER OF PERIPHERAL INSERTION PROTOCOL

MF Diz, CL Camargo, TF Batista, NCC Melo, MTA Calasans, CML Valente, MS Araujo, NS Oliveira, TSM Barbosa, T Oliveira, G Rego, A Ribeiro.

Sunday August 28, 2005

- 0654** · INCIDENCE OF PRESSURE ULCERS IN NEUROINTENSIVE CARE UNIT
S Diccini, C Camaduro, ARC Bettencourt.
- 12:30 to 14:00 - Posters Session 1.5**
Catalinas “Sepsis in pediatric patients”
Pediatrics/Shock and sepsis
- Facilitators:** Joe Carcillo (United States)
Luis M. Landry (Argentina)
Jefferson Piva (Brazil)
- 0024** · NEONATAL SEPSIS: WHAT IS THE IDEAL DIAGNOSTIC MARKER?
B Vasiljevic, O Antonovic.
- 00313** · DESCRIPTION OF A TECHNIQUE FOR CONTINUOUS MONITORING OF CENTRAL VENOUS OXYGEN SATURATION IN INFANTS AND CHILDREN WITH SEPTIC SHOCK
EJ Troster, CF Oliveira, FAC Vaz.
- 00318** · EXCHANGE TRANSFUSION FOR SEVERE INFANTILE PERTUSSIS
A Donoso, M Gonzalez, P Cruces, J Camacho, B Maldonado, E Darras.
- 00495** · EARLY TREATMENT IS ASSOCIATED WITH LOWER MORTALITY RATE IN CHILDREN WITH SEPTIC SHOCK
EJ Troster, CF Oliveira, FRN Sá, DSF Oliveira, AC Gottschald, AR Ogawa, JDG Moura, FAC Vaz.
- 00534** · MENINGOCOCCAL DISEASE: CLINICAL FEATURES, MORTALITY AND SEQUELAES
G Schonffeldt, R Capona, P Tabilo, A Chavez, P Zambrano, R Paiva, M Drago, R Villena, M Navarro.
- 00544** · RESPIRATORY SYNCYTIAL VIRUS IN A CHILEAN PEDIATRIC INTENSIVE CARE UNIT: IS THERE PLACE FOR PALIVIZUMAB PROPHYLAXIS?
R Bustos, G Soto, B Bancalari, C Torres, R Miranda, R Escobar.
- 00551** · ADRENAL RESPONSE IN CHILDREN WITH SEPTIC SHOCK
PC Garcia, CH Casartelli, JP Piva, RG Branco, PR Einloft, F Bruno, DJ Kipper, JC Santana.
- 00644** · DIAGNOSIS OF BACTERIAL MENINGITIS IN CHILDREN USING CSF FERRITIN LEVEL
RG Branco, PC Garcia, CG Pretto, JP Piva, PR Einloft, F Bruno, A Sfoggia, CH Casartelli, JC Santana, DJ Kipper.
- 00670** · RESPIRATORY SYNCYTIAL VIRUS (RSV) MORBIDITY AND CLINICAL CHARACTERISTICS OF CHILDREN ADMITTED TO PICU IN SOUTHEAST BRAZIL
OAL Cintra, MACT Cintra, APP Carlotti, MAI Feitosa, KZ Silva, FE Paula, AE Santos, ML Silva, CA Sobrinho, E Arruda.
- 12:30 to 14:00 - Posters Session 1.6**
Catalinas “Organ dysfunction in pediatric patients”
Pediatrics/Renal failure, electrolyte and acid-based disorders
- Facilitators:** Denis Devictor (France)
Pablo G. Mincez (Argentina)
- 00070** · ASSOCIATION BETWEEN ACUTE RENAL FAILURE AND MORTALITY IN PEDIATRIC INTENSIVE CARE. TEN YEARS OF EXPERIENCE
PG Mincez, CA Perez, SM Diaz, PG Eulmesekian, J Ferraris, EJ Schnitzler.
- 00211** · HEMOLYTIC UREMIC SYNDROME IN PICU: CLINICAL CHARACTERISTICS, TREATMENT AND PROGNOSTIC FACTORS OF MORTALITY
P Zambrano, M Drago, A Otárola, D Maldonado, V Gallardo, P Romero, R Paiva, R Reyes, M Nalegach, JP Díaz, S González, P Canales, B Concha.
- 00322** · INCIDENCE OF ARTERIAL HYPERTENSION IN THE EARLY POST-OPERATIVE PERIOD AFTER PEDIATRIC LIVER TRANSPLANTATION
EJ Troster, GA Costa, DSF Oliveira, CF Oliveira, JG Maksoud, FAC Vaz.
- 00354** · THE BRITISH COLUMBIA EXTRACORPOREAL LIFE SUPPORT (ECLS) COMBINED NICU-PICU EXPERIENCE
H Osioovich, AJ Singh, A Cogswell.
- 00507** · FULMINANT HEPATIC FAILURE FOLLOWING TREATMENT WITH L-ASPARAGINASE
EJ Troster, DSF Oliveira, GA Costa, CF Oliveira, FAC Vaz, HH Miyamoto.
- 00537** · EFFECT OF SEPSIS ON ORGAN DYSFUNCTION OUTCOME AMONG CHILDREN ADMITTED TO A PEDIATRIC INTENSIVE CARE UNIT
RG Branco, JPT Garcia, RI Ross-Russell, JP Piva, PCR Garcia.
- 00586** · HEMOPHAGOCYTTIC SYNDROME
G Rios, R Díaz, T Montecinos, A Diettes, A Reyes, R Lillo.
- 12:30 to 14:00 - Posters Session 1.7**
Catalinas “PICU: organization and process”
Pediatrics
- Facilitators:** Werther Brunow de Carvalho (Brazil)
Gustavo Ríos (Chile)
- 00048** · AN EVALUATION OF THE CARE GIVING PRACTICES AND EXPERIENCES OF STAFF MEMBERS ACROSS DIFFERENT DISCIPLINES IN A PEDIATRIC INTENSIVE CARE UNIT
A Marais, L Vivian, S McLaughlin, A Argent.
- 00056** · THE ROLE OF THE INTENSIVE CARE UNIT IN PEDIATRIC ONCOLOGIC PATIENTS: LONG-TERM SURVIVAL
J Cordero, J Palma, P Catalan, N Hernandez, J Quintana, V Beresi, A Blanco.
- 00124** · POLICY OF BLOOD TRANSFUSION IN CHILDREN
Z Zonis, Y Dementiev.
- 00202** · A RETROSPECTIVE REVIEW OF THE USE OF NASAL CONTINUOUS POSITIVE AIRWAY PRESSURE FOR INFANTS IN INTENSIVE CARE FOLLOWING CARDIAC SURGERY
R Wakeman, SE Pike, G Halley, D Macrae.
- 00490** · INTER-HOSPITAL TRANSPORT IN CRITICALLY ILL PATIENTS. FIVE YEAR EXPERIENCE
I Fuentes, A Donoso.

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0528 · PERIPHERALLY INSERTED CENTRAL CATHETERS IN PEDIATRIC ACUTE AND INTENSIVE CARE PRACTICE
RG Branco, DR O'Donnell.

0596 · THE VALUE OF AUTOPSY IN A PEDIATRIC INTENSIVE CARE UNIT
A Fernández, A Rodríguez, G Sosa, S Palenzuela, P Beltramo, C Gutierrez, M Alberti.

12:30 to 14:00 - Posters Session 1.8
Catalinas "Trauma and emergencies I"
Trauma, emergency/Neurocritical care

Facilitators: J. Christopher Farmer (United States)
Jorge A. Neira (Argentina)
Enzo Saez Herrera (Chile)

0011 · TIAPRIDE PRE-TREATMENT IN ACUTE HIGH DOSE ORGANOPHOSPHATE EXPOSURE IN RATS
GA Petroianu, MY Hasan, SM Nurulain, K Arafat, M Shafiullah.

0013 · PYRIDOSTIGMINE PRE-TREATMENT IN ACUTE HIGH DOSE ORGANOPHOSPHATE EXPOSURE IN RATS
GA Petroianu, MY Hasan, SM Nurulain, MAH Al Sultan.

0037 · HYPERTONIC SALINE DEXTRAN - THE FLUID OF CHOICE IN PREOPERATIVE VOLUME REPLACEMENT THERAPY OF HEMORRHAGIC SHOCK IN POLYTRAUMATIZED PATIENTS
PS Romic, K Jovanovic.

0082 · SIGNS OF CRITICAL CONDITIONS AND EMERGENCY RESPONSES (SOCCER): A MODEL FOR PREDICTING ADVERSE EVENTS IN THE INPATIENT SETTING
T Jacques, G Harrison, G Kilborn, ML McLaws.

0145 · VISCERAL COMPLICATIONS FOLLOWING CARDIOPULMONARY RESUSCITATION
SM Cortés Díaz, AC Caballero Zirena, A Alvarez Terrero.

0168 · CORRELATION BETWEEN ARTERIO-INTRAMUCOSAL PCO₂ GAP AND INTESTINAL PERMEABILITY IN MULTIPLE INJURED PATIENTS
L Kompan, I Vovk.

0221 · PREVALENCE OF ELDERLY MEDICAL ASSISTANCE AT THE EMERGENCY DEPARTMENT OF A PRIVATE CLINIC
MM Guimarães, FQ Guimarães, PO Neto, CA Stipp, D Fernandes.

0335 · PATIENT-CATEGORIZATION IN PRE-HOSPITAL EMERGENCY UNIT
M Zunkovic.

0484 · DELAYED VENTRICULAR FIBRILLATION FOLLOWING BLUNT CHEST TRAUMA IN A FOUR-YEAR-OLD CHILD
R Tome, M Somri, K Tesler, B Yanovski, L Gaitini.

0663 · MORTALITY DUE TO TRAUMATIC BRAIN INJURY IN AN INTENSIVE CARE UNIT OF A TRAUMA CENTER
H Gomez Fernandez, H Bianco, S Orue, R Simon, F Alderete, O Guanes, C Diaz, O Paredes.

0667 · SEVERE TRAUMA PATIENTS ADMITTED IN AN INTENSIVE CARE UNIT
H Gomez Fernandez, H Bianco, S Orue, G Benitez, M Mendoza, C Diaz, O Paredes, O Paredes.

Posters Session 2 - Catalinas Room

17:30 to 19:00 - Posters Session 2.1
Catalinas "Renal replacement therapy"
Renal failure, electrolyte and acid-based disorders/Shock and sepsis

Facilitators: Horacio J. Adrogué (United States)
Carlos Musso (Argentina)

0160 · ALANINE SERUM, ADHERENCE AND LOSSES IN CONTINUOUS RENAL REPLACEMENT THERAPIES IN CRITICAL ILL PATIENTS
MG Rodrigues, DR Salgado, F Ruzany, CF Valente, E Maccariello.

0162 · AMINO-ACID (AA) LOSSES IN CRITICALLY ILL PATIENTS WITH RENAL FAILURE ON CONTINUOUS VENO-VENOUS HEMODYALYSIS
MG Rodrigues, DR Salgado, RNA Paiva, M Elizabeth, F Ruzany.

0164 · GLUTAMINE SERUM, ADHERENCE AND LOSSES IN CONTINUOUS RENAL REPLACEMENT THERAPIES IN CRITICAL ILL PATIENTS
MG Rodrigues, DR Salgado, CF Valente, F Ruzany, E Rocha.

0186 · HIGH FLUX EXTENDED DIALYSIS (HFED) IN ACUTE RENAL FAILURE (ARF) IN THE INTENSIVE CARE UNIT (ICU)
G Greloni, G Rosa Diez, S Crucelegui, J Reynaldi, F Varela, L Algranati, C Castarataro, A Gallezio.

0302 · OUTCOME OF CHILDREN WITH RENAL DYSFUNCTION AND RENAL REPLACEMENT THERAPY IN A PEDIATRIC INTENSIVE CARE UNIT
EJ Troster, A Watanabe, CF Oliveira, VHK Koch, FAC Vaz.

0619 · "ON LINE" HIGH VOLUME HEMOFILTRATION IN THE TREATMENT OF ACUTE RENAL FAILURE
C Vela, G Abrile, S Canet, F Suru, P Cozette, G Huchard.

0646 · FACTORS ASSOCIATED WITH DEATH IN PATIENTS WITH ACUTE RENAL FAILURE THAT REQUIRED RENAL REPLACEMENT THERAPY
M Espinoza, J Graf, V Tomicic.

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- 17:30 to 19:00 - Posters Session 2.2**
Catalinas “Nutrition - Metabolism”
Nutrition and metabolism renal failure, electrolyte and acid-based disorders
- Facilitators:** María Luisa Cordini (Argentina)
 Pamela Roberts (United States)
 Mario I. Perman (Argentina)
- 0040** · FREE FATTY ACIDS IN SEPTIC SHOCK PATIENTS
SB Cappi, AC Nogueira, FG Soriano, PA Lotufo.
- 0228** · KNOWLEDGE ABOUT NUTRITION IN INTENSIVE CARE UNIT PHYSICIANS OF PUBLIC HOSPITALS IN ASUNCIÓN CITY
MM Jure Goiburu, ME Goiburu, H Bianco, A Filártiga, C Ortiz.
- 0317** · SURVEY OF RESOURCES AND RULES OF USE OF THE NUTRITIONAL SUPPORT (NS) IN INTENSIVE CARE UNITS (ICUS)
MC Montaruli, C Kecskes, E Menéndez, ML Cordini, F Martino, G Bordoli.
- 0358** · NUTRITIONAL SUPPORT IN THE INTENSIVE CARE UNIT DURING SIX CONSECUTIVE YEARS
E Menendez, M Perman, C Kecskes, M Goldin, S Ilari.
- 0455** · RISK FACTORS FOR CEREBRAL EDEMA IN CHILDREN WITH DIABETIC KETOACIDOSIS
L Costa, G Lúlio, B Mackevicius, P Cupo, A Carlotti.
- 0505** · INTENSIVE CONTROL OF GLYCEMIA THROUGH ADAPTED PROTOCOL AT PRIVATE HOSPITAL
JA Victorino, M Paggi, C Ribeiro, FI Farias, MC Moraes.
- 0520** · GLYCEMIA AS A PREDICTOR FACTOR FOR ADULT PATIENTS ADMITTED IN A INTENSIVE CARE UNIT
V Urbietta, H Bianco, B Figueredo, C Ayala, J Rufinelli Vera, E Bueno, A Benitez.
- 0538** · INCIDENCE OF ENTERAL NUTRITION THERAPY COMPLICATIONS IN CRITICALLY ILL PATIENTS
RM Borges, CN Borges, AD Campos, A Basile-Filho.
- 0621** · NUTRITIONAL STATUS AND ENERGY AND PROTEIN INTAKE ASSESSMENT IN CHILDREN WITH CONGENITAL HEART DISEASE AFTER SURGICAL REPAIR
MAC Teixeira-Cintra, M Tremeschin, PH Manso, WVA Vicente, JP Monteiro, APCP Carlotti.
- 17:30 to 19:00 - Posters Session 2.3**
Catalinas “Infection control and diagnosis”
Infection
- Facilitators:** Miguel Ángel de la Cal (Spain)
 Juan José Videla (Argentina)
 Jaime Benites Solis (Ecuador)
 Marcela Gilli (Argentina)
- 0128** · PROCALCITONIN IN THE DIAGNOSIS OF INFECTION IN CRITICALLY ILL PATIENTS: A COST-EFFECTIVENESS ANALYSIS
LA León Guerrero, JC Torres Millán, H Gómez Danies, G Montenegro, A Gómez Duque.
- 0257** · INFECTIOUS COMPLICATIONS IN THE CHRONICALLY CRITICALLY ILL PATIENTS
R Reina, E Estensoro, F Gonzalez, G Saenz, H Canales, M Aprea, A Das Neves, F Pereda, I Zoilo, P Casteluccio.
- 0265** · RISK FACTORS FOR SHORT-TERM, PERCUTANEOUSLY INSERTED, CENTRAL VENOUS CATHETER-RELATED INFECTIONS IN A PEDIATRIC INTENSIVE CARE UNIT
R Vilela, ADN Jácomo, SRPE Dantas, CE Lopes, AT Tresoldi.
- 0404** · PREVALENCE OF MUCOSAL THICKENING IN PARANASAL SINUSES IN CRITICALLY ILL INTUBATED PATIENTS
ACD Jorge, RARA Oliveira, SMTP Soares, IMR Pereira, S Araújo.
- 0441** · SURVEILLANCE OF VANCOMYCIN RESISTANCE ENTEROCOCCUS IN ADULT INTENSIVE CARE UNIT
H Bianco, R Ferreira, R Ferreira, K Davalos, S Baez, B Figueredo, G Lird, J Ortellado, C Ayala.
- 0446** · NASAL CARRIERS OF STAPHYLOCOCCUS AUREUS IN HOSPITAL STAFF OF ADULT INTENSIVE CARE UNIT
H Bianco, K Davalos, R Ferreira, S Baez, B Figueredo, C Ayala, J Ortellado, J Plans.
- 0447** · ATYPICAL PRESENTATION OF INFECTIVE ENDOCARDITIS IN THE INTENSIVE CARE UNIT: FIRST CASE REPORT OF EUSTACHIAN VALVE ENDOCARDITIS CAUSED BY KLEBSIELLA PNEUMONIAS
FS Affonso, E França, A Jannuzy, R Hatum, MA Mattos, ME Lugarinho, MF Knibel.
- 0469** · COMPARISON BETWEEN STANDARD VIRAL SEROLOGICAL AND NASOPHARYNGEAL SAMPLING ASSAYS WITH MOLECULAR TESTING IN ICU VENTILATED PATIENTS WITH EXACERBATIONS OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE
RJ Cameron, D De Wit, J Ferguson, TV Grissell, T Welsh, PJ Rye.
- 0477** · INFLAMMATION IN THE INSERTION SITE IS PREDICTIVE OF CATHETER RELATED BLOODSTREAM INFECTION IN CRITICAL PATIENTS WITH CENTRAL VENOUS CATHETER?
I Porras, H Albornoz, W Pedreira, H Bagnulo.
- 0599** · THE IMPACT OF AN INFECTION CONTROL PROGRAM WITH ALCOHOL-BASED HAND DISINFECTION AND ISOLATIONS PRECAUTIONS IN AN INTENSIVE CARE UNIT
MB Gazzana, RP Santos, LV Santos, GT Fonseca, L Backes, M Tiberio, A Nunes, C De Leoni, FC Vieira.
- 0623** · MICROBIAL RELATIVE FREQUENCY AND ANTIMICROBIAL SUSCEPTIBILITY PATTERNS STUDY IN INTENSIVE CARE UNITS IN A TERTIARY CARE HOSPITAL IN RIO DE JANEIRO, BRAZIL
PH Godoy, NG Barroso, GM Regis, RL Cavalcanti, AC Rodrigues.

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17:30 to 19:00 - Posters Session 2.4**Catalinas "Difficult pathogens in ICU"***Infection*

Facilitators: Edgar Celis-Rodriguez (Colombia)
 Alberto Cremona (Argentina)
 Francisco Nacinovich (Argentina)
 Roberto L. González (Argentina)

0032 · LEPTOSPIROSIS IN INTENSIVE CARE UNITS: A COHORT OF 57 PATIENTS*SR Vieira, JS Brauner, DLO Fonseca.***0116 · CARDIAC RICKETTSIOSIS WITH ECHOCARDIOGRAPHIC CHANGES TREATED ACCORDING TO SURVIVING SEPSIS CAMPAIGN (SSC) GUIDELINES***R Tetamo, MA Mignini, E Mazzola, G Lazzaro, MF Sapuppo, A Romano.***0156 · HANTAVIRUS PULMONARY SYNDROME CLINICAL CHARACTERISTICS***P Saul, M Buono, N Chacon, H Perelmuter, J San Juan.***0203 · RESPIRATORY DISTRESS AND SHOCK: ATYPICAL PRESENTATION OF LEPTOSPIROSIS***G Ceconi, R García Turiella, D Rovira, R Guidi, F Daminato, E Barral, G Arana.***0299 · DISSEMINATED STRONGYLOIDES INFECTION IN COPD PATIENTS USING CORTICOIDS***M Jabur, SMA Lobo, JM Pozetti, JC Brufato, CAC Mendes, EFF Sivieiro, GL Ciorlia, LA Mazzetto, MRL Jabur.***0310 · LUCIO'S PHENOMENON IN ICU: A REPORT OF A CASE IN BRAZIL***AN Duarte-Neto, GCT Barbosa, PPF Campos, SB Cappi, FG Soriano, M Bernik, CB Valeri, CR Ferreira, PA Lotufo.***0436 · ACCIDENTAL TETANUS: CASE REVIEW FROM A BRAZILIAN UNIVERSITY HOSPITAL***EB Caser, ML Rodrigues, LN Araújo, FA Antunes, L Tcherniakovski.***0439 · OUTBREAK OF COMMUNITY ACQUIRED MRSA IN URUGUAY ANALYSIS OF PATIENTS ADMITTED IN INTENSIVE CARE***A Soca, I Constenla, J Pontet, O Bertaux, S Noveri, P Cardinal, P Zitto, S Infanzón, H Bagnulo, S Bentancourt.***0615 · THE HANTAVIRUS PULMONARY AND CARDIOVASCULAR SYNDROME (HPCVS) – TWO CASES REPORT***CSAA Chaves, VNS Montenegro, MM Pereira, CGF Santos, I Sanders, OLR Almeida, SB Margalho, ECD Cardoso.***17:30 to 19:00 - Posters Session 2.5****Catalinas "Nosocomial infections".***Infection/Critical care nursing/Shock and sepsis*

Facilitators: Daniel Stambouljan (Argentina)
 María Candela Llerena (Argentina)
 Jorge A. San Juan (Argentina)
 José María Casellas (Argentina)

0077 · NOSOCOMIAL INFECTIONS IN ICU: A LOCAL GUIDELINE BASED ON EPIDEMIOLOGICAL DATA IN ICU SEARCHING SOLUTIONS FOR ANTIMICROBIAL RESISTANCE*C Pacheco, Z Parra, J España, M Capdevielle, C Uret, G Contreras.***0165 · EPIDEMIOLOGIC PROFILE OF NOSOCOMIAL INFECTIONS IN A PEDIATRIC INTENSIVE CARE UNIT***MP Arias Lopez, MG Sheehan, M Garea, E Koch, J Bakir, A Procopio, F Olazarri, A Gentile.***0171 · MICROBIOLOGY BIOFILM ANALYSIS OF INTERNAL SURFACE IN SHORT TERM PERMANENCY CENTRAL VENOUS CATHETER (CVC) IN INTENSIVE CARE***EL Paz, M Salazar, M Medina, I Coronado, O Merino, G Salcedo, E Montenegro, R Lopez.***0245 · INFECTIONS CAUSED BY ACINETOBACTER SPP IN CRITICALLY ILL PATIENTS ADMITTED TO THE ICU***F Alvarez-Lerma, M Palomar, P Olaechea, J Insausti, E Cerda.***0247 · STAPHYLOCOCCUS AUREUS INFECTIONS IN CRITICALLY ILL PATIENTS ADMITTED IN ICU***F Alvarez-Lerma, M Palomar, J Insausti, P Olaechea, E Cerda.***0314 · INCIDENCE OF NOSOCOMIAL INFECTIONS IN INTENSIVE CARE UNITS: RESULTS OF A SPANISH MULTICENTER STUDY***F Alvarez-Lerma, M Palomar, P Olaechea, J Insausti, E Cerda.***0328 · A PROSPECTIVE INCIDENCE STUDY OF NOSOCOMIAL BACTERIAL INFECTIONS IN A PEDIATRIC INTENSIVE CARE UNIT IN TUNIS***N Ben Jaballah, A Bouziri, W Kchaou, K Mnif, S Belhadj, A Hamdi, A Khaldi.***0338 · INFECTION SURVEILLANCE AND CONTROL IN INTENSIVE CARE. A 3-YEAR STUDY. CONCLUSIONS***F Daminato, R García Turiella, D Rovira, R Guidi, G Ceconi, G Arana, M Gini, E Barral.***0344 · FEVER IN AN ADULT INTENSIVE CARE UNIT***H Caballero, H Bianco, R Ferreira, K Davalos, S Baez, B Figueredo, C Ayala, M Villafane.***0398 · NOSOCOMIAL INFECTIVE ENDOCARDITIS IN CRITICALLY ILL PATIENTS: AN ANALYSIS OF 33 CASES. MACIEL MONTEVIDEO. URUGUAY***R Vázquez, E Echavarría, M Percovich, R Erlijman, H Bagnulo.***0408 · BEDSIDE QUALITY CHECK-LIST AND ITS IMPACT IN HOSPITAL INFECTION CONTROL***M Knibel, L Castro, R Hatum, C Roderjan, E Guimarães, M Lugarinho, C Vasconcelos, A Vanzan, M Matos.***0435 · NOSOCOMIAL INFECTIONS IN AN ADULT INTENSIVE CARE UNIT. THREE YEARS OF STUDY***H Caballero, H Bianco, I Ortiz, S Baez, K Ayub, B Figueredo, C Ayala, M Villafañe.***0653 · EPIDEMIOLOGIC SURVEILLANCE USING THE NATIONAL NOSOCOMIAL INFECTION SURVEILLANCE SYSTEM (NNISS) IN A PEDIATRIC INTENSIVE CARE UNIT OF A UNIVERSITY HOSPITAL***I Fernandes, C Travassos, J Fernandes, V Chiaratto, A Ventura, A Bousso, S Shin.*

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- 17:30 to 19:00 - Posters Session 2.6**
Catalinas “Sepsis: epidemiology and prognosis I”
Shock and sepsis/Infection
- Facilitators:** Younsuck Koh (Korea)
 Hiroyuki Hirasawa (Japan)
 Arnaldo Dubin (Argentina)
- 0025** · PLASMA LIPOPOLYSACCHARIDE NEUTRALIZING CAPACITY IN PATIENTS UNDERGOING CARDIAC SURGERY
F Kunimoto, Y Hayashi, K Oshima, H Hinohara, Y Kadoi, H Kuwano.
- 0086** · SERUM LIPIDS ANALYSIS IN SEPTIC SHOCK PATIENTS
AC Nogueira, DT Noritomi, A Duarte, PA Lotufo, M Bernik, F Maia, L Gonzaga, V Kawabata, S Cappi, FG Soriano.
- 0132** · EARLY INDICATORS OF STRESS OXIDATIVE IN PATIENTS WHO UNDERWENT GYNECOLOGICAL SURGERY
T Maskoen, A Maskoen, TH Achmad, AH Wargahadibrata.
- 0149** · MICROALBUMINURIA AS A PREDICTOR OF SEVERITY IN THE CRITICALLY ILL PATIENT
R Carrillo-Esper, V Contreras-Domínguez, C Hernández-Aguilar.
- 0209** · BIOCHEMICAL PARAMETERS CLINICAL VALUE: LACTATE, INTERLEUKINE-6, PROTEOLYTIC ACTIVITY AND REACTIVE C PROTEIN IN THE SEPTIC PROCESS
MB Di Carlo, MA Chaves Zambrano, ML Calcagno, MF Bustos, CG Sosa, MC Carmona, VM Yapur, M Jorge, DN Bustos, GA Negri.
- 0231** · EXTREMELY SHORTENED ARTERIOVENOUS OXYGEN DIFFERENCE PHENOMENON AS PROGNOSTIC INDICATOR IN PATIENTS WITH SEVERE SEPSIS
EM Olivares-Durán, A Sánchez.
- 0383** · SYSTEMIC INFLAMMATORY RESPONSE SYNDROME (SIRS), SEPSIS, SEVERE SEPSIS AND SEPTIC SHOCK IN CRITICAL ILL PATIENTS OF LIMA – PERU
NA Luque, G Ascencio, I Coronado.
- 0478** · SEVERE SEPSIS AND SEPTIC SHOCK IN INTENSIVE CARE UNITS. EARLY RESULTS FROM SEPSIS. BRAZILIAN STUDY.
J Sales, C. David, P Souza, A Fonseca, R Hatum, S Lima, L Osório, G Macedo, J Verdeal, J Castro, G Moraes, G Aguiar, C Coelho, C Acra, J Passos, D Haringer.
- 0515** · CHARACTERISTICS OF CHILDREN WITH SEPTIC SHOCK AND MULTIPLE ORGAN DYSFUNCTION SYNDROME ACCORDING TO TWO CLINICAL SCORES
D Souza, A Ventura, I Fernandes, S Shin, P Goes, A Bousso.
- 17:30 to 19:00 - Posters Session 2.7**
Catalinas “Sepsis: epidemiology and prognosis II”
Shock and sepsis/Infection
- Facilitators:** John C. Marshall (Canada)
 Eliézer Silva (Brazil)
 Bernardo C. Maskin (Argentina)
- 0282** · RELATIONSHIP OF SOFA SCORE, LACTATE LEVELS AND GASTRIC TONOMY IN SEPTIC SHOCK
MH Kai, E Silva, PS Martins, AG Garrido, E Knobel, S Blecher.
- 0298** · THE ASSOCIATION OF MANNOSE-BINDING LECTIN WITH THE SEVERITY AND PROGNOSIS OF SEPSIS
JW Huh, KY Song, JS Yum, EM Park, SB Hong, CM Lim, YS Koh.
- 0371** · TOTAL PLASMA CORTISOL AND PROGNOSIS IN ICU PATIENTS WITH SIRS
C Loudet, M Perman, S Ryan, C Castarataro, E San Roman, A Gallesio.
- 0426** · PREDICTIVE VALUE OF 36 HS MICROALBUMINURIA VARIATION IN SEVERELY ILL PATIENTS
JA Vazquez, DN Chiachiarra, MC Adducci, JA Aymar, AE Pilipec, P Penone, DR Fenoglio.
- 0465** · PROGNOSTIC VALUE OF A MULTIPLEX ANALYSIS OF SEVENTEEN DIFFERENT CYTOKINES IN PATIENTS WITH SEPSIS
F Bozza, J Salluh, E Assis, M Soares, A Japiassu, R Gomes, MT Bozza, H Castro-Faria-Neto, PT Bozza.
- 0493** · SUPRARENAL INSUFFICIENCY (SRI) IN PEDIATRIC SEPTIC SHOCK: EPIDEMIOLOGIC CHARACTERISTICS AND THERAPEUTIC ASPECTS
A Ventura, D Souza, E Barreira, A Bousso, E Gonçalves.
- 0496** · EPIDEMIOLOGICAL ASPECTS OF CHILDREN ADMITTED TO A PEDIATRIC INTENSIVE CARE UNIT WITH SEPTIC SHOCK
A Ventura, D Souza, A Bousso, C Travassos, D Oliveira, J Fernandes.
- 0535** · PREDICTIVE VALUE OF INTERLEUKIN -6, C REACTIVE PROTEIN AND WHITE BLOOD COUNT IN CRITICALLY ILL CHILDREN WITH SEPSIS
R Bustos, H Araneda, G Soto, R Escobar, B Bancalari, R Miranda.
- 0542** · B TYPE NATHRIURETIC PEPTIDE (BNP) IN CRITICAL CARE PATIENTS, COMPARATIVE STUDY WITH METABOLIC AND HEMODYNAMIC VARIABLES
MV Gomes, RV Gomes, E Moreira, A Vianna, H Magarinos, A Freitas, A Michelle, C David.
- 17:30 to 19:00 - Posters Session 2.8**
Catalinas “Sepsis: clinical and experimental treatment I”
Shock and sepsis
- Facilitators:** Graham Ramsay (Netherlands)
 Glenn Hernández Poblete (Chile)
- 0083** · QUALITY ASSURANCE IN CRITICALLY ILL PATIENTS: ENSURING BEST PRACTICE IN SEVERE SEPSIS AND SEPTIC SHOCK
JS Davidow, PG Brindley, RTN Gibney, MJ Jacka.
- 0212** · USE OF SELECTIVE INHIBITOR OF INDUCIBLE NITRIC OXIDE SYNTHASE -L-N-IMINOETHYL LYSINE- IN ENDOTOXEMIA: OBSERVATION OF THE MICROCIRCULATION USING THE DORSAL CHAMBER TECHNIQUE
BES Araújo, ES Furtado, E Bouskela.
- 0236** · ROLE OF ALBUTEROL IN SEPSIS-INDUCED DIAPHRAGMATIC DYSFUNCTION IN RATS
H Piriz, N Nin, J Boggia, J Hurtado.

Sunday August 28, 2005

0239 - EFFECTS OF THE EXPOSURE TO HYPERBARIC OXYGEN THERAPY ON DIFFERENT EXPERIMENTAL MODELS OF ABDOMINAL SEPSIS
J Duarte Silva, D Mourão Sá, RT Figueiredo, CF Benjamim, MT Bozza.

0357 - SOFA AND PCR TRENDS IN PATIENTS WITH SEVERE SEPSIS/ SEPTIC SHOCK TREATED WITH ACTIVATED PROTEIN C
A Gullo, G Di Capua, F Iscra.

0396 - EVALUATING THE USE OF DROTRECOCIN ALFA (ACTIVATED) IN ADULT SEVERE SEPSIS: A CANADIAN MULTICENTER OBSERVATIONAL STUDY
S Kanji, M Perreault, C Chant, D Williamson, L Burry.

0463 - TO DIAGNOSE AND THEN TREAT OR TO TREAT AND THEN DIAGNOSE POSSIBLE RELATIVE ADRENAL INSUFFICIENCY IN CRITICALLY ILL PATIENTS?
M Perman, C Loudet, S Ryan, J Butera, L Camputaro, A Gallesio.

17:30 to 19:00 - Posters Session 2.9
Catalinas
"Trauma and emergencies II"
Trauma, emergency/Neurocritical care/Perioperative care

Facilitators: Rao Ivatury (United States)
Gustavo Quintana (Argentina)
Daniel H. Ceraso (Argentina)

0207 - PENETRATING CRANIOCEREBRAL INJURIES WITH GUNSHOT WOUND: OUR EXPERIENCE IN THE HOSPITAL MUNICIPAL DE URGENCIAS. CÓRDOBA. ARGENTINA
PB Pahnke, DC Gomez, FA Orlandini, C Maineri, R Del Boca, E Lacombe.

0214 - THE IMMUNE SYSTEM ACTIVITY OF SEVERE TRAUMA PATIENT COULD BE RECOVERED BY THE IMMUNOSTIMULATORY OLIGODEOXYNUCLEOTIDE IMT 504
JM Rodríguez, F Elías, JC Marchisio, M López Salon, AD Montaner, BC Maskin, MP Pereiro, CN Artana, JL Durguerian, N Pistillo.

0218 - THE SPECTRUM OF LAP BELT SYNDROME IN CANADIAN CHILDREN
M Santschi, C Lemoine, C Cyr.

0290 - POLITRAUMA EMERGENCY ROOM IN PORTO ALEGRE, BRAZIL
KF Prado, MV Furtado, APV Freitas, CR Neumann.

0442 - EXAMINING THE VALUE OF THE TRAUMA AND INJURY SEVERITY SCORE AS A QUALITY ASSURANCE TOOL
LM Aitken, J Lang.

0460 - CASE REPORT: ACTIVATED RECOMBINANT FACTOR VII IN SEVERE TRAUMA COAGULOPATHY
D González, I Previgliano, G Tisminetzki, L Capdeville, V Grandó, V Makanek, H Correa, D Ceraso.

0504 - RELATIONSHIP BETWEEN TRAUMA ASSOCIATED AND MORTALITY IN SEVERE TRAUMATIC BRAIN INJURY
ET Martins, TS Silva, JN Meinertz, LA Rigo.

0513 - MACROPHAGE MIGRATION INHIBITORY FACTOR VALUE IN CRUSH SYNDROME
R Azevedo, C David, E Assis, P Bozza.

0601 - MODS SCORES ARE BETTER PREDICTORS OF TRAUMA'S MORTALITY THAN APACHE II AND TRISS-ISS-RTS
REJ Montoya, B Fontes, R Pogetti, PE Rocha, AM Dias, D Biroolini.

0607 - INTRABDOMINAL PRESSURE AND ITS INFLUENCE ON MORBIMORTALITY OF ABDOMINAL COMPARTMENT SYNDROME
M Ochoa Parra, H Clavijo, R Duque, R León, P Noboa, I Orellana, F Ortega, R Pineda.

0682 - EARLY COLLOID REPLACEMENT THERAPY IN A NEAR-FATAL MODEL OF HEMORRHAGIC SHOCK
ELA Ferreira, RGG Terzi, MM Moreira, W Silva, AC Moraes.

Monday August 29, 2005

Posters Session 3 - Catalinas Room

12:30 to 14:00 - Posters Session 3.1
Catalinas
"Metabolism - Nutrition"
Nutrition and metabolism/Renal failure, electrolyte and acid-base disorders

Facilitators: Pamela Roberts (United States)
Adrián G. Gold (Argentina)
María Luisa Cordini (Argentina)

0308 - THE IMPACT OF UNDERNUTRITION ON MORBIDITY, MORTALITY AND LENGTH OF HOSPITAL STAY IN TRAUMA PATIENTS
ME Goiburu, MM Jure Goiburu, H Bianco, J Ruiz Diaz, F Alderete, V Cabral, R Lopez, MC Palacios.

0421 - CONTINUOUS SUCCESSFUL BLIND PLACEMENT OF NASOJEJUNAL TUBES (NJ) FACILITATED BY TRAINING AND AUDIT
R Meyer, S Harrison, L Archibald, C Elwig, M Cooper.

0489 - COMPARATIVE ANALYSIS OF ESTIMATED AND MEASURED BODY WEIGHTS OF ELDERLY AND NON-ELDERLY CRITICALLY ILL PATIENTS
JM Viana, MA Martins, EA Nicolini, WO Campos-Filho, A Basile-Filho.

0511 - EFFICIENCY AND SAFETY OF A GLUCOSE CONTROL PROTOCOL IN A MEDICAL-SURGICAL ICU
FAC Alves, RV Cremonese, TF Tonietto, JH Barth, RP Oliveira, SFM Brodt, C Teixeira, ES Oliveira, C Viscaychipi, S Pannenbecker, NG Rockenback, S Medeiros, ES Silva, NB Silva.

0526 - THE IMPACT OF MEASURED VERSUS FIXED NITROGEN ON RESTING ENERGY EXPENDITURE IN MECHANICALLY VENTILATED PATIENTS
CC Japur, A Basile-Filho.

Monday August 29, 2005

- 0532** · ANALYSIS OF APPROACH AND CLINICAL SIGNIFICANCE OF ACID-BASE DERANGEMENTS IN CRITICALLY ILL PATIENTS
LU Taniguchi, M Park, LM Cruz-Neto.
- 0552** · THE IMPACT OF ONGOING AUDIT ON TIME TAKEN TO INITIATE ENTERAL NUTRITION SUPPORT
R Meyer, S Harrison, L Archibald, C Elwig, M Cooper.
- 0618** · EFFECT OF THE GLUTAMINE ON THE SYSTEMIC INFLAMMATORY RESPONSE SYNDROME IN THE HEART SURGERY
L Amendola, F Pérez, G D'Empaire, I Pazos.
- 0668** · ENTERAL NUTRITION IN SEPTIC SHOCK IN THE ELDERLY: DO THE TIME ELAPSED UP TO THE START AND THE ACHIEVED BASAL ENERGY EXPENDITURE INTERFERE IN MORTALITY?
PH Godoy, GM Oliveira, E Lameu, RR Luiz, R Machado, BT Mattos, M Brandão.
- 12:30 to 14:00** - Posters Session 3.2
Catalinas "Postoperative care"
Perioperative care/Critical care nursing/ Cardiovascular medicine/Shock and sepsis
- Facilitators:** Janice Zimmerman (United States)
Ricardo N. Valentini (Argentina)
Mercedes Esteban Chacón (Argentina)
- 0014** · THE USE OF RECOMBINANT FACTOR VII A IN A PATIENT WITH MAJOR HEMORRHAGE POST PANCREATIC NECROSECTOMY
SH Dorman, VU Navarpurkar.
- 0280** · BARIATRIC SURGERY POSTOPERATIVE MANAGEMENT: COMPLICATIONS IN A SERIES OF 278 PATIENTS ADMITTED TO AN INTENSIVE CARE UNIT
M Knibel, F Muller, R Hatum, C Roderjan, E Guimarães, M Lugarinho, C Vasconcelos, A Vanzan, M Mattos.
- 0284** · BARIATRIC SURGERY POSTOPERATORUM IN THE ICU: CORRELATION BETWEEN COMPLICATIONS IN OPEN VERSUS LAPAROSCOPIC GASTROPLASTY
M Knibel, R Hatum, F Muller, C Roderjan, E Guimarães, M Lugarinho, C Vasconcelos, A Vanzan, M Mattos.
- 0285** · THE BARIATRIC SURGERY POSTOPERATIVE IN INTENSIVE CARE UNIT (ICU): A SERIES OF 278 PATIENTS
M Knibel, F Muller, R Hatum, C Roderjan, E Guimarães, M Lugarinho, C Vasconcelos, A Vanzan, M Mattos.
- 0472** · OUTCOME OF BARIATRIC SURGICAL PATIENTS ADMITTED TO ICU
FVC De Marco, ALG Guimarães, WM Imanishi, M Catania, NKG Souza, RK Kikko, PMC Bruno.
- 0509** · ACUTE UPPER GASTROINTESTINAL BLEEDING (AUGB) IN ICU
L Vetere, P Farina, L De Janon, S Arcieri, P Cueto Quintana, R Gilardino, J Gonzalez, A Rodriguez, R Cherjovsky.
- 12:30 to 14:00** - Posters Session 3.3
Catalinas "Severe infections: prognostic factors and treatment"
Infection/Liver failure and transplantation/ Shock and sepsis
- Facilitators:** Satish Bhagwanjee (South Africa)
Liliana Aguilar (Argentina)
Pedro Cahn (Argentina)
- 0246** · CLINICAL USE AND TOLERABILITY OF VORICONAZOLE IN THE TREATMENT OF FUNGAL INFECTIONS IN CRITICALLY ILL PATIENTS
F Alvarez-Lerma, JM Nicolas, JC Rodriguez, J Díaz-Regañón, M Sa-Borgues, F Garcia-Lopez, A Allepuz.
- 0263** · LINEZOLID VERSUS TEICOPLANIN AGAINST MULTI-RESISTANT GRAM-POSITIVE COCCI IN CRITICALLY ILL PATIENTS ADMITTED TO INTENSIVE CARE UNIT
O Rodríguez-Colomo, F Alvarez-Lerma, B Alvarez-Sánchez, J Solé-Violán, F Barcenilla-Gaite, V González-Sanz.
- 0273** · INFECTIVE ENDOCARDITIS: PREDICTIVE VARIABLES OF EMBOLIC EVENTS
A Cremona, E Benavidez, D Branne, G Cremona, D Cocozzella, O Grillo, J Fernández, A Legarto, J Lossino, C Mendez, J Napal, S Ramirez Borgia, S Ramirez Borgia.
- 0279** · EMPIRICAL ANTIMICROBIAL THERAPY AND MORTALITY IN SEPTIC PATIENTS ACCORDING TO ORIGIN, CLINICAL PRESENTATION AND INFECTION SITES
H Bagnulo, M Godino.
- 0296** · USE OF ANTIBIOTICS ACTIVE AGAINST MULTIRESTANT GRAM-POSITIVE COCCI IN CRITICALLY ILL PATIENTS ADMITTED TO THE ICU
F Alvarez-Lerma, Y Diaz Buendia, B Alvarez, E Cereijo, O Rodriguez, V Gonzalez.
- 0315** · EVOLUTION OF THE ANTIMICROBIAL RESISTANCE IN AN ADULT INTENSIVE CARE UNIT
V Urbietta, H Bianco, B Figueredo, C Ayala, R Ferreira, S Baez, J Plans, M Villafane.
- 0429** · EVALUATION OF PROGNOSTIC FACTORS OF PATIENTS WITH SEVERE COMMUNITY ACQUIRED PNEUMONIA ADMITTED TO AN ICU
F Nagel, DL Neves, FS Dias.
- 0443** · ANTIBIOTIC RESISTANCE REDUCTION AMONG SEVERELY HEAD INJURED PATIENTS. PRELIMINARY RETROSPECTIVE ANALYSIS OF "PNEUMONIA PREVENTION" PROTOCOL IMPACT
C Compagnone, F Tagliaferri, R Gaio, M Ravaldini, C Turrini, G Nori, L Targa, A Chierigato.
- 0585** · EVALUATION OF ADEQUACY IN EMPIRICAL ANTIBIOTIC THERAPY IN A GENERAL ICU
G Friedman, T Lisboa, R Moraes, E Parolo, L Mallmann.

Monday August 29, 2005

12:30 to 14:00 - Posters Session 3.4**Catalinas "Ventilator associated pneumonia"***Infection/Respiratory medicine*

Facilitators: Jean Yves Fagon (France)
Roberto L. González (Argentina)
Fernando G. Ríos (Argentina)

0034 - FEATURES OF CARBAPENEM RESISTANT ACINETOBACTER VENTILATOR-ASSOCIATED PNEUMONIA

FP Giannini, M Park, DN Forte, JM Coelho, LCP Azevedo, LM Cruz-Neto.

0130 - MORTALITY RATE IS THE SAME IN PATIENTS WITH ONE OR TWO VENTILATOR -ASSOCIATED PNEUMONIA EPISODES

KN Zolotukhin, FS Galeev.

0194 - VENTILATOR ASSOCIATED PNEUMONIA CAUSED BY MULTIDRUG-RESISTANT PSEUDOMONAS AERUGINOSA AND ACINETOBACTER SP. TREATMENT WITH COLISTIN

P Saul, M Nogueiras, E Cunto, O Villar, J San Juan.

0365 - PROSPECTIVE STUDY OF RISK FACTORS FOR VENTILATOR-ASSOCIATED PNEUMONIA CAUSED BY ACINETOBACTER SPECIES

C Formento, J Medina, J Pontet, A Curbelo, C Bazet, J Gerez, E Larrañaga.

0409 - DETERMINING THE UTILITY OF THE CLASSIFICATION OF EARLY ONSET PNEUMONIA AND LATE ONSET PNEUMONIA IN OUR INTENSIVE CARE UNIT (ICU)

M Paz, C Castarataro, S Giannasi, E San Roman, A Gallezio.

0411 - PROSPECTIVE EVALUATION OF CLINICAL PULMONARY INFECTION SCORE IN VENTILATION ASSOCIATED PNEUMONIA PROGNOSIS

M Knibel, A Lima, M Lugarinho, R Hatum, C Roderjan, E Guimarães, C Vasconcelos, A Vanzan, M Matos.

0412 - VALIDATION OF THE NON BRONCHOSCOPY BRONCHOALVEOLAR LAVAGE TO DIAGNOSE VENTILATOR ASSOCIATED PNEUMONIA

J Medina, J Pontet, A Curbelo, H Correa, C Bazet, E Ormaechea, C Formento, S Bentancourt.

0613 - STUDY ON PNEUMONIA ASSOCIATED TO THE VENTILATOR AS PART OF THE INFECTIOUS VIGILANCE

M Gini, R García Turiella, D Rovira, G Arana, F Daminato, G Ceconi, E Barral.

0647 - PREDICTIVE FACTORS FOR THE INCIDENCE OF PNEUMONIA AFTER CARDIAC SURGERY - CLASSIFICATION AND REGRESSION TREE

M Santos, RV Gomes, PM Nogueira, MA Fernandes, K Senna, G Werneck, A Rouge, R Vegni, LA Campos, HF Dohmann.

12:30 to 14:00 - Posters Session 3.5**Catalinas "Pediatrics: respiratory and airway disorders"***Pediatrics/Critical care nursing*

Facilitators: Andrew Argent (South Africa)
Eduardo J. Troster (Brazil)
Pedro Celiny Ramos Garcia (Brazil)

0125 - DIAGNOSTIC EVALUATION OF FOREIGN BODY ASPIRATION IN CHILDREN; A PROSPECTIVE STUDY

Z Zonis, L Even, Y Talmon, E Samet, N Heno, A Kugelman.

0291 - ASSOCIATED FACTORS TO THE ADEQUATE DEPTH OF INSERTION OF THE OROTRACHEAL TUBE IN CHILDREN

JP Piva, GU Eckert, PCR Garcia, FU Bueno, E Baldasso.

0294 - BEE STINGS OF CHILDREN - WHEN TO PERFORM ENDOTRACHEAL INTUBATION?

R Tome.

0297 - HIGH-FREQUENCY OSCILLATORY VENTILATION IN PEDIATRIC PATIENTS WITH ACUTE RESPIRATORY FAILURE

N Ben Jaballah, A Khaldi, K Mnif, A Bouziri, S Belhadj, K Kazdaghli.

0324 - SPONTANEOUS PNEUMOMEDIASTINUM IN SHALLOW-WATER-DIVING. CASES REPORTS

P Cruces, A Donoso, R Ronco.

0459 - OUTCOMES OF PREMATURE NEWBORNS ACCORDING TO THE TYPE OF RESPIRATORY CARE ADMINISTERED ON THE FIRST 24 HOURS OF LIFE

SA Pereira, LS Ishiki, SH Murakami, G Castro, MS Nascimento, PN Dellavia.

0514 - NON INVASIVE VENTILATION IN PEDIATRIC INTENSIVE CARE UNIT

R Paiva, P Zambrano, M Drago, R Villena.

0519 - HIGH FREQUENCY OSCILLATORY VENTILATION AND INTRAOPERATIVE USE IN PEDIATRICS PATIENTS. CASES REPORTS

A Donoso, P Cruces, F Saitúa, P Herrera, J Camacho.

0588 - APPROACH OF RESPIRATORY DISEASES EVOLUTION IN THE PEDIATRIC INTENSIVE CARE UNIT UNDER RESPIRATORY PHYSIOTHERAPY INTERVENTION - 24 HOURS IN A GENERAL HOSPITAL IN SÃO PAULO

RC Santa Barbara, PM Santiago, EA Bixofis, CH Brito.

12:30 to 14:00 - Posters Session 3.6**Catalinas "Pediatrics: trauma and surgery"***Pediatrics/Trauma, emergency/Perioperative care*

Facilitators: Santiago Campos (Ecuador)
Lidia C. Albano (Argentina)

0075 - DEATH RISK FACTOR IN CHILDREN WITH TRAUMATIC BRAIN INJURY

MB Brandão, ADN Jácomo, AA Almeida-Jr, AE Lima, HJL Zambelli, CE Lopes.

0114 - IMMUNOLOGIC STATUS IN PEDIATRIC CARDIOSURGICAL PATIENTS WITH CHYLOTHORAX

L Kovacikova, M Lakomy, P Skrak, D Cingelova.

0161 - POST TRAUMATIC STRESS SYMPTOMS IN PATIENTS AND THEIR PARENTS AFTER ADMISSION TO PEDIATRIC INTENSIVE CARE

GA Colville, C Pierce.

0527 - GLYCEMIC LEVEL AND INTRACRANIAL PRESSURE IN CHILDREN WITH TRAUMATIC BRAIN INJURY

RG Branco, A Weiss, RC Tasker.

Monday August 29, 2005

- 0559** · NEAR DROWNING: EPIDEMIOLOGY OF PEDIATRIC NEAR DROWNING IN A SUBURBAN TERTIARY HOSPITAL
G García Guerra, S Torres, E Schnitzler, A Aruj, T Iolster, D Montes de Oca, F Burgos, F General, M Ospital.
- 0598** · CARDIOPULMONARY RESUSCITATION IN CHILDREN WITH CONGENITAL HEART DISEASE AT THE PEDIATRIC CARDIAC INTENSIVE CARE UNIT
V Illikova, L Kovacikova, P Skrak, P Sykora.
- 0639** · INFLUENCE OF GLYCEMIC LEVEL IN THE MORBIMORTALITY AFTER CARDIAC SURGERY IN CHILDREN
MY Chigutti, MC Negrelli, UA Crosti, RDR Liberatore Jr, MCR Ferreira.
- 0642** · ANALYSIS OF BEHAVIORAL CHANGES, RESPIRATORY AND HEMODYNAMIC EFFECTS FOLLOWING NASOTRACHEAL SUCTIONING IN CHILDREN FOLLOWING CONGENITAL HEART SURGERY
K Abud, P Sales, E Nozawa, MIZ Feltrim.
- 0593** · RESPIRATORY MECHANICS AND LUNG HISTOLOGY AFTER REFEEDING YOUNG UNDERNOURISHED RATS
CM Dias, CP Pássaro, VR Cagido, M Antunes, G Carvalho, R Soncini, WA Zin, PRM Rocco.
- 0606** · TIME COURSE OF RESPIRATORY MECHANICS AND LUNG HISTOLOGY IN ACUTE LUNG INJURY INDUCED BY CECAL LIGATION AND PUNCTURE
MBG Oliveira, SC Abreu, CFN Cerqueira, RN Gomes, DO Nascimento, PT Bozza, WA Zin, PRM Rocco.
- 0609** · FAT EMBOLISM AFTER LIPOSUCTION IN A YOUNG WOMAN
E Fernandez Rangel, VM Sanchez Nava, JJ Gutierrez Marfileño, FJM Perez Rada, E Rivas Valenzuela.
- 0625** · EFFECTS OF EXPIRATORY POSITIVE AIRWAY PRESSURE (EPAP) ON PULMONARY EPITHELIAL PERMEABILITY WITH 99MTC-DTPA: A CASE REPORT
D Paiva, CB Panta, IM Albuquerque, RLP Mattos, P Masiero, S Fernandes, B Spiro, SS Menna Barreto.
- 12:30 to 14:00 - Posters Session 3.7**
Catalinas **“Respiratory failure”**
Respiratory medicine/Pediatrics/Infection
- Facilitators:** Ola Stenqvist (Sweden)
 Marco Ranieri (Italy)
 Elisa Estenssoro (Argentina)
- 0167** · EXHALED CARBON MONOXIDE IN A MODEL OF ACUTE RESPIRATORY DISTRESS SYNDROME
FA Lima, FA Bozza, J Salluh, AV Pino, A Roncally, JHN Soares, F Jandre, A Graça-Souza, H Castro-Faria-Neto, A Giannella-Neto.
- 0208** · REGIONAL LUNG PERFUSION IS MORE UNIFORM IN THE PRONE THAN IN THE SUPINE POSTURE IN HEALTHY SUBJECTS DURING ANAESTHESIA AND MECHANICAL VENTILATION
M Mure, S Nyrén, P Radell, J Petersson, A Sánchez-Crespo, SA Larsson, H Jacobsson, R Glenný, SGE Lindahl.
- 0244** · THE INFLUENCE OF COLLAPSE AND REVENTILATION OF LUNG ON THE DEVELOPMENT OF PULMONARY EDEMA
S-S Chung, C-Y Jeong, S-H Kwak, W-J Jin, S-W Jeong.
- 0266** · UNDERSTANDING LUNG FUNCTION AND REMODELING BY A NOVEL EXPERIMENTAL MODEL OF SEVERE ASTHMA
PL Silva, CP Passaro, VR Cagido, DS Faffe, EL Magalhães, M Bozza, VL Capelozzi, M Dohnikoff, WA Zin, PRM Rocco.
- 0293** · EFFECTS OF PROPOFOL ON ENDOTOXIN-INDUCED ACUTE LUNG INJURY IN RABBITS
C-Y Jeong, S-S Chung, S-H Kwak, J-I Choi, J-T Park.
- 0581** · PLATELET-ACTIVATING FACTOR ACETYLHYDROLASE ACTIVITY IS INCREASED IN EARLY STAGES OF ACUTE LUNG INJURY
JIF Salluh, FA Bozza, AV Pino, EF Assis, RN Gomes, HSP Souza, A Gianella Neto, GA Zimmerman, HC Castro-Faria-Neto, PT Bozza.
- 12:30 to 14:00 - Posters Session 3.8**
Catalinas **“Epidemiology of mechanical ventilation - Respiratory care”**
Respiratory medicine
- Facilitators:** Robert M. Kacmarek (United States)
 Antonio Anzueto (United States)
 Sergio E. Giannasi (Argentina)
- 0021** · OUTCOME MEASUREMENT OF INSTILLATION OF 0.45% SALINE TO CATHETER SUCTION ON THE ENDOTRACHEAL PATIENTS
T Hsiu -Yi.
- 0035** · INTENSIVE CARE UNIT PATIENTS REQUIRING MECHANICAL VENTILATION: FREQUENCY, MORTALITY, CHARACTERISTICS AND MORTALITY RISK FACTORS
SRR Vieira, L Fialkow, MC Bozzetti, AA Valiati, AP Cioffi, JS Brauner, LF Mallmann, E Parollo, TC Lisboa, RB Moraes, MB Blom, R Zancanaro, LC Pereira, MC Michelin, FC Hauber, AM Güntzel.
- 0049** · DAILY EVALUATION PROFILE OF INVASIVE MECHANICAL VENTILATION IN A SURGICAL ICU
F Saddy, L Bustamante, MT Saint Martin, A Badih, D Hernandez, M Azevedo, JE Castro, JG Pantoja.
- 0076** · THE EFFICACY OF SUBGLOTTIC SECRETION DRAINAGE
LA Evans, PJ Young.
- 0372** · IMPACT OF MECHANICAL VENTILATION IN ICU PATIENTS A COMPARATIVE STUDY ACCORDING TO AGE
JE San Roman, SE Giannasi, AO Gallezio, C Castarataro.
- 0403** · COMPLICATIONS OF PATIENTS ON MECHANICAL RESPIRATORY ASSISTANCE IN THE ADULT INTENSIVE CARE UNIT OF THE HOSPITAL DE CLINICAS
H Caballero, H Bianco, C Montiel, J Sartori, S Alsina, S Baez, B Figueredo, C Ayala, R Farina.

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0473 · MODES OF VENTILATION IN BRAZILIAN ICUS

MPCD Damasceno, CMN David, PCSP Souza, P Mello, JL Amaral,
MD Magalhães, FS Dias.

0540 · PREDICTORS OF THE NEED FOR VENTILATORY SUPPORT > 24 HOURS IN THE POST OPERATIVE PERIOD OF CARDIAC SURGERY

SA Olival, RV Gomes, B Santos, J Ghisi, M Bezerra, W Homena,
L Alves, R Vegni, A Weksler, AF Assis, ON Barbosa, JOR Brito,
M Coimbra.

12:30 to 14:00 - Posters Session 3.9
Catalinas "Airway problems and techniques"

Respiratory medicine/Trauma,
emergency/Perioperative care

Facilitators: Andrés Esteban (Spain)
Néstor Raimondi (Argentina)
George J. Baltopoulos (Greece)

0054 · ULTRASOUND-GUIDED PERCUTANEOUS DILATATIONAL VS. SURGICAL TRACHEOTOMY IN PATIENTS WITH ANTERIOR CERVICAL SPINE FIXATION

A Sustic, Z Zupan, B Krstulovic.

0084 · OUTCOME IN PERCUTANEOUS TRACHEOTOMY WITH FORCEPS-DILATATIONAL TECHNIQUE WITHOUT BRONCHOSCOPY IN ICU

J España, M Capdevielle, C Pacheco, Z Parra, T Lopez, M Marcano.

0111 · THE PRESSOR RESPONSE AND AIRWAY EFFECTS OF CRICOID PRESSURE DURING INDUCTION OF GENERAL ANESTHESIA

M Masoudifar, M Saghaei.

0206 · PERCUTANEOUS TRACHEOSTOMY: CIAGLIA BLUE RHINO 4 YEAR EXPERIENCE

J Torres, M Valenzuela, J Schiller, M Sharp, G Nuñez, P Azocar,
C García, V Tomicic, C Canals.

0215 · EARLY OR DELAYED PERCUTANEOUS TRACHEOTOMY? A PROSPECTIVE, RANDOMIZED STUDY

N Raimondi, C Compagnone, G Chiappero, H Nuñez, I Previgliano,
A Cañizo, D Ceraso.

0241 · EMERGENCY MEDICINE RESIDENTS INTUBATION SKILLS: ANALYSIS OF 240 CASES

KF Prado, MV Furtado, FR Silva, CR Neumann.

0407 · EVALUATION OF PATIENTS WITH TRACHEOTOMY IN ADULT INTENSIVE CARE UNIT

S Gallo, H Bianco, S Baez, C Aldana, R Rojas, C Samaniego,
B Figueredo, C Ayala.

0423 · EXTUBATION: ARE WE KEEPING PATIENT NBM FOR EXCESSIVE PERIODS - PROSPECTIVE AUDITS ON PRACTICE

R Meyer, S Harrison, L Archibald, C Elwig, M Cooper.

0494 · AUDITING UNPLANNED EXTUBATION IN AN AUSTRALIAN CRITICAL CARE UNIT

KM Birkett, KA Southerland, GD Leslie.

0522 · INTRODUCTION OF A RAPID SEQUENCE INTUBATION PROTOCOL: ADHESION, SUCCESS AND COMPLICATION RATES

A Ventura, D Souza, A Bouso, G Costa, I Fernandes, J Fernandes.

12:30 to 14:00 - Posters Session 3.10
Catalinas "Scores and risk factors"

ICU management, quality of care, scores, IT

Facilitators: Jean Roger Le Gall (France)
Aldo J. Caruso (Argentina)
Margarita A. Torres Boden (Argentina)

0150 · EVALUATION OF THE OUTCOME OF SEVERELY ILL PATIENTS WITH HEAD AND NECK CANCER

M Soares, L Toscano, FL Dias.

0242 · EVALUATE ICU SURVIVAL PREDICTIONS BY PHYSICIANS IN COMPARISON WITH THE APACHE II SCORE INDEX

RD Moritz, RF Schwingel, FO Machado.

0270 · A COMPARISON OF TWO SCORING SYSTEMS FOR MORTALITY RISK (PIM AND PRISM I) IN A PEDIATRIC INTENSIVE CARE UNIT: PRELIMINARY RESULTS

V Radonsky, L Stuginski, E Zlochevsky, C Pacheco, T Carvalho,
T Matsumoto.

0352 · THE BALANCED SCORECARD AS THE EMERGENCY DEPARTMENT'S MANAGEMENT MODEL

G Jung, A Di Leoni Ferrari, EJ Jacques.

0381 · SPIC, THE BIRTH OF ONE SCORE FOR INTENSIVE OBSTETRICS PATIENTS

FM Soares, CE Roma, JP Souza, AO Neto, CF Ferreira, SP Gonçalves.

0406 · MORTALITY PREDICTORS IN A ONE YEAR COHORT OF ADULT PATIENTS IN A MEDICAL-SURGICAL ICU

FAC Alves, RP Oliveira, C Teixeira, TF Tonietto, RV Cremonese,
AS Machado, JH Barth, SFM Brodt, ES Oliveira, NB Silva.

0410 · SEVERITY OF DISEASE AND INFECTION WERE RELATED TO BAD OUTCOMES IN ELDERLY PATIENTS IN A GENERAL ICU

RP Oliveira, C Teixeira, TF Tonietto, RV Cremonese, JH Barth,
SFM Brodt, ES Oliveira, FAC Alves, NB Silva.

0424 · PROGNOSTIC MARKERS IN AN UNSELECTED POPULATION OF PATIENTS ADMITTED TO INTENSIVE CARE UNIT

VS Issa, MFR Silva, JMC Coelho, LU Taniguchi, LM Cruz-Neto,
IT Velasco.

0425 · SEQUENTIAL ORGAN FAILURE ASSESSMENT (SOFA) IN PATIENTS SUBMITTED TO MECHANICAL VENTILATION

MFR Silva, VS Issa, LU Taniguchi, LM Cruz-Neto, IT Velasco.

0428 · CURRENT CLINICAL CHARACTERISTICS AND PROGNOSIS OF ELDER PATIENTS ADMITTED TO INTENSIVE CARE UNIT

VS Issa, MFR Silva, JMC Coelho, LU Taniguchi, LM Cruz-Neto,
IT Velasco.

Monday August 29, 2005

Posters Session 4 - Catalinas Room

17:30 to 19:00 - Posters Session 4.1

Catalinas "Cardiac surgery"
Cardiovascular medicine/Perioperative care

Facilitators: Elias Knobel (Brazil)
Antonino Gullo (Italy)
Francisco J. Criado (Argentina)

0175 · ELECTROPHYSIOLOGICAL MONITORING DURING CARDIAC SURGERY IN HIGH-RISK PATIENTS

J Frdlik, T Hajek, I Holeckova.

0326 · CLINICAL IMPACT OF THE PROPHYLACTIC USE OF INTRA-AORTIC COUNTERPULSATION IN HIGH-RISK PATIENTS UNDERGOING MYOCARDIAL REVASCULARIZATION

W Homena, J Albuquerque, D Moreira, B Santos, A Weksler, R Vegni, A Pontes, S Olival, L Alves, F Gouveia, J Brito, R Gomes.

0331 · CLINICAL IMPACT OF ATRIAL ELECTRIC STABILIZATION IN PATIENTS WITH CHRONIC ATRIAL FIBRILLATION UNDERGOING CARDIAC SURGERY

W Homena, M Padilha, D Moreira, B Santos, F Gouveia, J Pedrosa, G Silva, L Alves, J Brito, R Gomes.

0334 · NEUROLOGIC COMPLICATIONS IN CARDIAC SURGERY: CAN RISK SCORES BE APPLIED?

W Homena, D Moreira, B Santos, M Nolasco, A Weksler, S Olival, R Vegni, A Pontes, L Alves, J Brito, R Gomes.

0414 · FACTORS RELATED TO MORTALITY IN THE POST-OPERATIVE OF THE CARDIAC SURGERY IN THE ADULT INTENSIVE CARE UNIT

S Gallo, H Bianco, M Venegas, M Noguera, S Baez, B Figueredo, C Ayala.

0536 · MECHANICAL CIRCULATORY ASSISTANCE AS A BRIDGE TO CARDIAC TRANSPLANTATION: IMPACT ON MORBIDITY AND MORTALITY

M Peradejordi Lastras, A Bertolotti, C Gomez, M Diez, L Favaloro, MP Varela Otero, J Abud, P Comignani, R Favaloro.

0640 · TAMPONADE IN THE POSTOPERATIVE PERIOD OF CARDIAC SURGERY: CAN RISK BE PREDICTED?

W Homena, D Moreira, D Kasal, B Abufaiad, A Squadri, B Santos, L Alves, S Olival, R Vegni, A Pontes, J Brito, A Casarsa, F Oliveira, R Gomes.

0652 · IN-HOSPITAL EVOLUTION OF PATIENTS WITH AN SCVO₂ GREATER THAN OR EQUAL TO 70% IN THE POSTOPERATIVE PERIOD OF CARDIAC SURGERY

PM Nogueira, RV Gomes, MA Fernandes, A Rouge, J Sabino, FG Aranha, LP Carvalho, R Vegni, C Karam, LA Campos, HF Dohmann, JR Rocco.

0655 · CAN CENTRAL VENOUS OXYGEN SATURATION INTERMITTENTLY MEASURED WITHIN THE FIRST 24 POSTOPERATIVE HOURS OF CARDIAC SURGERY PREDICT DEATH?

PM Nogueira, RV Gomes, MA Fernandes, A Rouge, FG Aranha, R Vegni, C Karam, B Barros, LA Campos, HF Dohmann, JR Rocco.

17:30 to 19:00 - Posters Session 4.2

Catalinas "Thromboembolic disease - anticoagulation in coronary syndromes"
Cardiovascular medicine

Facilitators: Marcelo Casey (Argentina)
Renato G. G. Terzi (Brazil)
Jorge E. Ubaldini (Argentina)

0027 · TRIAGE DIFFICULTIES AND NURSING CARE IN PATIENTS WITH PULMONARY EMBOLISM IN THE MEDICAL EMERGENCY DEPARTMENT

D Satosek, M Cotic-Anderle.

0089 · RESOLUTION OF RETROPERITONEAL HEMATOMA POST-ENDOVASCULAR PROCEDURE USING RECOMBINANT ACTIVATED VII FACTOR IN AN ANTICOAGULATED PATIENT WITH WARFARIN WITHOUT NECESSITY OF SURGICAL CORRECTION

JAM Paramo, AV Ristow, AA Albuquerque, TC Furtado, LR Valim, F Thomaz, RA Chicrala.

0333 · SAFETY AND EFFICACY OF ENOXAPARIN DURING PERCUTANEOUS CORONARY INTERVENTION: ANALYSIS OF 282 PATIENTS

S Sá Jr, F Braga, J Kezen, G Nobre, M Carvalho, C Vilella, F Afonso, J Mansur, L Antelo, C Akstein.

0340 · SAFETY AND EFFICACY PROFILE OF COMBINED THERAPY WITH ENOXAPARIN AND TIROFIBAN IN PATIENTS WITH NON-ST ELEVATION ACUTE CORONARY SYNDROME

S Sá Jr, F Braga, J Mansur, M Carvalho, J Kezen, F Afonso, L Gustavo, C Vilella.

0342 · THE USE OF ENOXAPARIN IN ACUTE CORONARY SYNDROME ONSET. THE IMPORTANCE OF DO NOT CROSSOVER HEPARINS

S Sá Jr, F Braga, G Nobre, M Carvalho, P Nogueiras, F Afonso, C Vilella, J Kezen.

0345 · USE OF ENOXAPARIN IN THE MANAGEMENT OF NON-ST ELEVATION ACUTE CORONARY SYNDROME DURING PERCUTANEOUS CORONARY INTERVENTION: INTRAVENOUS BOLUS DOSE OR NOT?

S Sá Jr, F Braga, J Mansur, G Nobre, P Nogueiras, C Vilella, F Afonso, C Akstein, L Antelo, J Kezen.

0366 · INFLUENCE OF THE ORAL ANTICOAGULATION ON D-DIMER LEVELS IN PATIENTS WITH ADVANCED HEART FAILURE

MI Bittencourt, RM Rocha, HCV Rey, F Ferreira, FT Oliveira, FLB Gutierrez, FOD Rangel, R Esporcatte.

0427 · PLASMA AND PLATELET APHAERESIS TRANSFUSION INCREASE MORTALITY RATE IN PATIENTS WITH APACHE II SCORE BELOW 25 POINTS

GF Vazquez de Anda, C Zuñiga Velazquez, R Pineda, G Rendon Martinez, C Tlapanco, JA Arzate Villafaña.

0449 · USEFULNESS OF THROMBOELASTOGRAPHY IN CRITICAL CARE PATIENTS

P Gutierrez, P Ortega, G Mendoza, G Campos, O Lopez, P Gutierrez, L Hernandez.

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0502 · PROPHYLAXIS OF VENOUS THROMBOEMBOLISM IN A OPEN ASSISTENCIAL MODEL OF INTENSIVE CARE UNIT (ICU)
JA Victorino, MC Moraes.

0627 · THROMBOPROPHYLAXIS BEFORE PULMONARY EMBOLISM
JE Ubaldini, AL Campos, S Bauque, O Grek, MA Veltri, P Young, M Melero, FJ Chertcoff, JA Mazzei.

17:30 to 19:00 - Posters Session 4.3
Catalinas "Ethics"
Ethics/Critical care nursing

Facilitators: Gabriel d'Empaire (Venezuela)
Mario Sebastiani (Argentina)
Juan M. Butera (Argentina)
Shin Ok Koh (Korea)

0026 · MEDICAL FUTILITY AND RESPIRATORY FAILURE: A PROSPECTIVE COHORT STUDY
CC Batista, MA Goldbaum-Jr, F Sztiller, JR Goldim, CC Fritscher.

0050 · KNOWLEDGE OF THE NURSING PROFESSIONALS CONCERNING THE ATTENDANCE TO THE CHILDREN WITH STOPPED CARDIO-RESPIRATORY
RMC Coutinho, EMS Amaral.

0097 · EUTHANASIA, QUALITY OF LIFE AND RETIREMENT OF VITAL SUPPORT. STUDY IN 5 CRITICAL CARE CENTERS
P Valdez, C Fukuda, D Elisabe, M Albornoz, M Mardyks, B Abaz, N Mano, S Vericimo, L Vasta.

0267 · EVALUATION OF THE DECISIONAL CAPACITY ABOUT END OF LIFE OF THE PATIENTS DURING THEIR STAY IN INTENSIVE CARE UNIT
M Torres Boden, V Picolla, R Fiorentino, R Mattei, A Arata.

0309 · WITHDRAWAL OR WITHHOLDING THERAPEUTIC EFFORTS GUIDES IN INTENSIVE CARE UNITS. REPRESENTING AN ATTEMPT TO ENHANCE MEDICAL ATTENTION AT THE END OF LIFE
S Salva, JC Pal, G D Empaire, MA D Empaire, D Urbina.

0395 · "HOW SWEET IT IS TO DIE IN COPACABANA PALACE HOTEL" - QUALITY OF LIFE VS. QUALITY OF DEATH
M Knibel, C Roderjan, R Hatum, E Guimarães, M Lugarinho, M Matos, A Vanzan, C Vasconcelos.

0401 · FOLLOW UP OF SUSPENSION OF TREATMENT IN INTENSIVE CARE UNIT
M Knibel, C Roderjan, R Hatum, E Guimarães, M Lugarinho, C Vasconcelos, M Matos, A Vanzan.

0453 · REFUSED PATIENTS IN INTENSIVE CARE UNIT
H Bianco, F Ferreira, F Romero, S Baez, B Figueredo, C Ayala, J Sartori.

0487 · FAMILIES' PERCEPTION ON COMMUNICATION IN AN INTENSIVE CARE UNIT
K Kitajima, M Cosmo, M Rodrigues, P Godoy.

0680 · FORGOING LIFE SUPPORT TREATMENT IN THREE PICU IN SOUTHERN BRAZIL IN A PERIOD OF 14 YEARS
PM Lago, JP Piva, PC Garcia, DJ Kipper.

17:30 to 19:00 - Posters Session 4.4
Catalinas "Quality of care"
ICU management, quality of care, scores, IT /Critical care nursing

Facilitators: Malcolm Fisher (Australia)
Graciela B. Cueto (Argentina)
Viviana Wolanow (Argentina)

0276 · QUALITY OF CARE ON AN INTENSIVE CARE UNIT (ICU): USING SUBJECTIVE INDICATORS AS ANALYSIS TOOL
M Knibel, R Hatum, C David.

0287 · SUBJECTIVE QUALITY INDICATORS AND MEDICAL TEAM PERFORMANCE: FORMAL MEASURING VALUE
M Knibel, L Castro, R Hatum.

0312 · ASSESSMENT OF PATIENT AND FAMILY SATISFACTION RATING AFTER ICU DISCHARGE
G Ceconi, R García Turiella, D Rovira, R Guidi, F Daminato, E Barral, G Arana.

0389 · QUALITY OF CARE ON AN INTENSIVE CARE UNIT (ICU): USING OBJECTIVE INDICATORS AS ANALYSIS TOOLS
M Knibel, R Hatum, C David.

0475 · QUALITY OF LIFE AFTER DISCHARGE OF ICU: OUR EXPERIENCE
L Vetere, P Farina, L De Janon, P Cueto Quintana, M Arista, S Fini, L Vasta, S Arcieri, A Botbol.

0629 · SATISFACTION QUESTIONNAIRE IN RELATIVES OF PEDIATRIC PATIENTS IN AN INTENSIVE CARE UNIT
R Acquesta, M Garea, M Gutiérrez, S Coll, F Boccadoro, A Chattás, F Olazarri.

0662 · HAS THE PATIENT'S LIFE QUALITY BEFORE ADMISSION INFLUENCE ON THE SEVERITY OF ILLNESS AND MORTALITY IN THE INTENSIVE CARE UNIT?
SSV Zanei, NP Tereran.

17:30 to 19:00 - Posters Session 4.5
Catalinas "Traumatic brain injury"
Neurocritical care/Trauma, emergency

Facilitators: Patrick M. Kochanek (United States)
Walter Videtta (Argentina)
Pablo J. Schoon (Argentina)

0230 · DETERMINATION OF ENZYME ACTIVITY IN SERUM AND LIQUOR AND ITS IMPORTANCE FOR THE CLINICAL COURSE AND OUTCOME IN PATIENTS WITH SEVERE TRAUMATIC HEAD INJURY
B Djurovic, D Pejak, D Stankovic, R Krunic-Protic, G Tasic, V Jovanovic.

0255 · CHRONIC SUBDURAL HEMATOMA (CSDH) IN THE ELDERLY A FORGOTTEN ENTITY IN NEUROCRITICAL CARE?
DA Godoy.

0272 · BRAIN INJURY IN EUROPE: AN EPIDEMIOLOGICAL APPROACH
F Tagliaferri, C Compagnone, M Korsic, F Servadei, J Kraus.

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- 0390** · EFFECTS OF RESPIRATORY PHYSIOTHERAPY AND PASSIVE MOBILIZATION ON INTRACRANIAL PRESSURE
SN Nemer, V Godinho, T Clipes, M Rocha, L Mendonça, V Godinho, R Maia, J Caldeira, C Geraldo, LM Azeredo, PCP Souza.
- 0498** · A STUDY OF 749 CONSECUTIVE CASES OF SEVERE HEAD TRAUMA FROM 1994 TO 2004 IN FLORIANOPOLIS, BRAZIL
ET Martins, TS Silva, M Coutinho, LA Rigo, JN Meinertz, FO Machado.
- 0508** · PROGNOSTICS FACTORS OF IN HOSPITAL MORTALITY IN SEVERE HEAD TRAUMA: STUDY OF 749 CASES
ET Martins, JN Meinertz, LA Rigo, TS Silva, R Walz.
- 0541** · THE IMPACT ON OUTCOMES OF USING THE AMERICAN GUIDES FOR MANAGEMENT AND PROGNOSIS OF TRAUMATIC BRAIN INJURY
L Santos, P Bambaci, D Diulio, D Neila, L Bianchi.
- 0558** · COMPARING THE OUTCOME BETWEEN DECOMPRESSIVE CRANIOTOMY VERSUS BARBITURATES IN TRAUMATIC BRAIN INJURY
S Svampa, V Sciuto.
- 17:30 to 19:00** - Posters Session 4.6
Catalinas “Neurocritical care”
Neurocritical care
- Facilitators:** Franco Servadei (Italy)
Alberto Biestro (Uruguay)
Luis A. Camputaró (Argentina)
- 0012** · MORTALITY INDICATORS AMONG PATIENTS WITH ANEURISMAL SUBARACHNOID HEMORRHAGE
F Gambino, K Ugo, F Peliche, S Rapisarda.
- 0254** · INTRACRANIAL PRESSURE (ICP) MONITORING IN PATIENTS WITH THALAMIC AND PUTAMINAL HEMORRHAGES. PROSPECTIVE STUDY OF INFECTIOUS COMPLICATIONS
DA Godoy.
- 0256** · INTRACEREBRAL HEMORRHAGE (ICH) SCORE IN PATIENTS TREATED SURGICALLY
G Piñero, D Godoy, S Swampa, F Ciccioli.
- 0261** · INTRAVENOUS IMMUNOGLOBULIN THERAPY ON ICU PATIENTS WITH INFLAMMATORY DEMYELINATING POLYRADICULONEUROPATHY (GUILLAIN-BARRÉ SYNDROME): EXPERIENCE IN THREE YEARS
O Rojas, J España, C Pacheco, M Capdevielle, G Contreras.
- 0271** · CEREBRAL BLOOD FLOW AND TRANSCRANIAL DOPPLER IN SUBARACHNOID HEMORRHAGE PATIENTS UNDERGOING SEDATION AND ANALGESIA
F Tagliaferri, C Compagnone, G Sabia, A Tanfani, D Zappi, E Fainardi, M Ravaladini, L Targa, A Chierigato.
- 0301** · PROGNOSTIC SCORE IN THE INTRACEREBRAL HEMORRHAGE
ME Wallberg, ED Soloaga, MH Pérez, FJ Lombi, KL Lozano, SA Quadrelli, MA Veltri, FJ Chertcoff, JE Ubaldini.
- 0363** · TISSUE PLASMINOGEN ACTIVATOR FOR ACUTE ISCHEMIC STROKE WITHIN THREE HOURS WINDOW IN THE BUENOS AIRES BRITISH HOSPITAL
FJ Lombi, P Bonardo, RC Reisin, J Halfon, O Martinez, JE Ubaldini, ED Soloaga, MH Pérez, JV Mazzoti, HF Azcona, AA Chueco, RF Vaca Narvaja, MM Fernandez Parda.
- 0364** · AGGRESSIVE TREATMENT OF RUPTURED ANEURYSMS IN PATIENT IN POOR NEUROLOGICAL CONDITIONS (HUNT Y HESS GRADE 4-5)
MM Baccanelli, JM Zaloff Dakoff, L Langhi, AT Rabadan, R Garcia Monaco, O Peralta, LA Camputaró.
- 0524** · ANALYSIS OF THE VARIABLE ASSOCIATED TO MAP THE INCOME OF ICU MORTALITY ON THE SPONTANEOUS INTRACEREBRAL HEMATOMA (ICH)
L Camputaró, D Czerwonko, M Baccanelli, A Rabadan, O Gallezio.
- 17:30 to 19:00** - Posters Session 4.7
Catalinas “Research and publications”
Research and education/Critical care nursing
- Facilitators:** Christopher Bryan-Brown (United States)
Eduardo R. Capparelli (Argentina)
J. Eduardo San Román (Argentina)
- 0051** · INTENSIVE CARE MEDICINE CONTINUING EDUCATION AMONG MEDICAL STUDENTS: THE SOCIETY’S RESPONSIBILITY
R Goldwasser, G Macedo, C Acra, C David, S Com. Científ. Permanente.
- 0158** · STUDENT EVALUATION AND INTENSIVE CARE POST-GRADUATE UNIVERSITY COURSE SELF-EVALUATION PROTOCOLS
R García Turiella, D Rovira.
- 0432** · EDUCATION AND TRAINING IN CPR FOR HEALTHCARE PROFESSIONALS: AN EVIDENCE BASED PROCESS
A Gullo, R Sallusti, P Accolla, R Chicco, P Frassanito, D Medica, G Degrassi, C Consales.
- 0461** · EVALUATING THE GENERAL KNOWLEDGE OF PHYSICIANS FROM SALVADOR CITY (NORTHEAST BRAZIL) REGARDING TREATMENT OF PATIENTS WITH CARDIAC ARREST
N Filgueiras, AM Oliveira, AC Bandeira, T Delmondes, EAA Santos, CS Araújo, AS Lima Jr, A Rabelo Jr.

Tuesday August 30, 2005

Posters Session 5 - Catalinas Room

12:30 to 14:00 - Posters Session 5.1**Catalinas "Process of care I"**

ICU management, quality of care, scores, IT/Critical care nursing

Facilitators: Philip D. Lumb (United States)
Margarita A. Torres Boden (Argentina)
Carlos H. Bevilacqua (Argentina)

0098 · MEDICAL EMERGENCY TEAM: ICU SANS FRONTIERS
N Ramakrishnan, BK Abraham, JR Raja.

0126 · CPR SURPRISE DRILLS: AN INSTRUMENT TO IMPROVE PERFORMANCE IN RESUSCITATION
Z Zonis, Z Zohar, S Ivry, A Sa'ab, A Eisenman, E Shtainer, F Zveibil.

0129 · PROCEDURAL PAIN MANAGEMENT IN BURNED PATIENTS: EXPERIENCE WITH DEXMEDETOMIDINE
G Ramos, R Grillo, A Costa, R Capellari, R Castro, L Broggi, E Paniagua, E Armanasqui, A Bolgiani, G Prezzavento, F Benaim.

0275 · EVALUATION OF DEATHS IN AN INTENSIVE CARE UNIT OF A BRAZILIAN UNIVERSITY HOSPITAL
RD Moritz, FO Machado.

0343 · TRENDS OF AGE UTILIZATION IN ICU RESOURCES ARE MATCHED BY POPULATION AGING PROCESS IN BRAZIL
MG Rocha, D Schout, SC Oliveira, M Knibel.

0356 · CARDIAC ARREST INCIDENCE DURING ANESTHESIA AND SURGERY IN A SURVEY FROM 1996 TO 2002 AT A TERTIARY TEACHING HOSPITAL
LG Braz, NSP Módolo, JRC Braz, P Nascimento Jr, LR Carvalho, MG Braz.

0380 · FAMILIES PSYCHOLOGICAL SUPPORT IN INTENSIVE CARE UNIT. EIGHT YEARS EXPERIENCE
C Mujica, M Parada, G d'Empaire.

0394 · SURVIVAL INVESTMENT FOR DRUGS AND SUPPLIES IN CRITICAL CARE PATIENTS
T Mondragon Rangel, GF Vazquez de Anda, A Mondragon Rangel, FM Gomez Martinez, A Jimenez Becerril, JA Arzate Villafaña.

0503 · STRESS ULCER PROPHYLAXIS PROTOCOL IN INTENSIVE CARE UNIT (ICU)
JA Victorino, MC Moraes.

0506 · DISTRIBUTION OF OPEN AND CLOSED ICU AND HIGH CARE FACILITIES IN SOUTH AFRICA
J Scribante, S Bhagwanjee, H Perrie, SA Ccssa Council.

12:30 to 14:00 - Posters Session 5.2**Catalinas "Process of care II"**

ICU management, quality of care, scores, IT/Critical care nursing

Facilitators: Rui P. Moreno (Portugal)
Graciela B. Cueto (Argentina)
Mireia Subirana (Spain)

0510 · MEDICAL AND NURSING PROFILE OF ICU/HC PRACTITIONERS IN SOUTH AFRICA

J Scribante, S Bhagwanjee, H Perrie, SA Ccssa Council.

0516 · DEMOGRAPHIC DISTRIBUTION OF ICU AND HIGH CARE FACILITIES IN SOUTH AFRICA

H Perrie, J Scribante, S Bhagwanjee, SA Ccssa Council.

0530 · EMOTIONAL ASPECTS OF PATIENTS' RELATIVES ADMITTED TO AN INTENSIVE CARE UNIT

KA Casarini, EMF Seidl, R Gorayeb, A Basile-Filho.

0548 · PREVALENCE OF LONG STAY PATIENTS AT INTENSIVE CARE UNITS IN RIO DE JANEIRO BRAZIL

M Gomes, L Lorenzine, E Moreira, A Barbosa, P Kurtz, L Aguiar, R Heifer, C Ruiz, A Vianna.

0577 · THE INTERNATIONAL STANDARD ORGANIZATION 9001-2000 CERTIFICATION IMPROVES THE PROCESS OF ATTENTION IN THE EMERGENCY ROOM

GF Vazquez de Anda, M Martinez M, A Rubi D, M Arzate, G Alcazar F, JA Arzate V.

0589 · BLOOD LOSS CAUSED BY LABORATORY TESTS PERFORMED IN INTENSIVE CARE PATIENTS

JP Marafon, ML Kaufmann, TGH Osnten, DP Marafon, CA Cochlar.

0620 · THE RELATIVES' PRESCRIPTION: AN INCLUSION STRATEGY
AL Ribeiro, M Knibel, A Mota, C Cordier, M Di Calafiori, R Hatum, C Roderjan.

0622 · GOOD NIGHT KIT: A STRATEGY TO WORK WITH NOISE IN THE INTENSIVE CARE UNIT (ICU)

AL Ribeiro, M Knibel, A Mota, C Cordier, M Calafiori, R Hatum, C Roderjan.

0643 · BEHAVIOR OF CENTRAL VENOUS CATHETERIZATION IN THE INTENSIVE CARE UNIT

F Zanon, LA Palma, B Zanon, E Rosso, D Marcolin, E Goellner.

0650 · REGIONAL BLOCK AND INTENSIVE CARE. FUTURE OR FLASHBACK

AVS Moll, ELA Mattos, JR Moll, FAL Lopes.

0671 · OXYGEN CONCENTRATORS VERSUS BULKED CRYOGENIC OXYGEN

AVS Moll, JR Moll, LEP Silva.

12:30 to 14:00 - Posters Session 5.3**Catalinas "Surgical and obstetric patients"**

ICU management, quality of care, scores, IT/Infection/Perioperative care

Facilitators: Shirish Prayag (India)
Carlos A. Castarataro (Argentina)
Gustavo Paredes (Ecuador)

0023 · OUTCOME PREDICTION IN CRITICALLY ILL OBSTETRIC AND GYNECOLOGY PATIENTS

F Paruk, S Bhagwanjee, P Becker, DJJ Muckart, J Moodley.

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- 0113** · CRITICALLY ILL OBSTETRIC AND GYNECOLOGY PATIENTS: A PROSPECTIVE AUDIT OF 260 CASES
F Paruk, S Bhagwanjee, P Becker, DJJ Muckart, J Moodley.
- 0122** · INTRA-ABDOMINAL HYPERTENSION IN CRITICAL CARE
J Rojas, W Torres, M Bueno, V Mauricio, M Candiotti.
- 0123** · MORTALITY IN PATIENTS WITH INTRABDOMINAL HYPERTENSION IN CRITICAL CARE
J Rojas, V Mauricio, M Bueno.
- 0134** · POPULATION OF OBSTETRICS PATIENTS ADMITTED IN ICU
G Zakalik, A Chena, J Marengo, R Fernandez.
- 0224** · SEVERE ACUTE PANCREATITIS IN SPAIN. IMPACT OF THE "NATIONAL 2004 CONSENSUS CONFERENCE IN PAMPLONA". 1ª PHASE
E Maraví, I Jiménez, A Tellería, J Escuchuri, A Gutiérrez, O Lozano.
- 0373** · IN A TOCOGYNECOLOGICAL UCI: WHICH SCORE PHYSIOLOGICAL TO USE?
EM Soares, CE Roma, JP Souza, AO Neto, CR Ferreira, SP Gonçalves.
- 12:30 to 14:00** - Posters Session 5.4
Catalinas "Pediatric nursing I"
Critical care nursing/Pediatrics
- Facilitators:** Jaime Forero (Colombia)
Beverley Copnell (Australia)
Maureen Madden (United States)
Ariel Palacios (Argentina)
- 0010** · ASSESSMENT OF THE NEAR DROWNING CHILD
F Martens, J Ramet.
- 0300** · A CHANGE MANAGEMENT PROJECT TO IMPROVE BREASTFEEDING INITIATION WITHIN A PEDIATRIC INTENSIVE CARE UNIT USING AN ACTION RESEARCH APPROACH
GM Thompson.
- 0320** · CONTINUOUS HEMOFILTRATION IN PEDIATRIC CRITICAL CARE PATIENTS
A Del Rio, B Fernandez, J Llosa, I Fuentes, A Donoso.
- 0360** · TRANSTHORACIC INTRACARDIAC CATHETERS IN CHILDREN SUBMITTED TO CARDIAC SURGERY: COMPLICATION DURING THE USE AND THE WITHDRAWAL
R Mantovani, MN Chaud, MLG Pedreira, WB Carvalho.
- 0361** · SEDATION OF CHILDREN IN MECHANICAL PULMONARY VENTILATION: CONCORDANCE BETWEEN CLINICAL ASSESSMENT, COMFORT AND RAMSAY SCALES
DM Kusahara, RC Rego, MLG Pedreira, MAS Peterlini, WB Carvalho.
- 0368** · VARIABILITY IN THE LOCALIZATION OF EXTERNAL REFERENCE POINT FOR CENTRAL VENOUS PRESSURE MEASUREMENT IN CHILDREN
MLG Pedreira, ASC Belela, MAS Peterlini, GCG Gentil, DM Kusahara, WB Carvalho.
- 0388** · INVESTIGATION OF CHILDREN'S MAIN NURSING PROBLEMS ADMITTED TO THE PEDIATRIC INTENSIVE CARE UNIT: CASE REPORT
G Tayar, RP Santos, DP Dal'Ge.
- 12:30 to 14:00** - Posters Session 5.5
Catalinas "Pediatric nursing II"
Critical care nursing/Pediatrics
- Facilitators:** Ana Quiroga (Argentina)
Bettina von Dessauer (Chile)
Birte Baktoft (Denmark)
Carolina Astoul Bonorino (Argentina)
- 0397** · DOMESTIC VIOLENCE AGAINST CHILDREN AND TEENAGERS: DOCTORS' AND NURSES' KNOWLEDGE
CB Fran, MJ Hara.
- 0400** · PROPOSAL OF AN ALGORITHM FOR DETERMINATION OF DRESSINGS, SECOND TYPE OF OPEN INJURY IN CHILDREN
G Tayar, MA Peterlini, MLG Pedreira.
- 0405** · THE APPLICATION OF BISPECTRAL INDEX (BIS) MONITORING IN THE PEDIATRIC INTENSIVE CARE UNIT: NURSING AND TECHNOLOGY
BC Alve, CB Fran, FC Regi, RP Sant.
- 0553** · CASE REPORT: APPLICATION AND MAINTENANCE OF PERIPHERALLY INSERTED CENTRAL CATHETERS IN A PEDIATRIC INTENSIVE CARE UNIT
RP Santos, AAR Souza, LB Cunha, AS Pereira.
- 0580** · ACCIDENTAL EXTUBATION IN A PEDIATRIC INTENSIVE CARE UNIT
RP Santos, SB Marchini, V Sekkel.
- 0592** · PREMATURE NEWBORN PARENTS CONCERNS ABOUT THE DISCHARGE FROM NEONATAL INTENSIVE CARE UNIT
FS Balbino, VL Barbosa, M Naganuma.
- 0595** · LIVING THE MOMENT OF HOSPITAL DISCHARGE OF THE PREMATURE NEWBORN FROM NEONATAL INTENSIVE CARE UNIT: FEELINGS EXPRESSED BY PARENTS
MJ Avena, FS Balbino, VL Barbosa, M Naganuma.
- 0611** · NEWBORN THERMAL REGULATION: A NURSERY PROTOCOL
MF Diz, CL Camargo, MTA Calasans, TF Batista, NS Oliveira, TSM Barsosa, MS Araujo, T Oliveira, A Ribeiro, G Rego, NCC Melo, CML Valente.
- 12:30 to 14:00** - Posters Session 5.6
Catalinas "Sepsis: pathophysiology"
Shock and sepsis
- Facilitators:** Jukka Takala (Switzerland)
Konrad Reinhart (Germany)
Juan José Poderoso (Argentina)
- 0121** · A PROTEOMIC STUDY OF SEPSIS CAUSED BY GRAM-NEGATIVE BACTERIA
AJC Soares, MF Santos, M Junqueira, CMN David, GB Domont.

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0170 · PLASMA AMINO ACIDS IN CRITICALLY ILL PATIENTS*MG Rodrigues, DR Salgado, F Ruzany, RAN Paiva.***0183** · METABOLIC ACID BASE STATUS OF CRITICALLY ILL SEPTIC PATIENTS: A QUANTITATIVE LONGITUDINAL STUDY*DT Noritomi, SB Cappi, AB Libório, AC Nogueira, WY Hoshino, LC Inaba, FG Soriano, M Park.***0253** · ASSESSING ACID-BASE DISORDERS IN PATIENTS WITH SEPTIC SHOCK: TRADITIONAL AND PHYSICOCHEMICAL APPROACHES*JR Rocco, M Soares.***0415** · MECHANISMS OF INCREASED SUSCEPTIBILITY TO SEPTIC AND ENDOTOXIC SHOCK IN MCP-1/CCL-2 DEFICIENT MICE: ROLE OF MIF*RN Gomes, FA Bozza, RT Figueiredo, P Pacheco, AP Lorangeira, RT Amâncio, HC Castro-Faria-Neto, PT Bozza, MT Bozza.***0431** · THE ROLE OF IRON IN ALTERING IMMUNITY IN THE FACE OF INFLAMMATION AND INFECTION UTILIZING A MURINE MODEL OF SEPSIS*RJ Fuchs, S Pin, X Xu, ZL Harris.***0531** · KINETICS OF TNF RELATED ACTIVATION PROTEIN (TRAP) AND MACROPHAGE CHEMOATTRACTANT PROTEIN-1 (MCP-1) AFTER CARDIOPULMONARY BYPASS (CPB)*HTF Mendonça-Filho, KC Pereira, GS Gomes, M Fontes, MLAF Mendonça, HFR Dohmann.***0614** · 13CO₂ RECOVERY FRACTION IN EXPIRED AIR OF SEPTIC PATIENTS UNDER MECHANICAL VENTILATION*MA Martins, MT Battiston, NMM Passos, JS Marchini, A Basile-Filho.***12:30 to 14:00** - Posters Session 5.7**Catalinas** "Sepsis: clinical and experimental treatment II"
*Shock and sepsis/Infection***Facilitators:** Joe Carcillo (United States)
Gilberto Friedman (Brazil)
Gastón Murias (Argentina)**0015** · BENEFICIAL EFFECTS OF ALKALINE PHOSPHATASE ADMINISTRATION IN A EWE SEPTIC SHOCK MODEL*F Su, R Brands, Z Wang, V Colin, A Bruhn, Y Cai, V Jean-Louis.***0102** · PERIOPERATIVE GLUCOCORTICOID ADMINISTRATION FOR PREVENTION OF SYSTEM ORGAN FAILURE IN PATIENTS UNDERGOING ESOPHAGEAL RESECTION FOR ESOPHAGEAL CARCINOMA*AM Raimondi, HP Guimarães, JLG Amaral.***0151** · EXPERIENCE WITH DROTRECIGIN ALFA (ACTIVATED) IN A POLYVALENT INTENSIVE CARE UNIT BY USING A CLINICAL PRACTICE PROTOCOL*O Rodríguez-Colomo, J Blanquer-Olivas, A Mesejo-Arismendi, JA Carrera-Hueso, A Oliva-Gimeno, N Chafer-Placencia.***0153** · GENDER AND HORMONAL MANIPULATION EFFECT ON MORTALITY AND PULMONARY LESION IN THE SEPSIS MURINE CECAL LIGATION AND PUNCTURE MODEL*R Carrillo-Esper, L Romano-Estrada, CH Santeliz, V Contreras-Domínguez, R Carvajal-Ramos.***0163** · AMINO ACIDS ADHERENCE IN CONTINUOUS RENAL REPLACEMENT THERAPIES*MG Rodrigues, DR Salgado, RNA Paiva, F Ruzany, CF Valente.***0205** · USE OF RECOMBINANT ACTIVATED FACTOR VII (RFVIIA) IN PEDIATRIC SEPTIC SHOCK WITH DISSEMINATED INTRAVASCULAR COAGULATION AND SEVERE BLEEDING - CASE REPORT*A Bousso, A Stape, E Troster, J Pinus, M Rocha.***0264** · ALBUMIN FOR FLUID REPLACEMENT IN SEPTIC SHOCK: EARLY RESULTS FROM SEPSIS BRAZIL STUDY*R Hatum, C David, J Andrade, M Knibel, M Gomes, J Duarte, M Damasceno, J Pinto.***0286** · GLUCOSE CONTROL AND MORTALITY RATE IN SEPTIC SHOCK: EARLY RESULTS FROM SEPSIS BRAZIL STUDY*R Hatum, J Andrade, C David, J Pinto, M Knibel, M Damasceno, J Duarte, M Gomes.***12:30 to 14:00** - Posters Session 5.8**Catalinas** "Shock"
*Shock and sepsis/Cardiovascular medicine***Facilitators:** Michael Pinsky (United States)
Néstor A. Wainsztein (Argentina)
Arnaldo Dubin (Argentina)**0008** · RELATIONSHIP BETWEEN ORTHOSTATIC HYPOTENSION AND POSTPRANDIAL HYPOTENSION*CL Lee, SJ Tzou.***0038** · THE USE TO METHYLEN BLUE IN VASOPLEGIC SYNDROME AFTER CARDIAC SURGERY*ML Baptista, VS Morimitsu, LA Ribeiro, F Brunori, JC Brandão, CNP Conceição, JE Succi, RB Dauar, JA Aidar, FG Abdulmassih.***0222** · THE IMPACT OF EARLY RECOGNITION OF CARDIAC DECOMPENSATION IN THE MANAGEMENT OF INTRAAORTIC BALLOON COUNTERPULSATION WEANING*PA Lewis, M Courtney, D Mullany, R Ballantyne.***0278** · EFFECTS OF NITROGLYCERIN ON CARDIAC OUTPUT MEASURED BY PULSECO™*K Yamashita, T Nishiyama, T Yokoyama, H Abe, M Manabe.***0327** · CARDIOGENIC SHOCK: AN EXPERIMENTAL ANIMAL MODEL
*C Tanamati, M Monachini, M Cantarelli, PV Khoury, GA Amarante, P Martins, F Coelho, G Schettino.***0550** · SYSTOLIC PRESSURE VARIATION DURING VOLUME OR PRESSURE CONTROLLED VENTILATION. EXPERIMENTAL STUDY IN RABBITS*JOC Auler Jr, EB Fonseca, F Bliacheriene, DA Otsuki, DT Fantoni.***0554** · RIGHT-VENTRICULAR END-DIASTOLIC VOLUME AND EJECTION FRACTION IN THE ASSESSMENT OF FLUID RESPONSE AFTER CARDIAC SURGERY*SM Jakob, M Roeck, M Wyler-Von Ballmoos, F Porta, H Bracht, B Baenziger, J Takala.*

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- 0632** · CLINICAL IMPACT OF THE VASOPLEGIA SYNDROME ON THE POSTOPERATIVE PERIOD OF CARDIAC SURGERY
W Homena, D Moreira, A Carmo, B Santos, G Gama, R Vegni, F Oliveira, A Casarsa, A Pontes, J Brito, S Olival, R Gomes.
- 0666** · HEMODYNAMIC ASSESSMENT BY TRANSPULMONARY THERMODILUTION DURING SUSTAINED HIGH AIRWAY PRESSURE IN PIGS
V Tomicic, J Graf, E Rodriguez, M Espinoza, JM Montes, J Abarca, C Canals.
- 12:30 to 14:00** - Posters Session 5.9
Catalinas **“Sepsis: tissue perfusion and myocardial dysfunction”**
Shock end sepsis/Cardiovascular medicine
- Facilitators:** Can Ince (Netherlands)
 Eliézer Silva (Brazil)
 Enrique Fairman (Argentina)
- 0045** · POTENTIAL ROLE OF POLY (ADP-RIBOSE) ACTIVATION IN THE PATHOGENESIS OF MYOCARDIAL CONTRACTILE DYSFUNCTION ASSOCIATED WITH HUMAN SEPTIC SHOCK
AC Nogueira, PA Lotufo, MM Bernik, EG Caldini, C Szabó, M Chen, A Teixeira, M Lins, S Cappi, F Soriano.
- 0091** · HEART DYSFUNCTION AND HEART RATE VARIABILITY PROGNOSIS IN SEPSIS
F Soriano, P Lotufo, M Bernik, M Seckler, M Miranda, A Colombo, V Kawabata, S Cappi, D Noritomi, W Hoshino, A Nogueira.
- 0137** · CORRELATION BETWEEN ARTERIAL LACTATE (LAC+) AND VENOARTERIAL PCO₂ DIFFERENCE (Δ PCO₂) / ARTERIOVENOUS O₂ CONTENT (CA-VO₂) RATIO OBTAINED USING CENTRAL VENOUS CATHETERS (CVC)
R Fernández, H Lamacchia, JC Arjona, M Grilli, L Parra, C Barada, W Vazquez.
- 0147** · RED BLOOD CELL DISTRIBUTION WIDTH CHANGES IN SEPTIC PATIENTS
R Carrillo-Esper, V Contreras-Domínguez.
- 0200** · MITOCHONDRIAL INJURY IN SEPSIS
F Soriano, C Valeri, P Biseli, E Borges, J Barradas, V Reze, T Soares, EG Caldini, PA Lotufo, M Bernik, K Sichier, AC Nogueira.
- 0223** · SPINAL CORD BLOOD FLOW CHANGES BY MIDAZOLAM DURING HYPOVOLEMIC SHOCK
T Nishiyama, T Yokoyama, K Yamashita.
- 0306** · HALOTHANE, SEVOFLURANE AND ISOFLURANE. DOES THE HALOGENATED ANESTHETIC MAKE A DIFFERENCE IN GASTROINTESTINAL TONOMETRIC DURING ANESTHESIA IN DOGS SUBMITTED TO HEMORRHAGIC SHOCK AND RESUSCITATION?
AE Silva, JRC Braz, WM Roberto, LR Carvalho.
- 0440** · INCIDENCE OF HEART RATE LOWER THAN 100 IN PATIENTS WITH SEVERE SEPSIS AND SEPTIC SHOCK AND RELATED FACTORS TO ITS OCCURRENCE
R Sanga, M Park, S Cappi, L Azevedo, L Cruz-Neto.

Posters Session 6 - Catalinas Room

- 17:30 to 19:00** - Posters Session 6.1
Catalinas **“Nursing: ICU organization”**
Critical care nursing
- Facilitators:** Shelley Schmollgruber (South Africa)
 Lilia L. Ortega Cruz (Mexico)
 Alejandra Parisotto (Argentina)
 Guillermo Nelson (Argentina)
- 0347** · INSERTION OF NURSES JUST GRADUATED IN THE INTENSIVE CARE UNIT THERAPY: WHAT ARE THEIR DIFFICULTIES AND HOW TO HELP THEM?
S Mori, KJ Nakagawa, IY Whitaker.
- 0350** · CHECKING AND MEASUREMENT OF NURSING ERRORS IN ICU
S Portella, A Carta, LM Contrin, G Simonato, MV Caldeira, L Beccari, MRL Jabur, SMA Lobo.
- 0377** · SISE, A TOOL TO SUPPORT THE NURSING SYSTEMATIZATION
FM Soares, CE Roma, CR Ferreira, SP Gonçalves.
- 0413** · FUNCTIONING GUIDELINES OF THE INTERMEDIATE CARE UNIT OF THE HOSPITAL DE CLINICAS CARACAS
Y Morales, Y Torres, E Piña, G D Empaire.
- 0480** · A NURSE INITIATED TELEPHONE FOLLOW UP SERVICE FOR FORMER GENERAL INTENSIVE CARE PATIENTS
S Mckinley, D Moran, R Elliott.
- 0518** · NURSING ACTIVITIES SCORE (NAS): AN APPLICATION METHOD
LA Gonçalves, KG Padilha.
- 0525** · RISK FACTORS FOR INTENSIVE CARE UNIT (ICU) READMISSIONS
BFC Santos, OFP Santos, LR Guastelli, CR Laselva, M Oliveira, M Cendoroglo, E Knobel.
- 17:30 to 19:00** - Posters Session 6.2
Catalinas **“Nursing: quality control”**
Critical care nursing
- Facilitators:** Rósa Thorsteinsdóttir (Iceland)
 Max Jonas (United Kingdom)
 Gerardo Jasso (Mexico)
- 0029** · COMPARISON OF NURSES AND PATIENTS ASSESSMENT OF SLEEP IN CRITICAL CARE
A Richardson, W Crow, E Coghill, C Turnock.

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0106 · IS IT POSSIBLE TO ORGANIZE POWERNAPPING DURING NIGHT SHIFT IN AN ICU?

AT Jepsen, L Damgaard.

0143 · PATIENTS' DREAMS AND UNREAL EXPERIENCES IN ICU AS RECALLED TWO YEARS AFTER DISCHARGE: COMPARISON WITH DELIRIUM STATUS DURING ADMISSION

BL Roberts, CM Rickard, D Rajbhandari, P Reynolds.

0144 · COMPARISON OF FACTUAL MEMORIES OF ICU EXPERIENCES AND DELIRIUM STATUS TWO YEARS AFTER DISCHARGE

BL Roberts, CM Rickard, D Rajbhandari, P Reynolds.

0157 · MEANINGS AND ATTITUDES: IS THERE ANY CORRELATION BETWEEN THESE TWO PSYCHOSOCIAL VARIABLES IN CARDIAC SURGERY PATIENTS?

AF Miranda, MCBJ Gallani, S Araújo.

0185 · PERCEPTION OF PAIN IN ONCOLOGIC AND NO ONCOLOGIC CHILDREN. A NURSING VIEW

FSV Tourinho-Pereira, MC Azzi, MFB Oliveira, T Ruzza, FA Pereira.

0288 · ICUCONNECT: COMMUNICATION BETWEEN INTENSIVE CARE CLINICIANS - IT'S ONLY A KEYSTROKE AWAY!

DC Kowal, K Rolls, AR Burrell.

0329 · NURSING CARE NEEDS AND THERAPEUTIC INTERVENTIONS IN INTENSIVE CARE UNITS: A COMPARATIVE STUDY OF ELDERLY AND NON-ELDERLY PATIENTS

KG Padilha, JT Ciampone, LA Gonçalves, FOM Maia.

0336 · DAILY NEEDS PROFILE FOR NURSING CARE IN AN INTENSIVE CARE UNIT: ANALYSIS BY NURSING ACTIVITIES SCORE (NAS)

KG Padilha, PC Garcia, EMA Finardi, RHK Hatarashi, SCT Bento.

0341 · COMPARISON OF PATIENT-CATEGORIZATION BY THE RUSH AND SAN JOAQUIN METHOD IN MEDICAL INTENSIVE CARE UNIT

V Zunkovic.

17:30 to 19:00 - Posters Session 6.3

Catalinas "Nursing: ethics and family approach"

Critical care nursing/Ethics

Facilitators: Dongoak Debbie Kim (Korea)
Mavilde da L.G. Pedreira (Brazil)
Susana Ryan (Argentina)
Mercedes Zamuner (Argentina)

0042 · THE CURRENT STATUS OF FAMILY BEREAVEMENT PROGRAMS IN AUSTRALIAN INTENSIVE CARE UNITS

ML Mitchell, K Valks, C Inglis-Simons.

0043 · IMPROVING TRANSFER FROM INTENSIVE CARE FOR FAMILIES AND NURSES BY USING A STRUCTURED INDIVIDUALIZED FORMAT

ML Mitchell.

0378 · CRITICAL CARE NURSES EXPERIENCE OF CARING FOR DYING PATIENTS: EXISTENTIAL DISTRESS AND EDUCATION NEEDS

SF Prestoy.

0605 · DEATH, AND ITS GIFT TO LIFE. A PHENOMENOLOGICAL STUDY OF THE EXPERIENCES OF ORGAN DONORS' RELATIVES DURING THE ORGAN DONATION PROCESS

A Oroy.

0636 · RELATIONSHIP BETWEEN CRITICAL PATIENT'S RELATIVES; RELATIONSHIP ICU NURSE – RELATIVES AND ITS INFLUENCE IN THE ABOVE MENTIONED RELATION

N Gómez, O Ortega.

17:30 to 19:00 - Posters Session 6.4

Catalinas "Nursing: cardio-respiratory diseases"

Critical care nursing/Cardiovascular medicine

Facilitators: Mireia Subirana (Spain)
Gordon Speed (New Zealand)
Silvia Margalejo (Argentina)
Marina di Prátula (Argentina)

0059 · HONG KONG PUBLIC AWARENESS OF CORONARY HEART DISEASE

CW Chan, V Lopez, DR Thompson.

0146 · RECORDS IN-HOSPITAL CARDIOPULMONARY RESUSCITATION: VALIDATE AND APPLICABILITY OF AN INSTRUMENT

AP Boaventura, IEM Araújo.

0462 · CHEST/RESPIRATORY SYMPTOMS OF CARDIAC TAMPONADE PATIENTS IN JAPAN

Y Ikematsu.

0491 · NURSE THEORETICAL TRAINING FOR THE ASSISTANCE TO A CARDIOPULMONARY RESUSCITATION

M Bellan Consorti, IE Araujo Muglia.

0660 · MEASURING NURSING WORKLOAD TO VERIFY NURSE: PATIENT RATIO IN A CARDIAC SURGERY INTENSIVE CARE UNIT

AJ Ducci, IY Whitaker.

17:30 to 19:00 - Posters Session 6.5

Catalinas "Liver failure"

Liver failure and transplantation

Facilitators: Julia Wendon (United Kingdom)
Francisco R. Klein (Argentina)

0087 · MORTALITY PREDICTORS IN ESOPHAGEAL VARICEAL BLEEDING DUE TO PORTAL HYPERTENSION IN HEPATIC CIRRHOTIC PATIENTS TREATED ENDOSCOPICALLY

J Berreta, D Kociak, MV Laplacetie, G Sandez, A Balducci, G Morales, N Dacuy, P Salgado.

0155 · NOVEL THERAPIES IN FULMINANT LIVER FAILURE: MOLECULAR ADSORBENT RECALCULATING SYSTEM (MARS) AND INCOMPATIBLE LIVER TRANSPLANT. CASE REPORT

R Dalmazzo, J Cordero, C Valverde, A Acuña, J Valenzuela, N Hernandez, L Acuña, S Soto, S Cassis, B Hunter, G Gonzalez, L Calabran, F Berwart, M Uribe, M Ferrario, J Godoy, E Buckel.

0304 · CIRRHOTICS ADMITTED TO THE INTENSIVE CARE UNIT: RISK FACTORS AFFECTING 6 WEEK SURVIVAL

C Hui, S Shaw.

0474 · PROGNOSIS OF CIRRHOTICS REQUIRING INTENSIVE CARE WITH UPPER GASTROINTESTINAL BLEEDING

C Hui, S Shaw, E Cholongitas, M Senzolo, D Patch, K Kwong, VN Nikolopoulou, AK Burroughs.

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- 0523** · EFFECT OF MELD SCORE IN THE EVOLUTION OF PATIENTS SUBMITTED TO LIVER TRANSPLANTATION
MT Sasaki, RAB Spanó, EMC Silva, MCC Machado.
- 0564** · CLINICAL AND PHYSIOTHERAPY EVOLUTION OF 105 PATIENTS SUBMITTED TO LIVER TRANSPLANTATION
EMC Silva, MT Sasaki, RAB Spanó, MCC Machado.
- 0590** · SOFA (SEQUENTIAL ORGAN FAILURE) AND FHF (FULMINANT HEPATIC FAILURE) A TOOL ON LIVER TRANSPLANTATION
G Cueto, D Rodriguez, E Braña, J Diaz, P Trigo, J Lendoire, A Arata, O Inventarza.
- 17:30 to 19:00** - Posters Session 6.6
Catalinas “Transplantation”
Liver failure and transplantation/Perioperative care
- Facilitators:** Andres T. Blei (United States)
Eduardo M. Sorkin (Argentina)
Graciela B. Cueto (Argentina)
- 0063** · NEUROLOGICAL COMPLICATIONS IN LIVER TRANSPLANT RECIPIENTS DURING ICU TREATMENT
A Spec Marn, K Videcnik Balazic, B Kremzar.
- 0139** · MANAGEMENT OF SEPTIC SHOCK IN A HEART-TRANSPLANT PATIENT. WHAT DO WE MEAN BY “STANDARD OF CARE”?
MA Mignini, F Lucchese, F Giordano, O Margarit.
- 0177** · ORTHOTROPIC LIVER TRANSPLANTATION (OLT) IN CHILDREN WITH ACUTE LIVER FAILURE
J Cordero, R Dalmazzo, J Valenzuela, C Valverde, N Hernandez, C Acuña, L Acuña, S Soto, S Cassis, F Bobenrieth, B Hunter, R Tejjas, C Hinspeter, M Uribe, M Ferrario, J Godoy, G Gonzalez, F Berwart, L Calabran, M Fredes, C Herzog, M Santander, C Nachar, E Buckel.
- 0181** · LIVER TRANSPLANTATION IN CHILDREN. TEN YEARS OF EXPERIENCE
R Dalmazzo, J Cordero, C Valverde, J Valenzuela, S Cassis, N Hernandez, C Acuña, L Acuña, S Soto, B Hunter, F Bobenrieth, R Tejjas, M Uribe, M Ferrario, J Godoy, G Gonzalez, F Berwart, L Calabran, C Herzog, M Santander, E Buckel.
- 0189** · ORGAN DONATION: IDENTIFYING OPPORTUNITIES FOR INTERVENTION
CS Tessmer, CL Araujo, JD Costa, M Böhlke, FC Barcellos.
- 0191** · DO PEOPLE ACCEPT BRAIN DEATH AS DEATH?
CS Tessmer, CL Araujo, JD Costa, M Böhlke, FC Barcellos.
- 0225** · COORDINATION AND DONATION OF “INTRA AND EXTRA-HOSPITAL” CADAVER DONORS. “THE PAMPLONA MODEL”. SEQUENCE OF TASKS PERFORMED 1992-2004
E Maraví-Poma, A Maraví-Aznar, R Teijeira, A Hidalgo, A Martín, Team Sos-Navarra.
- 0226** · COORDINATION AND DONATION OF “INTRA AND EXTRA-HOSPITAL” CADAVER DONORS “THE PAMPLONA MODEL”: RESULTS 1992-2004
E Maraví-Poma, FJ Alvarez-Lopategui, O Iturralde-Errea, E Compains, A Epelde, E Maraví-Aznar.
- 0438** · ORGAN DONATION: A CROSS CANADA PERSPECTIVE OF CRITICAL CARE NURSING PRACTICE
B Budz, R Starzomski.
- 0587** · SHORT TERM ICU OUTCOME PREDICTION IN LIVER TRANSPLANTATION FOR FULMINANT HEPATIC FAILURE
P Klin, S Yantorno, V Descalzi, H Solar Muñiz, S Perez Lloret, L Podesta, F Villamil, F Klein.
- 17:30 to 19:00** - Posters Session 6.7
Catalinas “Mechanical ventilation in ARDS patients - VILI”
Respiratory medicine
- Facilitators:** Marcelo Amato (Brazil)
Thomas Stewart (Canada)
Ricardo N. Valentini (Argentina)
- 0057** · PRESSURE CONTROLLED VENTILATION INDUCES LESS LUNG INJURY COMPARED WITH VOLUME CONTROLLED VENTILATION IN HEALTHY DOGS
D Dragosavac, MF Vendicto, PRG Barros, PF Peres, HP Jorge.
- 0079** · EARLY COMBINATIONS OF VENTILATION’S THERAPIES IN ACUTE RESPIRATORY DISTRESS SYNDROME USING HIGH FREQUENCY AND HELIUM
F Meurant.
- 0229** · BIPHASIC POSITIVE AIRWAY PRESSURE (BIPAP) VENTILATION: A USEFUL TOOL FOR THE CRITICAL CARE PATIENT?
D Gonzalez, I Previgliano, A Sarasino, J Angarola, D Ramos, V Grando, S Rojo, D Lerman, J Romero, D Ceraso.
- 0367** · LUNG MECHANICAL STRESSES INDUCED BY PROTECTIVE STRATEGIES IN ACUTE LUNG INJURY
CP Pássaro, PS Leme, CML Barbosa, MM Morales, DS Faffe, MB Amato, WA Zin, PRM Rocco.
- 0387** · A COMPARISON OF PRESSURE CONTROL INVERSE RATIO VENTILATION AND PRESSURE CONTROL VENTILATION IN PATIENTS WITH ARDS AND LUNG INJURY SCORE > 3.25
SN Nemer, I Seródio, E Farias, C Cadilhe, C Geraldo, J Dias, L Caldeiras, J Brust, C Savedra, L Silva, M Polycarpo, J Goulart, PCP Souza.
- 0418** · USE OF CONTINUOUS TRACHEAL INSUFLATION OF GASES IN THE ACUTE RESPIRATORY DISTRESS SYNDROME
J Leyria, CA Ardiles, B Stegmuller, J Vecchio, P Insaurralde.
- 0452** · DURATION OF INFLATION DURING ALVEOLAR RECRUITMENT: MECHANICAL AND HISTOLOGICAL EFFECTS
WA Zin, RS Contador, CSN Baez, DS Xisto, MCE Santana, DS Faffe, PRM Rocco.
- 0471** · BENEFICIAL EFFECTS OF RECRUITMENT MANEUVER DURING PRONE POSITION IN ACUTE LUNG INJURY
ABS Fernandes, G Capitano, MBG Oliveira, MCE Santana, G Rangel, MM Morales, A Gullo, WA Zin, PRM Rocco.
- 0545** · INFLUENCE OF ALVEOLAR RECRUITMENT MANEUVERS ON RESPIRATORY MECHANICS, VENTILATION AND PULMONARY PARENCHYMA DURING ACUTE LUNG INJURY CAUSED BY HYDROCHLORIC ACID: EXPERIMENTAL STUDY IN PIGS
DT Fantoni, AM Ambrosio, CK Marumo, DA Otsuki, CA Pasqualucci, P Maiorca, JOC Auler Jr.

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0549 · HEMODYNAMIC EFFECTS OF RECRUITMENT MANEUVERS DURING ACUTE LUNG INJURY BY HYDROCHLORIC ACID
JOC Auler Jr, CK Marumo, AM Ambrosio, DA Otsuki, CA Pasqualucci, DT Fantoni.

0565 · LUNG MECHANICAL STRESS INDUCED BY HIGH INSPIRATORY AIRFLOW
PRM Rocco, CSN Baez, SC Abreu, RM Lassance, LFM Prota, RC Figueira, MM Morales, VL Capelozzi, WA Zin.

17:30 to 19:00 - Posters Session 6.8.a

Catalinas “Non invasive ventilation”
Respiratory medicine

Facilitators: Gumersindo González Díaz (Spain)
 Carlos Carvalho (Brazil)

0053 · NON INVASIVE MECHANICAL VENTILATION PROFILE IN A GENERAL INTENSIVE CARE UNIT (ICU)
JS Brauner, MB Blom, R Zancanaro, CE Trevisan, MM Rieder, SRR Vieira.

0339 · NONINVASIVE VENTILATION IN ONCOHEMATOLOGICAL PATIENTS WITH ACUTE RESPIRATORY FAILURE
A Carrillo, G González, A López, M Párraga, A Renedo, S Botias, JA Soler.

0379 · NON-INVASIVE VENTILATION: A TWO-YEAR EXPERIENCE IN ICU
A Chena, J Marengo, G Zakalik, R Fernandez.

0451 · EVALUATION OF NONINVASIVE MECHANICAL VENTILATION WITH POSITIVE PRESSURE IN THE MANAGEMENT OF PATIENTS WITH DIFFICULT WEANING FROM INVASIVE MECHANICAL VENTILATION
C Trevisan, S Vieira, M Blom, R Zancanaro, L Cassel, C Hahn, P Pinheiro.

0492 · USE OF BIPAP IN PATIENT WITH HIGH SPINAL CORD INJURIES
ET Martins, R Otero, C Koerich, S Santiago, TS Silva.

0578 · USE OF NON INVASIVE VENTILATION PROTOCOL IN THE ADULT INTENSIVE CARE UNIT OF THE HOSPITAL REGIONAL TRELEW
CA Ardiles, B Stegmuller, J Leyria, J Vecchio, P Insaurralde.

0672 · NONINVASIVE POSITIVE-PRESSURE VENTILATION IN PATIENTS WITH RESPIRATORY FAILURE AFTER EXTUBATION
V Tomiccio, J Molina, JM Montes, M Espinoza, J Graf, JE Keymer, P Antequera, J Mora, J Abarca, C Canals.

17:30 to 19:00 - Posters Session 6.8.b

Catalinas “Weaning of mechanical ventilation. Sedo-analgesia”
Respiratory medicine/Critical care nursing

Facilitators: Fernando Frutos Vivar (Spain)
 Guillermo Dominguez-Cherit (Mexico)
 Salvador Benito (Spain)
 Fernando Villarejo (Argentina)

0033 · PREDICTING SUCCESS IN WEANING FROM MECHANICAL VENTILATION: PRELIMINARY RESULTS FROM A MULTICENTRIC STUDY
SR Vieira, C Teixeira, LA Nasi, C Trevisan, RP Oliveira, A Savi, R Wickert, R Cremonesi, CE Hahn, ES Oliveira, FC Alves, F Callefe, JB Herve, KB Pinto, K Hartmann, L Cassel, LG Borges, MB Blom, P Pinheiro, R Zancanaro, S Brodt, TF Tonietto, J Horer, NB Silva.

0074 · EFFICACY, SAFETY AND COST EVALUATION OF REMIFENTANIL-MIDAZOLAM FOR ANALGESIA AND SEDATION OF CRITICALLY ILL PATIENTS UNDER MECHANICAL VENTILATION
EA Romero, NI Carrizo, JJ Capria, GW Bongiorno.

0135 · EVALUATION OF THE IMPACT OF EXTUBATION FAILURE AND REINTUBATION ON THE OUTCOME OF MECHANICALLY VENTILATED PATIENTS. A CASE-CONTROL STUDY
O Pereyra Gonzales, G Nahmias, P Gimenez, H Talner, M Berté, M D'Onofrio, S Sillitti, A Fernandez, J Parés, A Santa María, D Noval, S Ilutovich, A Bertacchini.

0187 · WEANING FROM PRESSURE SUPPORT VENTILATION ON NEUROSURGICAL TREATMENT PATIENTS
AP Souza, VC Alves, D Goncalves, PA Chiavone, JCE Veiga.

0190 · PROSPECTIVE STUDY OF 30 DEGREES AND 60 DEGREES POSITIONING DURING EXTUBATION PROCEDURES ON HISC MSP INPATIENTS
AP Souza, JV Oliveira, DE Melotti, LT Suzuki, LPM Silva.

0251 · INFLUENCE OF THE SEDO-ANALGESIA ON WEANING FAILURE
S Arias-Rivera, R Santos-Díaz, MJ Gallardo-Murillo, R Sánchez-Izquierdo, MM Sánchez-Sánchez, F Frutos-Vivar.

0252 · ADVANTAGES OF THE NEW BIS – XP MONITORING SYSTEM IN ICU
AI Alisher, AM Al Qattan, M Bahzad, AM Kefaya, AY Dubikatis, A Al Mulla.

0374 · NOREPINEPHRINE USE AT THE TIME OF EXTUBATION WAS NOT ASSOCIATED WITH WEANING FAILURE FROM MECHANICAL VENTILATION IN SEPTIC PATIENTS
TF Tonietto, C Teixeira, RV Cremonese, AS Machado, JH Barth, RP Oliveira, SFM Brodt, ES Oliveira, FAC Alves, P Balzano, JA Hoher, NB Silva.

0417 · CENTRAL VENOUS SATURATION AS A WEANING SUCCESS PREDICTOR
RV Cemonese, SRR Vieira, NB Silva, C Teixeira, A Savi, LA Nasi, RP Oliveira, ES Oliveira, TF Tonietto, R Wickert, JA Hoher, C Trevisan, SFM Brodt, LG Borges, K Hartmann, K Pinto, F Callefe, JE Barth, P Balzano, FAC Alves.

0457 · THE EFFECTS OF DEXMEDETOMIDINE ON RESPIRATORY MECHANICS, CONTROL OF BREATHING, AND LUNG HISTOLOGY IN RATS
PRM Rocco, FC Fernandes, HC Ferreira, VR Cagido, GMC Carvalho, WA Zin.

0546 · PREDICTIVE FACTORS FOR ENDOTRACHEAL REINTUBATION IN THE POSTOPERATIVE PERIOD OF CARDIAC SURGERY
SA Olival, RV Gomes, B Santos, J Ghisi, M Bezerra, W Homena, R Vegni, A Weksler, AF Assis, L Alves, ON Barbosa, JOR Brito, M Coimbra.

0572 · DURATION OF MECHANICAL VENTILATION AFTER CORONARY SURGERY. PROGNOSTIC IMPLICATION
A Piacenza, M Romero, D Cardozo, S Detournemine.

0582 · ANALGESIA-BASED SEDATION WITH REMIFENTANIL OR MORPHINE IN PATIENTS WITH SEVERE SEPSIS AND ALI/ARDS
R De La Fuente, M Cariaga, V Segovia, W Merino, MS Lienlaf, C Romero, R Cornejo, I Cortinez, L Castillo, G Hernandez, G Buggedo.

Minisymposia

Sunday August 28, 2005

- 10:45 to 12:15 - Minisymposium O1**
Martín Fierro “**Infections: Multi-resistant pathogens**”
Infection/Critical care nursing
- Chairpersons:** Miguel Ángel de la Cal (Spain)
 Rosa Reina (Argentina)
- Lecture:** **STRATEGIES FOR CONTROL OF MULTI-RESISTANT PATHOGENS**
- Speaker:** Miguel Ángel de la Cal (Spain)
- 0351** · EPIDEMIOLOGY OF CANDIDEMIA IN CRITICALLY ILL PATIENTS
R Reina, C Balasini, S Carino, G Saenz, G Martins, M Toro, G Ferrara, F Pereda, P Casteluccio, I Zoilo, E Estenssoro.
- 0392** · INFECTION IS A MAJOR RISK FACTOR TO PATIENTS ADMITTED TO ADULT ICU
NB Silva, RP Oliveira, C Teixeira, TF Tonietto, RV Cremonese, JH Barth, SFM Brodt, ES Oliveira, FAC Alves.
- 0468** · ACINETOBACTER MENINGITIS' HIGHLIGHTS
I Previgliano, R Reina, R Hansen, A Toro, S Carino, G Rey Kelly, E Estenssoro, S Fonio, M Figueroa, F Mensa, G Ferrara, F Pereda.
- 0500** · INFECTION IN ADULT INTENSIVE-CARE UNIT, A CASE CONTROL STUDY
C Castarataro, M Paz, E San Roman, D Czerwonko, J Grucci, C Salvatierra, M Villalobos.
- 0657** · IMPACT OF EMPIRICAL ANTIBIOTIC THERAPY AND MORTALITY IN ELDERLY WITH SEPTIC SHOCK
PH Godoy, GM Oliveira, MR Pantoja, RR Luiz, CE Figueiredo, L Solha, ML Brandão.
- 10:45 to 12:15 - Minisymposium O2**
Ombú “**Postoperative care of the cardiac surgical patient**”
Cardiovascular medicine/Critical care nursing/Perioperative care
- Chairpersons:** Renato G. G. Terzi (Brazil)
 Ricardo Levin (Argentina)
- Lecture:** **DIAGNOSIS OF THROMBOEMBOLISM: AN UPDATE**
- Speaker:** Renato G. G. Terzi (Brazil)
- 0104** · USE OF NT-PROBNP AS A PREDICTOR OF VENTILATION TIME, INOTROPIC USE, POST-OPERATIVE ATRIAL FIBRILLATION AND DURATION OF INTENSIVE CARE STAY IN THE POST-OPERATIVE CARDIAC SURGICAL PATIENT
PM Jogia, M Kalkoff, J Sleigh, A Bertinelli, M Le Pine, AM Richards, G Devlin.
- 0295** · $\Delta\text{PCO}_2/\text{C}(\text{A-V})\text{O}_2$ RATIO TO PREDICT ANAEROBIC METABOLISM IN PATIENTS WITH HYPERLACTATEMIA AFTER COMPLICATED CORONARY ARTERY BYPASS GRAFTING SURGERY
M Balciunas, R Skutaite, V Jurkuvenas, A Baublys.
- 0464** · SURGICAL TREATMENT OF CHRONIC THROMBOEMBOLIC PULMONARY HYPERTENSION EXPERIENCE AT ONE SINGLE INSTITUTION
MP Varela Otero, M Peradejordi, D Intile, A Bertolotti, C Gomez, J Abud, P Comignani, R Favaloro.
- 0649** · IMPROVEMENT OF SOFA'S PREDICTIVE POWER FOR DEATH WHEN ASSOCIATED WITH CENTRAL VENOUS OXYGEN SATURATION INTERMITTENTLY OBTAINED AT THE FIRST 24 HOURS OF CARDIAC SURGERY POSTOPERATORY
RV Gomes, PM Nogueira, MA Fernandes, A Rouge, J Sabino, R Vegni, DJ Filho, F Nogueira, LA Campos, HF Dohmann, JR Rocco.
- 0658** · CAN CENTRAL VENOUS OXYGEN SATURATION INTERMITTENTLY MEASURED WITHIN THE FIRST 24 POSTOPERATIVE HOURS OF CARDIAC SURGERY PREDICT MULTISYSTEM ORGAN FAILURE?
PM Nogueira, RV Gomes, MA Fernandes, A Rouge, J Sabino, C Karam, B Barros, FG Aranha, LA Campos, HF Dohmann, JR Rocco.
- 14:00 to 15:30 - Minisymposium O3**
Martín Fierro “**ARDS. Recruitment maneuvers**”
Respiratory medicine
- Chairpersons:** Carmen Valente Barbas (Brazil)
 Gustavo Paredes (Ecuador)
- Lecture:** **P/V RELATIONSHIP: AN OLD FRIEND REVISED**
- Speaker:** Marco Ranieri (Italy)
- 0362** · CORRESPONDENCE BETWEEN CT MORPHOLOGICAL ANALYSIS AND ELASTIC MECHANICAL PROPERTIES IN NORMAL AND ACUTE LUNG INJURY SWINE MODELS
A Roncally, F Jandre, AV Pino, R Rodrigues, F Bozza, J Salluh, FA Lima, F Ascoli, A Giannella-Neto.
- 0385** · ROLE OF DEAD SPACE AS MONITOR OF PEEP TITRATION DURING A RECRUITMENT MANEUVER IN PATIENTS WITH ARDS
E Turchetto, G Tusman, N Fuentes, J Lobo, F Suárez-Sipmann, S Böhm.
- 0391** · DYNAMIC AIRWAY EXPIRATORY RESISTANCE IS USEFUL FOR DETECTING THE OPEN-LUNG PEEP AFTER A RECRUITMENT MANEUVER
F Suarez-Sipmann, SH Böhm, G Tusman, H Reissmann, O Tham, T Pech, E Turchetto, G Hedenstierna.
- 0393** · THE RATIO ALVEOLAR DEAD SPACE / ALVEOLAR TIDAL VOLUME IS A GOOD INDICATOR OF LUNG RECRUITMENT
G Tusman, F Suarez-Sipmann, SH Böhm, O Tham, T Pech, E Turchetto, G Hedenstierna, H Reissmann.
- 0630** · THE SYSTEMIC INFLAMMATORY IMPACT OF A “MAXIMUM-RECRUITMENT” STRATEGY IN ALI/ARDS PATIENTS
J Pilau, V Okamoto, M Park, AS Hirota, MBP Amato, CRR Carvalho.

Sunday August 28, 2005

14:00 to 15:30 - Minisymposium O4**Ombú** “Pediatrics: septic and metabolic problems”*Pediatrics/Renal failure, electrolyte and acid-based disorders/Shock and sepsis***Chairpersons:** Edwin van der Voort (Netherlands)
Corsino Rey Galán (Spain)**Lecture:** MENINGOCOCCAL DISEASE**Speaker:** Edwin van der Voort (Netherlands)**0092** · BACK TO BASICS: A MULTIDISCIPLINARY APPROACH TO THE SIMULTANEOUS REDUCTION OF MULTIPLE NOSOCOMIAL INFECTION RATES IN A PEDIATRIC INTENSIVE CARE UNIT
*N Khan, L McDonald, C McGlone, MW Hall.***0197** · ARE ALL METABOLIC ACIDOSIS IN SHOCKED CHILDREN PRESENTING TO THE PEDIATRIC INTENSIVE CARE UNIT EQUAL? DOES THE TYPE AND / OR MAGNITUDE MATTER?
*Z Waggie, M Hatherill, L Reynolds, A Argent.***0262** · NON-ENTEROPHATIC HEMOLYTIC UREMIC SYNDROME: COMPARISON WITH TYPICAL HEMOLYTIC UREMIC SYNDROME
*P Zambrano, M Drago, D Maldonado, R Paiva, A Otárola, P Romero, V Gallardo, J Diaz, R Reyes, S Gonzalez, M Nalegach, P Canales, M Rocco, T Orellana, R Villena, R Rivera, B Concha.***0303** · ADRENAL STATUS IN CHILDREN WITH SEPTIC SHOCK
*R Lodha, M Sarthi, S Vivekanandhan, NK Arora.***0486** · HYPERNATRAEMIC GASTROENTERITIS IN CRITICALLY ILL CHILDREN
*G Robertson, M Carrihill, M Hatherill, Z Waggie, L Reynolds, A Argent.***16:00 to 17:30 - Minisymposium O5****Martín Fierro** “Traumatic brain injury”*Neurocritical care/Trauma, emergency***Chairpersons:** Randall Chesnut (United States)
Ignacio J. Previgliano (Argentina)**Lecture:** MANAGEMENT OF SEDATION AND NEUROMUSCULAR BLOCKAGE IN THE PATIENT WITH TBI**Speaker:** Randall Chesnut (United States)**0062** · COMPARISON BETWEEN STATIC AND DYNAMIC BEHAVIOR OF CEREBRAL AUTOREGULATION IN SEVERE HEAD INJURY PATIENTS. A TRANSCRANIAL DOPPLER STUDY
*C Puppo, L López, E Caragna, A Biestro.***0268** · MODERATELY HEAD INJURED PATIENTS: A PROSPECTIVE MULTICENTER STUDY OF 315 PATIENTS
*C Compagnone, F Servadei, D D'Avella.***0476** · POSITIVE END EXPIRATORY PRESSURE AND INVERSE RATIO VENTILATION IN PATIENTS WITH TRAUMATIC BRAIN INJURY
*SN Nemer, CSV Barbas, S Machado, M Cabral, R Gago, L Azeredo, J Goulart, C Coimbra, I Seródio, L Tabajaras, E Farias, C Cadilhe, L Paraíso, PCP Souza.***0483** · INDOMETHACIN IN SEVERE HEAD INJURY. DOES IT MODIFY CEREBRAL AUTOREGULATION?
*C Puppo, L López, G Fariña, E Caragna, L Moraes, A Iturralde, A Biestro.***0583** · GLASGOW 7 SURVEILLANCE PROGRAM: EPIDEMIOLOGY AND OUTCOME IN ARGENTINEAN INTENSIVE CARE UNITS
*JL Bustos, IJ Previgliano, C Soratti.***16:00 to 17:30 - Minisymposium O6****Ombú** “Outcome research”*ICU management, quality of care, scores, IT/Critical care nursing/Research and education***Chairpersons:** Malcolm Fisher (Australia)
Carlos A. Castarataro (Argentina)**Lecture:** GERIATRIC PATIENTS IN THE ICU
Speaker: Malcolm Fisher (Australia)**0289** · CLASSIFICATION AND CODIFICATION OF DIAGNOSES IN CRITICAL CARE MEDICINE
*A Cadirola.***0571** · MANAGING THE CHALLENGE TO DELIVER EFFECTIVE AND APPROPRIATE INTENSIVE CARE - THE COMMISSIONING OF A NEW INTENSIVE CARE SERVICE AND THE DEVELOPMENT OF AN INTEGRATED “HOTFLOOR” MODEL
*BJ Abbenbroek.***0673** · INCIDENCE AND EVOLUTION OF AGING PATIENTS IN A INTENSIVE CARE UNIT
*AG Albuquerque, AL Gouvea, OC Neto, H Falcão.***0674** · SIMPLE MODEL FOR PREDICTION OF MORTALITY IN ELDERLY PATIENTS WITH SEPTIC SHOCK
*PH Godoy, GM Oliveira, MR Pantoja, RR Luiz, R Machado, J Regalla.***0683** · OUTCOME PREDICTION MODELS ON ADMISSION IN A CARDIAC INTENSIVE CARE UNIT: DO THEY PREDICT INDIVIDUAL OUTCOME?
CB Terzi, D Dragosavac, SG Lage, RGG Terzi.

Monday August 29, 2005

10:15 to 11:45 - Retiro C Minisymposium 07
“Nursing: research and education”
Critical care nursing/Research and education

Chairpersons: Paul Fulbrook (Australia)
 Del Erdmann (United States)
 Laura M. Alberto (Argentina)

Lecture: **NURSING: RESERCH AND EDUCATION**
Speaker: Lilia L. Ortega Cruz (Mexico)

0095 · THE VALUE OF THE “RESEARCH COORDINATOR POSITION” IN AUSTRALIAN AND NEW ZEALAND INTENSIVE CARE UNITS
BL Roberts, CM Rickard, JW Foote, MR Mcgrail.

0096 · SATISFACTION WITH AND IMPORTANCE OF JOB VARIABLES FOR RESEARCH COORDINATORS IN AUSTRALIAN AND NEW ZEALAND INTENSIVE CARE UNITS
BL Roberts, CM Rickard, JW Foote, MR Mcgrail.

0115 · E-LEARNING (ELECTRONIC-LEARNING) AS A METHOD IN THE TRAINING OF NURSING STAFF AT AN ICU
L Kjaer.

0193 · THE EFFECTIVENESS OF AN INTERVENTION TO INCREASE PUBLICATION RATES BY HEALTH PROFESSIONAL ACADEMICS: RESULTS OF PROSPECTIVE COHORT STUDY
CM Rickard, CR Jones, MR Mcgrail, A Robinson, M Burley.

0445 · DEVELOPMENT AND EVALUATION OF A WEB-ENABLED COMMUNICATION PLATFORM FOR A NATIONAL INTENSIVE CARE NURSE SKILL-MATCHING TO PATIENT ACUITY STUDY
A Rischbieth.

10:45 to 12:15 - Martin Fierro Minisymposium 08
“Sepsis: epidemiology and treatment”
Shock and sepsis

Chairpersons: Can Ince (Netherlands)
 Enzo Saez Herrera (Chile)

Lecture: **WHAT EVERY INTENSIVIST SHOULD KNOW ABOUT THE MICROCIRCULATION**

Speaker: Can Ince (Netherlands)

0100 · BENEFICIAL EFFECTS OF DOBUTAMINE ON PULMONARY OXYGENATION IN SHEEP ENDOTOXEMIA
G Murias, A Dubin, HS Canales, JP Sottile, MO Pozo, VS Kanoor, Edu, M Barán, E Estenssoro.

0180 · THE CHRONICALLY CRITICALLY ILL PATIENTS: A UNIQUE CLINICAL PROFILE
E Estenssoro, F Gonzalez, R Reina, G Saenz, H Canales, M Aprea, G Ferrara, M Toro, F Pereda.

0566 · FIRST CHILEAN MULTICENTRIC STUDY ABOUT THE PREVALENCE OF SEVERE SEPSIS IN THE INTENSIVE CARE UNIT (ICU)
A Dougnac, M Mercado, M Cariaga, R Cornejo, G Hernandez, M Andresen, G Buggedo, L Castillo.

0579 · OUTCOME OF SEPTIC SHOCK PATIENTS WITH RELATIVE ADRENAL INSUFFICIENCY
G Friedman, R Silva, M Becker, L Gehrke.

0685 · RESPIRATORY PHYSIOLOGIC VARIABLES IN EXPERIMENTAL PULMONARY EMBOLISM AND EXPERIMENTAL HEMORRHAGIC SHOCK
MM Moreira, RGG Terzi, K Metzke, ELA Ferreira, AC Moraes, WA Silva.

10:45 to 12:15 - Ombú Minisymposium 09
“Hemodynamics: physiological basis and monitoring”
Cardiovascular medicine/Shock and sepsis

Chairpersons: Guillermo Gutierrez (United States)
 Hernán Artucio (Uruguay)

Lecture: **VENOUS SATURATION**
Speaker: Guillermo Gutierrez (United States)

0099 · THE BETA₂ ADRENERGIC RECEPTOR PDZ BINDING MOTIF: ASSESSMENT OF ITS ROLE IN CARDIAC PROTECTION
J Wong, C Chen, H Hwang, A Romer, M Walsh, M Feliu-Mojer, R Agrawal, AJ Patterson.

0204 · THE “DIASTOLIC” FRANK-STARLING MECHANISM IS ATTENUATED IN HUMANS WITH IMPAIRED DIASTOLIC FUNCTION
K Yastrebov, C Royse, A Royse, K Connelly.

0488 · MACROPHAGE MIGRATION INHIBITORY FACTOR (MIF) AS A DIAGNOSTIC TOOL FOR ACUTE CORONARY SYNDROME (ACS)
HTF Mendonça-Filho, KC Pereira, GS Gomes, M Viegas, A Potch, ET Mesquita, BR Tura, HFR Dohmann.

0567 · CARDIAC OUTPUT MEASUREMENT - AN INCOMPLETE STORY LIDCOPLUS® DERIVED OXYGEN DELIVERY
M Jonas, J Nixon, D Sparkes, J Fennel.

0684 · END-TIDAL CARBON DIOXIDE (PETCO₂) AS A NONINVASIVE PERFUSION INDICATOR IN HEMORRHAGIC SHOCK
ELA Ferreira, RGG Terzi, MM Moreira, W Silva, AC Moraes.

14:00 to 15:30 - Retiro C Minisymposium 10
“Nursing: process of care”
Critical care nursing

Chairpersons: Wendy Chaboyer (Australia)
 Gerardo Jasso (Mexico)
 Laura M. Alberto (Argentina)

Lecture: **NURSING: PROCESS OF CARE**
Speaker: Shelley Schmollgruber (South Africa)

0030 · EVALUATING THE IMPACT OF 12 HOUR SHIFTS IN CRITICAL CARE
A Richardson, C Turnock, A Finley, L Harris, S Carson.

0064 · HONG KONG CHINESE PATIENTS’ DECISION-MAKING PROCESS IN SEEKING EARLY TREATMENT FOR CHEST PAIN
R Kaur, V Lopez, DR Thompson.

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0073 - BEDSIDE CHECKLIST FOR NURSES, QUALITY ASSURANCE IN MANAGEMENT OF CRITICALLY ILL PATIENTS

K Wong, M O'Hehir, A Driver.

0078 - A PROSPECTIVE EVALUATION OF NURSE-DIRECTED PROTOCOLIZED WEANING FROM MECHANICAL VENTILATION ON PATIENT OUTCOMES IN THE UNITED KINGDOM

B Blackwood, J Wilson-Barnett, GG Lavery.

0485 - CONCEPTS AND ATTRIBUTES USED BY CRITICAL CARE NURSES TO MAKE SEDATION RELATED DECISIONS

LM Aitken, A Marshall, R Elliott, V Fox, S Mckinley.

14:00 to 15:30 - Minisymposium 11

Martín Fierro "Ventilator associated pneumonia"

Infection/Respiratory medicine

Chairpersons: Carlos M. Luna (Argentina)

Fernando G. Rios (Argentina)

Lecture: EARLY AND LATE VAP

Speaker: Carlos M. Luna (Argentina)

0348 - ACCURACY OF THE GRAM STAIN EXAMINATION OF RESPIRATORY TRACT SAMPLES IN THE PREDICTION OF VENTILATOR ASSOCIATED PNEUMONIA (VAP) AND ITS UTILITY IN THE SELECTION OF THE EMPIRIC ANTIBIOTICS

R Valentini, D Yagupsky, I Bonelli, S Attie, L Mazzuocollo, G Jannello.

0448 - EFFECT OF VENTILATOR-ASSOCIATED PNEUMONIA ON MORTALITY AND MORBIDITY. A MULTICENTER PROSPECTIVE COHORT STUDY

P Desmery, R Valentini, S Giannasi, E Turchetto, D Violi, D Ceraso, P Pratesi, M Deheza, A Lupo, M Emmerich, O Elefante, J Tévez, C Santos, E Capparelli, G Agüero, A Moggi, C Bevilaqua, H Ortiz, J Tuffaro, G Toledo, G Filippa, A Díez, S Gándara, H Jacobo, V Salvloff, J Santopinto, E Manrique, C Cohen, H Bagnulo, R Vandersande, R Negro, A Mazzola, M Barrangú, P Pardo, J Neira, M Fumele, J Alvarez, J Bonelli, P Jimenez, D Intile.

0458 - IMPLEMENTATION OF AN EVIDENCE-BASED GUIDELINE FOR GENERAL CARE AND PREVENTION OF VENTILATOR-ASSOCIATED PNEUMONIA ON THE OUTCOME OF PATIENTS DURING MECHANICAL VENTILATION: A MULTICENTER PRE-POST STUDY

P Desmery, R Valentini, S Giannasi, E Turchetto, D Violi, D Ceraso, P Pratesi, J Alvarez, M Deheza, A Lupo, M Emmerich, O Elefante, J Tévez, C Santos, E Capparelli, G Agüero, A Moggi, G Toledo, A Díez, S Gándara, H Jacobo, V Salvloff, J Santopinto, V Torres, H Bagnulo, R Vandersande, A Mazzola, M Barrangú, M Fumele, J Neira, P Pardo, A Gómez, E Estenssoro, D Intile.

0497 - MICROSCOPIC EXAMINATION BY GRAM STAIN VERSUS QUANTITATIVE CULTURE OF ENDOTRACHEAL ASPIRATES IN MECHANICALLY VENTILATED PATIENTS

JA Victorino, C Dias, E Ribas, S Superti, F Zettler, F Hoff, L Berquó, G Narvaez.

0512 - WHICH IS THE OPTIMAL DURATION OF ANTIBIOTIC TREATMENT FOR VENTILATOR ASSOCIATED PNEUMONIA? PROSPECTIVE, RANDOMIZED STUDY

J Pontet, J Medina, C Formento, M Berro, A Curbelo, S Bentancourt, J Gerez, H Correa.

14:00 to 15:30 - Minisymposium 12

Ombú "Quality of care"

ICU management, quality of care, scores, IT/Critical care nursing/Research and education/Pediatrics

Chairpersons: Zulma Ortiz (Argentina)
Gabriel d'Empaire (Venezuela)

Lecture: QUALITY OF CARE BASED ON BIOETHICS PRINCIPLES

Speaker: Gabriel d'Empaire (Venezuela)

0210 - SATI-Q PROJECT: BENCHMARKING QUALITY IN ARGENTINE ICUS

S.A.T.I. Net.

0349 - QUATI SYSTEM - CLINICAL AND EPIDEMIOLOGIC PROFILES OF ICU CARE IN BRAZIL

MG Rocha, D Schout, AL Santoro, SC Oliveira, M Knibel.

0369 - MORTALITY IN WORKING DAYS VS. WEEKEND DAYS: THE ARGENTINE EXPERIENCE

C Castarataro, A Gorenstein, M Hepner, A Galesio, AL Fernandez.

0375 - HOSPITAL DE CLÍNICAS CARACAS ATTENTION'S QUALITY EVALUATION IN THE INTENSIVE CARE UNIT

S Pereira, M Delgado, G d'Empaire.

0384 - MORTALITY AND LIFE CONDITION BEFORE AND AFTER HOSPITALIZATION IN INTENSIVE CARE UNIT IN PATIENTS OLDER THAN 75 YEARS

JC Pal, S Salva, D Urbina, G d'Empaire, MA d'Empaire.

16:00 to 17:30 - Minisymposium 13

Martín Fierro "Disaster management. Resuscitation"

Trauma, emergency/Cardiovascular medicine

Chairpersons: David B. Hoyt (United States)
Hugo Gomez (Paraguay)

Lecture: MISSED INJURIES

Speaker: David B. Hoyt (United States)

0055 - DOES THE VASOPRESSIN IMPROVE OUTCOME IN OUT-OF-HOSPITAL CARDIOPULMONARY RESUSCITATION OF VENTRICULAR FIBRILLATION AND PULSELESS VENTRICULAR TACHYCARDIA?

S Grmec, S Mally.

0127 - MASSIVE HOSPITAL ADMISSION OF A NIGHTCLUB FIRE DISASTER'S VICTIMS TO ARGENTINE HOSPITAL IN BUENOS AIRES

G Ramos, G Flageat, G Queiroz, L Aguirre, G Nacif, R Fiorentino, G Tsaritskian, A Arata, J Shilton.

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0152 · INCREASING SURVIVAL RATES DESPITE A REDUCTION IN VENTRICULAR FIBRILLATION IN OUT-OF-HOSPITAL CARDIAC ARREST IN NORTH-EAST ITALY
T Pellis, F Kette, E Franceschino, L Magagnin, L Burei, D Lovisa.

0626 · MASS FUME POISONING VICTIMS: LESSONS FROM THE TRAGEDY
L Capdeville, I Previgliano, D Ceraso, J Neira, V Wolanow, G Fernández, MC Montarulli, J Rubianes, S Ilutovich, S Blejman, M Deheza, JP Rossini, B Hunter, LM Cantalluppi, G Pina, L Menga, E Malvino.

0659 · THE ROLE OF INITIAL CARBOXYHEMOGLOBIN LEVELS IN FUME POISONING
I Previgliano, D Ceraso, E San Román, J Neira, G Fernandez, P Rossini, D Prieto, S De Francesca, P Matzkin, P Pardo, A Marino, M Rivet, G Sheean, F Villarejo, R Castagna, V Lacaze, C Grasso Fontan, C Ubaldini, C Viveros, M Rolando, V Wolanow, E Berreta.

Tuesday August 30, 2005

10:15 to 11:45 - Retiro C - Minisymposium 14
"Neurocritical care"
Neurocritical care

Chairpersons: Andrew Maas (Netherlands)
Fernando Goldenberg (United States)

Lecture: NEUROPROTECTION IN TRAUMATIC BRAIN INJURY

Speaker: *Andrew Maas (Netherlands)*

0058 · SYNDROMES RELATED TO SODIUM AND ARGININE VASOPRESSIN ALTERATIONS IN POST-OPERATIVE NEUROSURGERY
D Dragosavac, DAP Cardoso, S Araújo, ALE Falcão, RRG Terzi, M Castro, GF Marcondes, GT Melo, RARA Oliveira, AE Cintra.

0093 · PERSISTENT ELECTROGRAPHIC ICTAL PATTERNS AFTER CONTROL OF CLINICAL STATUS EPILEPTICUS IN PEDIATRIC CRITICALLY ILL PATIENTS
EG Moreno, A Mazzola, F Olazarri, S Corral, P Neira, A Bordon.

0258 · HYPERGLYCEMIA IN NON-DIABETIC PATIENTS (NBDT) WITH SPONTANEOUS INTRACEREBRAL HEMORRHAGE (SICH) MORTALITY PREDICTOR OR METABOLIC RESPONSE TO STRESS?
G Piñero, D Godoy, S Swampa, F Ciccioli.

0260 · IMPLEMENTATION OF HYPOTHERMIA AFTER CARDIAC ARREST
A Roncarati, F Gamba, T Pellis, E Mione, DC Tommasello, R Bigai, WP Mercante.

0281 · A COMPARISON OF TWO ALVEOLAR RECRUITMENT MANEUVER APPROACHES IN PATIENTS WITH ACUTE RESPIRATORY DISTRESS SYNDROME AND HEMORRHAGIC STROKE WITH GLASGOW COMA SCALE < 8
SN Nemer, L Paraíso, L Ferreira, R Maia, M Andrade, L Caldeira, V Godinho, R Ávila, S Machado, PCP Souza, CSV Barbas.

10:45 to 12:15 - Martín Fierro - Minisymposium 15
"Sepsis: experimental and clinical treatment"
Shock and sepsis/Infection

Chairpersons: Daniel De Backer (Belgium)
Gilberto Friedman (Brazil)

Lecture: USE OF VASOPRESSIN IN SEPTIC SHOCK
Speaker: Daniel De Backer (Belgium)

0046 · ERYTHROPOIETIN IMPROVES SKELETAL MICROCIRCULATION AND TISSUE OXYGENATION IN SEPTIC MICE
R Kao, P Yu, J Rose, X Anargyros, C Martin.

0071 · HIGH VOLUME HEMOFILTRATION IN THE MANAGEMENT OF SEVERE HYPERDYNAMIC SEPTIC SHOCK
G Hernandez, R Cornejo, P Downey, R Castro, C Romero, J Vega, L Castillo, M Andresen, A Dougnac, G Bugedo.

0118 · HEMODYNAMIC AND CLINICAL OUTCOME WITH CRYSTALLOID VS PENTASTARCH RESUSCITATION IN HIGH RISK SURGICAL PATIENTS
T Shyamsunder, HG Kulkarni, MG Beez, WC Shoemaker.

0419 · TREATMENT WITH N-ACETYLCYSTEINE PLUS DEFEROXAMINE PROTECTS HIPPOCAMPUS AGAINST OXIDATIVE STRESS AND PREVENT SHORT- AND LONG-TERM COGNITIVE IMPAIRMENT IN SEPSIS SURVIVORS RATS
MR Martins, A Reinke, C Ritter, RA Machado, S Valvassori, T Barichello, J Quevedo, F Dal-Pizzol.

0665 · NOREPINEPHRINE INFLUENCE ON MORTALITY IN ELDERLY WITH SEPTIC SHOCK
PH Godoy, GM Oliveira, MR Pantoja, RR Luiz, R Machado, A Farias, W Teixeira.

10:45 to 12:15 - Ombú - Minisymposium 16
"Nutrition and metabolism"
Nutrition and metabolism/Renal failure, electrolyte and acid-based disorders

Chairpersons: Mario I. Perman (Argentina)
José Besso (Venezuela)

Lecture: COMBINED ENTERAL AND PARENTERAL NUTRITION

Speaker: Richard Griffiths (United Kingdom)

0140 · COMPARISON OF TWO APPROACHES TO METABOLIC ACID-BASE DISTURBANCES
A Dubin, M Menises, FD Masevicius, MC Moseinco, D Olmos Kutscherauer, E Ventrice, E Laffaire, E Estenssoro.

0172 · NURSE-DRIVEN INSULIN TITRATION IS EQUALLY EFFICACIOUS AND SAFE IN A CARDIOTHORACIC ICU
PR Roberts, EH Kincaid, ND Kon, MK Williamson, MG Reichert, DL Bowton.

Tuesday August 30, 2005

0556 · ENTERAL NUTRITION IN CRITICALLY ILL CHILDREN: ARE THE PRESCRIPTION AND THE NUTRIENT DELIVERY ACCORDING TO THEIR CALORIC REQUIREMENTS?
WB Carvalho, SBO Iglesias, HP Leite.

0576 · CONTINUOUS GLUCOSE MONITORING SYSTEM IN CRITICALLY ILL PATIENTS IN A MEDICAL/SURGICAL INTENSIVE CARE UNIT
P Martins, H Cristofolo, A Antonio, R Conishi, G Amarante, P Ribeiro, G Schettino.

0633 · MULTIDIMENSIONAL STRUCTURE FOR CLASSIFICATION OF ACUTE RENAL FAILURE - VALIDATION STUDY
FC Barcellos, DSL Nunes, RH Gomes, DB Rodrigues, LM Rota, G Jaeger, TP Brunet, T Tubone, CGB Silva, M Bohlke.

14:00 to 15:30 – Minisymposium 17
Retiro C “Non-invasive ventilation”
Respiratory medicine

Chairpersons: Gumersindo González Díaz (Spain)
Luis Soto Román (Chile)

Lecture: NIV: NON USUAL INDICATIONS
Speaker: Gumersindo González Díaz (Spain)

0201 · CONTINUOUS POSITIVE AIRWAY PRESSURE DECREASES PULMONARY HYPERINFLATION IN COPD PATIENTS
CRR Carvalho, SMTP Soares, RARA Oliveira, SM Rezende, D Dragosavac.

0325 · ENDOTRACHEAL INTUBATION DELAY IN PATIENTS WITH NONINVASIVE VENTILATION
G Gonzalez, A Carrillo, A López, MD Rodriguez, A Renedo, M Párraga, JA Soler.

0332 · REDUCTION OF NOSOCOMIAL INFECTION WITH NONINVASIVE VENTILATION
G González, A Carrillo, A López, A Renedo, M Párraga, S Botias, A Esquinas.

0555 · LUNG EPITHELIAL PERMEABILITY WITH CONTINUOUS POSITIVE AIRWAY PRESSURE (CPAP) IN SEATED AND SUPINE POSITION
DN Paiva, RPL Mattos, P Masiero, E Fernandes, B Spiro, SS Menna Barreto.

0616 · THE USE OF NPPV DURING WEANING DECREASES ICU MORTALITY AND TOTAL LENGTH OF VENTILATORY SUPPORT
P Nery, L Pastore, A Maida, L Dalfiori Jr, G Schettino.

14:00 to 15:30 – Minisymposium 18
Martín Fierro “Sepsis: physiology and monitoring”
Shock and sepsis/Cardiovascular medicine

Chairpersons: Bernardo C. Maskin (Argentina)
Jun Takesawa (Japan)

Lecture: PROCALCITONIN: A NEW MARKER OF INFECTION
Speaker: Bernardo C. Maskin (Argentina)

0052 · EVALUATING ANAEROBIC METABOLISM USING THE VENO-ARTERIAL CO₂ DIFFERENCE AND THE ARTERO-VEINUS O₂ CONTENT DIFFERENCE RATIO IN CRITICALLY ILL PATIENTS
FB Carvalho, R Rimachi, CEA Orellana-Jimenez, D De Backer, JL Vincent.

0072 · INTRA-ABDOMINAL HYPERTENSION IN SEPTIC SHOCK PATIENTS
G Hernandez, T Regueira, R Cornejo, R Rebolledo, M Aguirre, M Cariaga, C Romero, L Castillo, G Bugedo.

0090 · TONOMETRIC URINARY BLADDER-ARTERIAL PCO₂ DIFFERENCE DURING ISCHEMIA AND REPERFUSION: COMPARISON WITH OTHER PCO₂ GRADIENTS
A Dubin, MO Pozo, VS Kanoore Edul, G Murias, HS Canales, M Barán, B Maskin, G Ferrara, M Laporte, E Estenssoro.

0103 · RELATIONSHIP BETWEEN CENTRAL VEIN OXYGEN SATURATION AND URINARY-ARTERIAL PCO₂ IN CRITICALLY ILL PATIENTS
A Dubin, S Baquero, D Olmos Kutscherauer, E Ventrice, M Cortazar, M Engel, M Meneses, M Moseinco, E Estenssoro.

0119 · RETROSPECTIVE COMPARISON OF NONINVASIVE HEMODYNAMIC PARAMETERS BETWEEN SURVIVORS AND NON-SURVIVORS IN HIGH-RISK SURGICAL PATIENTS
T Shyamsunder, HG Kulkarni, MG Beez, WC Shoemaker.

16:00 to 17:30 – Minisymposium 19
Martín Fierro “Clinical use of scores: focus on liver failure”
ICU management, quality of care, scores, IT/Liver failure and transplantation

Chairpersons: Graciela B. Cueto (Argentina)
César A. Pérez (Argentina)

Lecture: SCORES AND PROGNOSIS IN LIVER FAILURE
Speaker: Andres T. Blei (United States)

0069 · PERFORMANCE OF PRISM AND PIM₂ IN A SINGLE PEDIATRIC INTENSIVE CARE UNIT FROM ARGENTINA
PG Eulmesekian, AC Perez, PG Mincez, T Fiori, H Ferrero, V Sanchez.

0148 · EVALUATION OF THE OUTCOME OF ELDERLY CRITICALLY ILL PATIENTS WITH CANCER
M Soares, JIF Salluh, CG Ferreira, RR Luiz, JR Rocco, N Spector.

0269 · PRETRANSPLANT MELD SCORE COMPARED TO SIX SEVERITY-OF-ILLNESS SCORES AS PREDICTOR OF INTRAHOSPITAL OUTCOME AFTER LIVER TRANSPLANTATION
CHP Ferrari, S Basto, LJU Cunha, RNF Vieira, JR Rocco.

0573 · MELD SCORE AT ICU ADMISSION IS THE BEST PREDICTOR OF OUTCOME IN ADULTS WITH FULMINANT HEPATIC FAILURE
P Klin, S Yantorno, V Descalzi, S Perez Lloret, L Podesta, F Villamil, F Klein.

0594 · VALIDATION OF THE PEDIATRIC LOGISTIC ORGAN DYSFUNCTION (PELOD) SCORE IN BRAZIL
PC Garcia, A Sfoggia, JP Piva, F Bruno, PR Einloft, DJ Kipper, RG Branco, JC Santana, R Jungblut, ME Silva.

Wednesday August 31, 2005

- 08:30 to 10:00 - Minisymposium 20**
Retiro C **“Difficult weaning”**
Respiratory medicine
- Chairpersons:** Carlos Carvalho (Brazil)
 Eduardo L. De Vito (Argentina)
- Lecture:** **WEANING IN THE NEUROLOGIC PATIENT**
Speaker: Jordi Mancebo (Spain)
- 0248** · THE EFFECT OF A NURSE INITIATED SEDATION PROTOCOL ON SEDATION GOAL SCORE COMPLIANCE: AN INTERVENTION STUDY
K Feeley, A Gardner, I Mitchell, IA Leditschke.
- 0359** · RANDOMIZED CLINICAL TRIAL OF SEDATION GUIDED BY PROTOCOL VERSUS CLINICAL CRITERIA IN MECHANICALLY VENTILATED CRITICALLY ILL PATIENTS
A Lanas, E Tobar, S Pino, P Aspeé, S Rivas, R Asenjo, D Prat, J Castro.
- 0370** · A COMPARATIVE STUDY OF INDEXES PREDICTING THE WEANING OUTCOME
SN Nemer, CSV Barbas, JB Caldeira, LM Azeredo, ST Machado, R Gago, T Clipes, PR Filho, LK Ferreira, L Tabajaras, PCP Souza.
- 0382** · A COMPARATIVE STUDY OF INSPIRATORY MUSCLE STRENGTH, NEUROMUSCULAR DRIVE TO BREATH AND ITS RATIO IN WEANING OUTCOME
SN Nemer, CSV Barbas, J Caldeira, L Azeredo, T Clipes, R Gago, M Andrade, PR Filho, R Avila, C Coimbra, PCP Souza.
- 0456** · SHOULD NATRIURETIC PEPTIDE B-TYPE (BNP) BE USED TO PREDICT WEANING FAILURE IN MECHANICALLY VENTILATED PATIENTS?
S Callas, P Nery, L Pastore, S Sampaio, R Kairalla, G Schettino.
- 08:45 to 10:15 - Minisymposium 21**
Martin Fierro **“Inflammatory mediators in sepsis”**
Shock and sepsis
- Chairpersons:** Hiroyuki Hirasawa (Japan)
 Javier F. Hurtado (Uruguay)
- Lecture:** **EFFICACY OF CYTOKINE MODULATION WITH CONTINUOUS HEMODYAFILTRATION IN CRITICAL CARE**
Speaker: Hiroyuki Hirasawa (Japan)
- 0094** · COMPARISON BETWEEN HLA-DR SURFACE AND INTRACYTOPLASMATIC CONCENTRATION IN CIRCULATING BLOOD MONOCYTES IN SEVERE SEPTIC PATIENTS
B Maskin, L Solari, D Gammella, N Cacace.
- 0234** · ROLE OF PEROXINITRITE IN SEPSIS-INDUCED MICRO AND MACROVASCULAR DYSFUNCTION IN RATS
N Nin, JA Lorente, S Vallejo, M El Assar, M De Paula, A Sanchez-Ferrer, A Esteban.
- 0376** · SERUM FROM PATIENTS WITH SEPTIC SHOCK MODULATES THE EXPRESSION OF ISOFORMS ALPHA AND BETA OF THE HUMAN GLUCOCORTICOID RECEPTOR
J Guerrero, K Salas, IA Goecke.
- 0422** · A NEW INFLAMMATORY PATHWAY RELEVANT TO THE DEVELOPMENT OF SEPSIS: BOMBESIN/GASTRIN-RELEASING PEPTIDE ANTAGONIST AS A THERAPEUTIC TARGET IN SEPSIS TREATMENT
F Dal-Pizzol, A Reinke, MR Martins, C Ritter, LP Di Leone, R Roesler, G Schwartzmann.
- 0604** · TEMPORARY PROFILE OF OXIDATION / ANTIOXIDATION IN SEPTIC SHOCK PATIENTS
T Regueira, M Andresen, D Perez, P Strobel, G Marshall, A Dougnac, F Leighton.
- 10:15 to 11:45 - Minisymposium 22**
Retiro C **“Ventilator-induced lung injury”**
Respiratory medicine
- Chairpersons:** Arthur S. Slutsky (Canada)
 George J. Baltopoulos (Greece)
- Lecture:** **CONSTANT FLOW VENTILATION**
Speaker: Arthur S. Slutsky (Canada)
- 0176** · CURCUMIN, A NUCLEAR FACTOR KAPPA BETA INHIBITOR, REDUCE VENTILATOR-INDUCED LUNG INJURY
E Piacentini, J Lopez-Aguilar, C García, A Villagrà, G Murias, P Fernandez-Segoviano, JR Hotchkiss, LI Blanch.
- 0178** · CONTRIBUTIONS OF VASCULAR FLOW AND PULMONARY CAPILLARY PRESSURE TO THE DEVELOPMENT OF VENTILATOR-INDUCED LUNG INJURY
E Piacentini, J Lopez-Aguilar, A Villagrà, G Murias, S Pascotto, A Saenz-Valiente, P Fernandez-Segoviano, JR Hotchkiss, LI Blanch.
- 0179** · GRADED PROTECTIVE EFFECTS OF PEEP IN TWO EXPERIMENTAL MODELS OF VENTILATOR-INDUCED LUNG INJURY IN ISOLATED RABBIT LUNGS
E Piacentini, J Lopez-Aguilar, A Villagrà, G Murias, A Saenz-Valiente, C García, P Fernandez-Segoviano, JR Hotchkiss, LI Blanch.
- 0233** · RATS SURVIVING AFTER HIGH TIDAL VOLUME VENTILATION SHOW MARKED AND REVERSIBLE PULMONARY AND SYSTEMIC VASCULAR DYSFUNCTION
N Nin, O Penuelas, M De Paula, P Fernandez-Segoviano, JA Lorente, A Esteban.
- 0681** · LUNG MECHANICS AND PULMONARY FUNCTION AFTER POLYETHYLENEGLYCOL ADDITION TO THE EXOGENOUS SURFACTANT IN AN EXPERIMENTAL MODEL OF ARDS
NA Freddi, LB Haddad, RM Manzano, AR Fernandes, T Mauad, FS Rossi, FAC Vaz, CM Rebello.

Wednesday August 31, 2005

10:30 to 12:00 - Minisymposium 23

Martín Fierro "Mechanical ventilation in the pediatric patient"
Pediatrics/Respiratory medicine

Chairpersons: Peter Rimensberger (Switzerland)
Bettina Von Dessauer (Chile)

Lecture: HIGH FREQUENCY VENTILATION

Speaker: Peter Rimensberger (Switzerland)

0061 - PULMONARY GRAPHICS MONITORING OF VENTILATED
NEWBORN INFANTS
S El Meneza, E Tawfik.

0105 - EVIDENCE-BASED CLINICAL PATHWAY FOR ACUTE VIRAL
BRONCHIOLITIS - ACCESSIBLE AT THE HOSPITAL WEB
H Stene-Johansen, M Flaaskjer.

0159 - A COMPARISON OF TWO VENTILATOR MODES IN PEDIATRIC
PATIENTS WITH ACUTE LUNG INJURY AND ACUTE
HYPOXEMIC RESPIRATORY FAILURE

*A Retta, JA Farias, A Siaba, H Amaro, C Meregalli, R Poterala, E
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G Sheehan, I Ko, F Olazarri.*

0237 - STEPWISE SEDATION PROTOCOL FOR THE INSERTION OF
CENTRAL VENOUS CATHETERS: COMPARISON OF FENTANYL/
MIDAZOLAM WITH KETAMINE/MIDAZOLAM, A PILOT STUDY
*PSL Silva, FVF Leão, GL Gurgueira, SOB Iglesias, HM Neto,
WB Carvalho.*

0521 - AGREEMENT ANALYSIS BETWEEN OXYGEN SATURATION
IN THE RIGHT ATRIUM AND MIXED VENOUS OXYGEN
SATURATION
CA Pérez, PG Mincez, PG Eulmesekian, EJ Schnitzler.

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Barcellos, FC	0189	Bernardo, EP	0569	Blecher, S	0282	Braga, F	0345
Barcellos, FC	0191	Bernardo, EP	0574	Blejman, S	0626	Braga, F	0346
Barcellos, FC	0633	Bernik, M	0086	Blicheriene, F	0550	Braga, F	0675
Barcenilla-Gaite, F	0263	Bernik, M	0091	Blom, M	0451	Braña, E	0590
Barichello, T	0419	Bernik, M	0200	Blom, MB	0033	Branco, RG	0527
Barradas, J	0200	Bernik, M	0310	Blom, MB	0035	Branco, RG	0528
Barral, E	0203	Bernik, MM	0045	Blom, MB	0053	Branco, RG	0537
Barral, E	0312	Berquó, L	0497	Blotta, MHSL	0065	Branco, RG	0551
Barral, E	0338	Berreta, E	0659	Boaventura, AP	0146	Branco, RG	0594
Barral, E	0613	Berreta, J	0087	Bobenrieth, F	0177	Branco, RG	0644
Barrangú, M	0448	Berro, M	0512	Bobenrieth, F	0181	Brandão, JC	0038
Barrangú, M	0458	Bertacchini, A	0135	Boccardo, F	0629	Brandão, M	0668
Barreira, E	0493	Bertaux, O	0439	Boggia, J	0236	Brandão, MB	0075
Barros, B	0634	Berté, M	0135	Bohlke, M	0633	Brandão, ML	0657
Barros, B	0638	Bertinelli, A	0104	Böhlke, M	0189	Brands, R	0015
Barros, B	0641	Bertolotti, A	0464	Böhlke, M	0191	Branne, D	0273
Barros, B	0655	Bertolotti, A	0536	Böhm, S	0385	Brauner, JS	0032
Barros, B	0658	Berwart, F	0155	Böhm, SH	0391	Brauner, JS	0035
Barros, PRG	0057	Berwart, F	0177	Böhm, SH	0393	Brauner, JS	0053
Barroso, NG	0623	Berwart, F	0181	Bolgiani, A	0129	Braz, JRC	0306
Barsosa, TSM	0611	Bettencourt, ARC	0654	Bonardo, P	0363	Braz, JRC	0356
Barth, JE	0417	Bevilaqua, C	0448	Bonelli, I	0348	Braz, LG	0356
Barth, JH	0374	Bezerra, M	0540	Bonelli, J	0448	Braz, MG	0356
Barth, JH	0392	Bezerra, M	0546	Bongiorni, GW	0074	Brindley, PG	0083

Brito, CH	0588	Cagido, VR	0266	Capdevielle, M	0261	Carvalho, WB	0556
Brito, J	0323	Cagido, VR	0457	Capdeville, L	0460	Casarini, KA	0530
Brito, J	0326	Cagido, VR	0593	Capdeville, L	0626	Casarsa, A	0632
Brito, J	0331	Cai, Y	0015	Capellari, R	0129	Casarsa, A	0640
Brito, J	0334	Calabran, L	0155	Capelozzi, VL	0266	Casartelli, CH	0551
Brito, J	0632	Calabran, L	0177	Capelozzi, VL	0565	Casartelli, CH	0644
Brito, J	0640	Calabran, L	0181	Capitanio, G	0471	Caser, EB	0436
Brito, JOR	0540	Calafiori, M	0622	Capona, R	0534	Cassel, L	0033
Brito, JOR	0546	Calasans, MTA	0611	Capparelli, E	0448	Cassel, L	0451
Brodth, S	0033	Calasans, MTA	0617	Capparelli, E	0458	Cassis, S	0155
Brodth, SFM	0374	Calcagno, ML	0209	Cappi, S	0045	Cassis, S	0177
Brodth, SFM	0392	Caldeira, J	0382	Cappi, S	0086	Cassis, S	0181
Brodth, SFM	0406	Caldeira, J	0390	Cappi, S	0091	Castagna, R	0659
Brodth, SFM	0410	Caldeira, JB	0370	Cappi, S	0440	Castarataro, C	0186
Brodth, SFM	0417	Caldeira, L	0281	Cappi, SB	0040	Castarataro, C	0369
Brodth, SFM	0511	Caldeira, MV	0350	Cappi, SB	0183	Castarataro, C	0371
Broggi, L	0129	Caldeiras, L	0387	Cappi, SB	0310	Castarataro, C	0372
Brufato, JC	0299	Caldini, EG	0045	Capria, JJ	0074	Castarataro, C	0409
Bruhn, A	0015	Caldini, EG	0200	Caragna, E	0062	Castarataro, C	0500
Brunet, TP	0633	Callas, S	0456	Caragna, E	0483	Casteluccio, P	0257
Bruno, F	0551	Callefe, F	0033	Cardinal, P	0439	Casteluccio, P	0351
Bruno, F	0594	Callefe, F	0417	Cardoso, DAP	0058	Castillo, L	0071
Bruno, F	0644	Camacho, J	0318	Cardoso, ECD	0615	Castillo, L	0072
Bruno, PMC	0472	Camacho, J	0519	Cardozo, D	0572	Castillo, L	0566
Brunori, F	0038	Camaduro, C	0654	Cariaga, M	0072	Castillo, L	0582
Brust, J	0387	Camargo, CL	0611	Cariaga, M	0566	Castro, G	0459
Bttencourt, MI	0568	Camargo, CL	0617	Cariaga, M	0582	Castro, J	0359
Buckel, E	0155	Camarozano, A	0323	Carino, S	0351	Castro, J	0478
Buckel, E	0177	Cameron, RJ	0469	Carino, S	0468	Castro, JE	0049
Buckel, E	0181	Campos, AD	0538	Carloti, APCP	0621	Castro, L	0287
Budz, B	0438	Campos, AL	0627	Carlotti, A	0455	Castro, L	0408
Bueno, E	0520	Campos, FPF	0310	Carlotti, APP	0670	Castro, M	0058
Bueno, FU	0291	Campos, G	0449	Carmo, A	0632	Castro, R	0071
Bueno, M	0122	Campos, LA	0628	Carmona, MC	0209	Castro, R	0129
Bueno, M	0123	Campos, LA	0631	Carreira, V	0323	Castro-Faria-Neto, H	0167
Bugedo, G	0071	Campos, LA	0634	Carrera-Hueso, JA	0151	Castro-Faria-Neto, H	0465
Bugedo, G	0072	Campos, LA	0638	Carrhill, M	0486	Castro-Faria-Neto, HC	0415
Bugedo, G	0566	Campos, LA	0641	Carrillo, A	0325	Castro-Faria-Neto, HC	0581
Bugedo, G	0582	Campos, LA	0645	Carrillo, A	0332	Catalan, P	0056
Buono, M	0156	Campos, LA	0647	Carrillo, A	0339	Catania, M	0472
Burei, L	0152	Campos, LA	0649	Carrillo-Esper, R	0147	Cavalcanti, RL	0623
Burgos, F	0559	Campos, LA	0652	Carrillo-Esper, R	0149	Ccssa Council, SA	0506
Burley, M	0193	Campos, LA	0655	Carrillo-Esper, R	0153	Ccssa Council, SA	0510
Burrell, AR	0288	Campos, LA	0658	Carrizo, NI	0074	Ccssa Council, SA	0516
Burroughs, AK	0474	Campos-Filho, WO	0489	Carson, S	0030	Ceconi, G	0203
Burry, L	0396	Camputaro, L	0463	Carta, A	0350	Ceconi, G	0312
Bustamante, L	0049	Camputaro, L	0524	Carvajal-Ramos, R	0153	Ceconi, G	0338
Bustos, DN	0209	Camputaro, LA	0364	Carvalho, CRR	0201	Ceconi, G	0613
Bustos, JL	0583	Canales, H	0180	Carvalho, CRR	0630	Cemonese, RV	0417
Bustos, MF	0209	Canales, H	0257	Carvalho, FB	0052	Cendoroglo, M	0525
Bustos, R	0535	Canales, HS	0090	Carvalho, G	0593	Ceraso, D	0215
Bustos, R	0544	Canales, HS	0100	Carvalho, GMC	0457	Ceraso, D	0229
Butera, J	0463	Canales, P	0211	Carvalho, LP	0645	Ceraso, D	0448
Caballero, H	0344	Canales, P	0262	Carvalho, LP	0652	Ceraso, D	0458
Caballero, H	0403	Canals, C	0206	Carvalho, LR	0306	Ceraso, D	0460
Caballero, H	0435	Canals, C	0666	Carvalho, LR	0356	Ceraso, D	0626
Caballero Zirena, AC	0145	Canals, C	0672	Carvalho, M	0333	Ceraso, D	0659
Cabral, M	0476	Candiotti, M	0122	Carvalho, M	0340	Cerda, E	0245
Cabral, V	0308	Canet, S	0619	Carvalho, M	0342	Cerda, E	0247
Cacace, N	0094	Cañizo, A	0215	Carvalho, T	0270	Cerda, E	0314
Cadilhe, C	0387	Cantalluppi, LM	0626	Carvalho, WB	0237	Cereijo, E	0296
Cadilhe, C	0476	Cantarelli, M	0327	Carvalho, WB	0360	Cerqueira, CFN	0606
Cadirola, A	0289	Capdevielle, M	0077	Carvalho, WB	0361	Chacon, N	0156
Caetano, JA	0608	Capdevielle, M	0084	Carvalho, WB	0368	Chafer-Placencia, N	0151

Chan, CW	0059	Compagnone, C	0215	Cremonesi, R	0033	David, C	0276
Chant, C	0396	Compagnone, C	0268	Cristofolo, H	0576	David, C	0286
Chattás, A	0629	Compagnone, C	0271	Croti, UA	0639	David, C	0389
Chaud, MN	0360	Compagnone, C	0272	Crow, W	0029	David, C	0513
Chaves, CSAA	0615	Compagnone, C	0443	Crucelegui, S	0186	David, C	0542
Chaves Zambrano, MA	0209	Compains, E	0226	Cruces, P	0318	David, C	0478
Chavez, A	0534	Conceição, CNP	0038	Cruces, P	0324	David, CMN	0121
Chen, C	0099	Concha, B	0211	Cruces, P	0519	David, CMN	0473
Chen, M	0045	Concha, B	0262	Cruz-Neto, L	0440	Davidow, JS	0083
Chena, A	0134	Conishi, R	0576	Cruz-Neto, LM	0034	De Backer, D	0052
Chena, A	0379	Connelly, K	0204	Cruz-Neto, LM	0424	De Francesca, S	0659
Cheregatti, AL	0174	Consales, C	0432	Cruz-Neto, LM	0425	De Janon, L	0475
Cherjovskiy, R	0509	Constenla, I	0439	Cruz-Neto, LM	0428	De Janon, L	0509
Chertcoff, FJ	0301	Contador, RS	0452	Cruz-Neto, LM	0532	De La Fuente, R	0582
Chertcoff, FJ	0627	Contreras, G	0077	Cueto, G	0590	De Leoni, C	0599
Chertcoff, FJ	0679	Contreras, G	0261	Cueto Quintana, P	0475	De Marco, FVC	0472
Chiachiarà, DN	0426	Contreras-Domínguez, V	0147	Cueto Quintana, P	0509	De Paula, M	0233
Chiappero, G	0215	Contreras-Domínguez, V	0149	Cunha, LB	0553	De Paula, M	0234
Chiaratto, V	0653	Contreras-Domínguez, V	0153	Cunha, LJU	0269	De Wit, D	0469
Chiaivone, PA	0187	Contrin, LM	0350	Cunto, E	0194	Dean, L	0482
Chicco, R	0432	Cook, JL	0466	Cupo, P	0455	Degrassi, G	0432
Chicrala, RA	0089	Cooper, M	0421	Curbelo, A	0365	Deheza, M	0448
Chieregato, A	0271	Cooper, M	0423	Curbelo, A	0412	Deheza, M	0458
Chieregato, A	0443	Cooper, M	0552	Curbelo, A	0512	Deheza, M	0626
Chigutti, MY	0639	Cordero, J	0056	Cyr, C	0218	Del Boca, R	0207
Choi, J-I	0293	Cordero, J	0155	Czerwonko, D	0500	Del Rio, A	0320
Cholongitas, E	0474	Cordero, J	0177	Czerwonko, D	0524	Delgado, M	0375
Chueco, AA	0363	Cordero, J	0181	D Empaire, G	0309	Dellavia, PN	0459
Chung, S-S	0244	Cordier, C	0620	D Empaire, G	0413	Delmondes, T	0461
Chung, S-S	0293	Cordier, C	0622	D Empaire, MA	0309	Dementiev, Y	0124
Ciampone, JT	0329	Cordini, ML	0317	D'Avella, D	0268	Descalzi, V	0573
Ciccioli, F	0256	Cornejo, R	0071	d'Empaire, G	0375	Descalzi, V	0587
Ciccioli, F	0258	Cornejo, R	0072	d'Empaire, G	0380	Desmery, P	0448
Cingelova, D	0114	Cornejo, R	0566	d'Empaire, G	0384	Desmery, P	0458
Cintra, AE	0058	Cornejo, R	0582	d'Empaire, G	0618	Detournemine, S	0572
Cintra, MACT	0670	Coronado, I	0171	d'Empaire, MA	0384	Devlin, G	0104
Cintra, OAL	0670	Coronado, I	0383	D'elias, R	0677	Di Calafiori, M	0620
Cioffi, AP	0035	Corral, S	0093	D'onofrio, M	0135	Di Capua, G	0357
Ciorlia, GL	0299	Correa, H	0412	Dacuy, N	0087	Di Carlo, MB	0209
Clavijo, H	0607	Correa, H	0460	Dal'Ge, DP	0388	Di Leone, LP	0422
Clipes, T	0370	Correa, H	0512	Dal-Pizzol, F	0419	Di Leoni Ferrari, A	0352
Clipes, T	0382	Cortazar, M	0103	Dal-Pizzol, F	0422	Dias, AM	0601
Clipes, T	0390	Cortés Díaz, SM	0145	Dalfiori Jr, L	0616	Dias, C	0497
Cochlar, CA	0589	Cortinez, I	0582	Dalmazzo, R	0155	Dias, CM	0593
Cocozzella, D	0273	Cosmo, M	0487	Dalmazzo, R	0177	Dias, FL	0150
Coelho, C	0478	Costa, A	0129	Dalmazzo, R	0181	Dias, FS	0429
Coelho, F	0327	Costa, G	0522	Damasceno, M	0264	Dias, FS	0473
Coelho, JM	0034	Costa, GA	0322	Damasceno, M	0286	Dias, J	0387
Coelho, JMC	0424	Costa, GA	0507	Damasceno, MPCD	0473	Diaz, C	0663
Coelho, JMC	0428	Costa, JD	0189	Damgaard, L	0106	Diaz, C	0667
Coghill, E	0029	Costa, JD	0191	Daminato, F	0203	Diaz, J	0262
Cogswell, A	0354	Costa, L	0455	Daminato, F	0312	Diaz, J	0590
Cohen, C	0448	Cotic-Anderle, M	0027	Daminato, F	0338	Diaz, SM	0070
Coimbra, C	0382	Courtney, M	0222	Daminato, F	0613	Díaz, JP	0211
Coimbra, C	0476	Coutinho, M	0498	Danc, L	0675	Díaz, R	0586
Coimbra, M	0540	Coutinho, RMC	0050	Dantas, SRPE	0265	Díaz Buendía, Y	0296
Coimbra, M	0546	Cozette, P	0619	Darras, E	0318	Díaz-Regañón, J	0246
Colin, V	0015	Cremona, A	0273	Das Neves, A	0257	Diccini, S	0654
Coll, S	0629	Cremona, G	0273	Daur, RB	0038	Diettes, A	0586
Colombo, A	0091	Cremonese, RV	0374	Davalos, K	0344	Diez, M	0536
Colville, GA	0161	Cremonese, RV	0392	Davalos, K	0441	Diez, A	0448
C. Cientif. Permanente, S	0051	Cremonese, RV	0406	Davalos, K	0446	Diez, A	0458
Comignani, P	0464	Cremonese, RV	0410	David, C	0051	Diulio, D	0541
Comignani, P	0536	Cremonese, RV	0511	David, C	0264	Diz, MF	0611

Diz, MF	0617	Elliott, R	0485	Feitosa, MAI	0670	Ferreira, F	0453
Djurovic, B	0230	Elwig, C	0421	Feliu-Mojer, M	0099	Ferreira, F	0557
Dohnikoff, M	0266	Elwig, C	0423	Feltrim, MIZ	0642	Ferreira, F	0560
Dohmann, HF	0568	Elwig, C	0552	Fennel, J	0567	Ferreira, F	0562
Dohmann, HF	0631	Emmerich, M	0448	Fenoglio, DR	0426	Ferreira, F	0569
Dohmann, HF	0631	Emmerich, M	0458	Ferguson, J	0469	Ferreira, HC	0457
Dohmann, HF	0634	Engel, M	0103	Fernandes, ABS	0471	Ferreira, L	0281
Dohmann, HF	0638	Epelde, A	0226	Fernandes, AR	0681	Ferreira, LK	0370
Dohmann, HF	0641	Erljman, R	0398	Fernandes, D	0221	Ferreira, MCR	0639
Dohmann, HF	0645	Escobar, R	0535	Fernandes, E	0555	Ferreira, R	0315
Dohmann, HF	0647	Escobar, R	0544	Fernandes, FC	0457	Ferreira, R	0344
Dohmann, HF	0649	Escuchuri, J	0224	Fernandes, I	0515	Ferreira, R	0441
Dohmann, HF	0652	España, J	0077	Fernandes, I	0522	Ferreira, R	0441
Dohmann, HF	0655	España, J	0084	Fernandes, I	0653	Ferreira, R	0446
Dohmann, HF	0658	España, J	0261	Fernandes, J	0496	Ferrero, H	0069
Dohmann, HFR	0488	Espinoza, M	0646	Fernandes, J	0522	Fialkow, L	0035
Dohmann, HFR	0531	Espinoza, M	0666	Fernandes, J	0653	Figueira, RC	0565
Domont, GB	0121	Espinoza, M	0672	Fernandes, JL	0065	Figueiredo, CE	0657
Donoso, A	0318	Esporcatte, R	0366	Fernandes, MA	0631	Figueiredo, RT	0239
Donoso, A	0320	Esporcatte, R	0557	Fernandes, MA	0634	Figueiredo, RT	0415
Donoso, A	0324	Esporcatte, R	0560	Fernandes, MA	0638	Figueroa, B	0315
Donoso, A	0490	Esporcatte, R	0562	Fernandes, MA	0641	Figueroa, B	0344
Donoso, A	0519	Esporcatte, R	0568	Fernandes, MA	0645	Figueroa, B	0403
Dorman, SH	0014	Esporcatte, R	0569	Fernandes, MA	0647	Figueroa, B	0407
Dougnac, A	0071	Esporcatte, R	0574	Fernandes, MA	0649	Figueroa, B	0414
Dougnac, A	0566	Esquinas, A	0332	Fernandes, MA	0652	Figueroa, B	0435
Dougnac, A	0604	Esteban, A	0233	Fernandes, MA	0655	Figueroa, B	0441
Downey, P	0071	Esteban, A	0234	Fernandes, MA	0658	Figueroa, B	0446
Drago, M	0211	Estenssoro, E	0090	Fernandes, S	0625	Figueroa, B	0453
Drago, M	0262	Estenssoro, E	0100	Fernandez, A	0135	Figueroa, B	0520
Drago, M	0514	Estenssoro, E	0103	Fernandez, AL	0369	Figueroa, M	0468
Drago, M	0534	Estenssoro, E	0140	Fernandez, B	0320	Filártiga, A	0228
Dragosavac, D	0057	Estenssoro, E	0180	Fernandez, G	0659	Filgueiras, N	0461
Dragosavac, D	0058	Estenssoro, E	0257	Fernandez, R	0134	Filho, DJ	0628
Dragosavac, D	0201	Estenssoro, E	0351	Fernandez, R	0379	Filho, DJ	0638
Dragosavac, D	0683	Estenssoro, E	0458	Fernández, A	0596	Filho, DJ	0641
Driver, A	0073	Estenssoro, E	0468	Fernández, G	0626	Filho, DJ	0649
Duarte, A	0086	Eulmesekian, PG	0069	Fernández, J	0273	Filho, PR	0370
Duarte, J	0264	Eulmesekian, PG	0070	Fernández, R	0137	Filho, PR	0382
Duarte, J	0286	Eulmesekian, PG	0521	Fernandez Pardal, MM	0363	Filippa, G	0448
Duarte Silva, J	0239	Evans, LA	0076	Fernandez Rangel, E	0609	Finardi, EMA	0336
Duarte-Neto, AN	0310	Even, L	0125	Fernandez-Segoviano, P	0176	Fini, S	0475
Dubikatis, AY	0252	Faffe, DS	0266	Fernandez-Segoviano, P	0178	Finley, A	0030
Dubin, A	0090	Faffe, DS	0367	Fernandez-Segoviano, P	0179	Fiorentino, R	0127
Dubin, A	0100	Faffe, DS	0452	Fernandez-Segoviano, P	0233	Fiorentino, R	0267
Dubin, A	0103	Fainardi, E	0271	Ferrara, G	0090	Fiori, T	0069
Dubin, A	0140	Falcão, ALE	0058	Ferrara, G	0180	Flaaskjer, M	0105
Ducci, AJ	0660	Falcão, H	0673	Ferrara, G	0351	Flageat, G	0127
Duque, R	0607	Fantoni, DT	0545	Ferrara, G	0468	Fonio, S	0468
Durguerian, JL	0214	Fantoni, DT	0549	Ferrari, CHP	0269	Fonseca, A	0478
Echavarría, E	0398	Fantoni, DT	0550	Ferrari, G	0679	Fonseca, DLO	0032
Eckert, GU	0291	Farias, A	0665	Ferrario, M	0155	Fonseca, EB	0550
Einloft, PR	0551	Farias, E	0387	Ferrario, M	0177	Fonseca, GT	0599
Einloft, PR	0594	Farias, E	0476	Ferrario, M	0181	Fontes, B	0601
Einloft, PR	0644	Farias, FI	0505	Ferraris, J	0070	Fontes, M	0531
Eisenman, A	0126	Farias, JA	0159	Ferreira, CF	0381	Footo, JW	0095
El Assar, M	0234	Farina, P	0475	Ferreira, CG	0148	Footo, JW	0096
El Menezza, S	0061	Farina, P	0509	Ferreira, CR	0310	Formento, C	0365
Elefante, O	0448	Farina, R	0403	Ferreira, CR	0373	Formento, C	0412
Elefante, O	0458	Fariña, G	0483	Ferreira, CR	0377	Formento, C	0512
Elías, F	0214	Favaloro, L	0536	Ferreira, ELA	0682	Forte, DN	0034
Elisabe, D	0097	Favaloro, R	0464	Ferreira, ELA	0684	Fox, V	0485
Elizabeth, M	0162	Favaloro, R	0536	Ferreira, ELA	0685	Fran, CB	0397
Elliott, R	0480	Feeley, K	0248	Ferreira, F	0366	Fran, CB	0405

França, E	0447	García, C	0206	Goldwasser, R	0051	González, G	0339
Franceschino, E	0152	García Guerra, G	0559	Gomes, GS	0488	González, S	0211
Frassanito, P	0432	García Monaco, R	0364	Gomes, GS	0531	González-Sanz, V	0263
Frdlik, J	0175	García Turiella, R	0158	Gomes, M	0264	Gorayeb, R	0530
Freddi, NA	0681	García Turiella, R	0203	Gomes, M	0286	Gorenstein, A	0369
Fredes, M	0177	García Turiella, R	0312	Gomes, M	0548	Gottlieb, I	0675
Freitas, A	0542	García Turiella, R	0338	Gomes, MV	0542	Gottschald, AC	0495
Freitas, APV	0290	García Turiella, R	0613	Gomes, R	0323	Goulart, J	0387
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Fritscher, CC	0026	Garea, M	0165	Gomes, R	0334	Gouveia, F	0326
Frutos-Vivar, F	0249	Garea, M	0629	Gomes, R	0465	Gouveia, F	0331
Frutos-Vivar, F	0250	Garrido, AG	0282	Gomes, R	0632	Graça-Souza, A	0167
Frutos-Vivar, F	0251	Gazzana, MB	0599	Gomes, R	0640	Graf, J	0646
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Fuentes, I	0320	General, F	0559	Gomes, RN	0415	Graf, J	0672
Fuentes, I	0490	Gentil, GCG	0368	Gomes, RN	0581	Grando, V	0229
Fuentes, N	0385	Gentile, A	0165	Gomes, RN	0606	Grando, V	0460
Fukuda, C	0097	Geraldo, C	0387	Gomes, RV	0540	Grasso Fontan, C	0659
Fumele, M	0448	Geraldo, C	0390	Gomes, RV	0542	Grek, O	0627
Fumele, M	0458	Gerez, J	0365	Gomes, RV	0546	Greloni, G	0186
Furtado, ES	0212	Gerez, J	0512	Gomes, RV	0628	Grilli, M	0137
Furtado, MV	0241	Ghisi, J	0540	Gomes, RV	0631	Grillo, O	0273
Furtado, MV	0290	Ghisi, J	0546	Gomes, RV	0634	Grillo, R	0129
Furtado, TC	0089	Gianella Neto, A	0581	Gomes, RV	0638	Grissell, TV	0469
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Gago, R	0382	Giannasi, S	0448	Gomes, RV	0645	Grucci, J	0500
Gago, R	0476	Giannasi, S	0458	Gomes, RV	0647	Guanes, O	0663
Gaio, R	0443	Giannasi, SE	0372	Gomes, RV	0649	Guastelli, LR	0525
Gaitini, L	0484	Giannella-Neto, A	0167	Gomes, RV	0652	Guerrero, J	0376
Galeev, FS	0130	Giannella-Neto, A	0362	Gomes, RV	0655	Guidi, R	0203
Gallani, MCBJ	0157	Giannini, FP	0034	Gomes, RV	0658	Guidi, R	0312
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Gallardo, V	0262	Gilardino, R	0509	Gomez, C	0536	Guimarães, ALG	0472
Gallardo-Murillo, MJ	0249	Gimenez, P	0135	Gomez, DC	0207	Guimarães, E	0280
Gallardo-Murillo, MJ	0250	Gini, M	0338	Gómez, A	0458	Guimarães, E	0284
Gallardo-Murillo, MJ	0251	Gini, M	0613	Gómez, N	0636	Guimarães, E	0285
Gallesio, A	0186	Giordano, F	0139	Gómez Danies, H	0128	Guimarães, E	0395
Gallesio, A	0369	Glenny, R	0208	Gómez Duque, A	0128	Guimarães, E	0401
Gallesio, A	0371	Godinho, V	0281	Gomez Fernandez, H	0663	Guimarães, E	0408
Gallesio, A	0409	Godinho, V	0390	Gomez Fernandez, H	0667	Guimarães, E	0411
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Gallesio, AO	0372	Godino, M	0279	Goncalves, D	0187	Guimarães, HP	0102
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Gallo, S	0414	Godoy, DA	0254	Gonçalves, LA	0518	Gullo, A	0432
Gama, G	0632	Godoy, DA	0255	Gonçalves, SP	0373	Gullo, A	0471
Gamba, F	0260	Godoy, J	0155	Gonçalves, SP	0377	Güntzel, AM	0035
Gambino, F	0012	Godoy, J	0177	Gonçalves, SP	0381	Gurgueira, GL	0237
Gammella, D	0094	Godoy, J	0181	Gonzaga, L	0086	Gustavo, L	0340
Gándara, S	0448	Godoy, P	0487	Gonzalez, D	0229	Gustavo, L	0346
Gándara, S	0458	Godoy, PH	0623	Gonzalez, E	0235	Gutierrez, C	0596
Ganem, F	0065	Godoy, PH	0657	Gonzalez, F	0180	Gutierrez, FLB	0366
Garcia, JPT	0537	Godoy, PH	0665	Gonzalez, F	0257	Gutierrez, P	0449
Garcia, MI	0568	Godoy, PH	0668	Gonzalez, G	0155	Gutierrez, P	0449
Garcia, PC	0336	Godoy, PH	0674	Gonzalez, G	0177	Gutiérrez, A	0224
Garcia, PC	0551	Goecke, IA	0376	Gonzalez, G	0181	Gutiérrez, M	0629
Garcia, PC	0594	Goellner, E	0643	Gonzalez, G	0325	Gutierrez Marfileño, JJ	0609
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Garcia, PC	0680	Goiburú, ME	0228	Gonzalez, M	0318	Hahn, C	0451
Garcia, PCR	0291	Goiburú, ME	0308	Gonzalez, S	0262	Hahn, CE	0033
Garcia, PCR	0537	Goldbaum-Jr, MA	0026	Gonzalez, V	0296	Hajek, T	0175
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Lameu, E	0668	López, A	0325	Magalhães, MD	0473	Martins, ET	0504
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Mendonça, L	0390	Montes, JM	0672	Naganuma, M	0595	Nogueira, PM	0631
Mendonça, MLAF	0531	Montes de Oca, D	0559	Nagel, F	0429	Nogueira, PM	0634
Mendonça-Filho, HTF	0488	Monteverde, E	0159	Nahmias, G	0135	Nogueira, PM	0638
Mendonça-Filho, HTF	0531	Montiel, C	0403	Nakagawa, KJ	0347	Nogueira, PM	0641
Mendoza, G	0449	Montoya, REJ	0601	Nalegach, M	0211	Nogueira, PM	0645
Mendoza, M	0667	Moodley, J	0023	Nalegach, M	0262	Nogueira, PM	0647
Menendez, E	0358	Moodley, J	0113	Napal, J	0273	Nogueira, PM	0649
Menéndez, E	0317	Mora, J	0672	Narvaez, G	0497	Nogueira, PM	0652
Menga, L	0626	Moraes, AC	0682	Nascimento, DO	0606	Nogueira, PM	0655
Menises, M	0103	Moraes, AC	0684	Nascimento, MS	0459	Nogueira, PM	0658
Menises, M	0140	Moraes, AC	0685	Nascimento Jr, P	0356	Nogueira, PM	0658
Menna Barreto, SS	0555	Moraes, G	0478	Nasi, LA	0033	Noguera, M	0414
Menna Barreto, SS	0625	Moraes, L	0483	Nasi, LA	0417	Nogueras, M	0194
Mensa, F	0468	Moraes, MC	0502	Navarpurkar, VU	0014	Nogueras, P	0342
Mercado, M	0566	Moraes, MC	0503	Navarro, M	0534	Nogueras, P	0345
Mercante, WP	0260	Moraes, MC	0505	Negrelli, MC	0639	Nolasco, M	0334
Meregalli, C	0159	Moraes, R	0585	Negri, GA	0209	Nori, G	0443
Merino, O	0171	Moraes, RB	0035	Negro, R	0448	Noritomi, D	0091
Merino, W	0582	Morales, G	0087	Neila, D	0541	Noritomi, DT	0086
Mesejo-Arismendi, A	0151	Morales, MM	0367	Neira, J	0448	Noritomi, DT	0183
Mesquita, ET	0488	Morales, MM	0471	Neira, J	0458	Noval, D	0135
Metze, K	0685	Morales, MM	0565	Neira, J	0626	Noveri, S	0439
Meurant, F	0079	Morales, Y	0413	Neira, J	0659	Nozawa, E	0642
Meyer, R	0421	Moran, D	0480	Neira, P	0093	Nunes, A	0599
Meyer, R	0423	Moreira, D	0323	Nemer, SN	0281	Nunes, DSL	0633
Meyer, R	0552	Moreira, D	0326	Nemer, SN	0370	Nuñez, G	0206
Michelin, MC	0035	Moreira, D	0331	Nemer, SN	0382	Nuñez, H	0215
Michelle, A	0542	Moreira, D	0334	Nemer, SN	0387	Nurulain, SM	0011
Mignini, MA	0116	Moreira, D	0632	Nemer, SN	0390	Nurulain, SM	0013
Mignini, MA	0139	Moreira, D	0640	Nemer, SN	0476	Nyrén, S	0208
Minces, PG	0069	Moreira, E	0542	Nery, P	0456	O'Donnell, DR	0528
Minces, PG	0070	Moreira, E	0548	Nery, P	0616	O'Hehir, M	0073
Minces, PG	0521	Moreira, MM	0682	Neto, AO	0373	Ochoa Parra, M	0607
Mione, E	0260	Moreira, MM	0684	Neto, AO	0381	Ogawa, AR	0495
						Okamoto, V	0630

Olaechea, P	0245	Olmos Kutscherauer, D	0103	Pantoja, MR	0674	Pereda, F	0180
Olaechea, P	0247	Olmos Kutscherauer, D	0140	Parada, M	0380	Pereda, F	0257
Olaechea, P	0314	Orellana, I	0607	Paraiso, L	0281	Pereda, F	0351
Olazarri, F	0093	Orellana, T	0262	Paraiso, L	0476	Pereda, F	0468
Olazarri, F	0159	Orellana-Jimenez, CEA	0052	Paramo, JAM	0089	Pereira, AS	0553
Olazarri, F	0165	Orlandini, FA	0207	Pardo, P	0448	Pereira, FA	0185
Olazarri, F	0629	Ormaechea, E	0412	Pardo, P	0458	Pereira, IMR	0404
Oliva-Gimeno, A	0151	Orøy, A	0605	Pardo, P	0659	Pereira, KC	0488
Olival, S	0326	Ortega, F	0607	Paredes, O	0663	Pereira, KC	0531
Olival, S	0334	Ortega, O	0636	Paredes, O	0667	Pereira, LC	0035
Olival, S	0632	Ortega, P	0449	Paredes, O	0667	Pereira, MM	0615
Olival, S	0640	Ortellado, J	0441	Parés, J	0135	Pereira, S	0375
Olival, SA	0540	Ortellado, J	0446	Park, EM	0298	Pereira, SA	0459
Olival, SA	0546	Ortiz, C	0228	Park, J-T	0293	Pereiro, MP	0214
Olivares-Durán, EM	0231	Ortiz, H	0448	Park, M	0034	Perelmuter, H	0156
Oliveira, AM	0461	Ortiz, I	0435	Park, M	0183	Peres, PF	0057
Oliveira, CF	0302	Orue, S	0663	Park, M	0440	Pereyra Gonzales, O	0135
Oliveira, CF	0313	Orue, S	0667	Park, M	0532	Perez, AC	0069
Oliveira, CF	0322	Oshima, K	0025	Park, M	0630	Perez, CA	0070
Oliveira, CF	0495	Osioovich, H	0354	Parollo, E	0035	Perez, D	0604
Oliveira, CF	0507	Osnten, TGH	0589	Parolo, E	0585	Perez, MH	0679
Oliveira, D	0323	Osório, L	0478	Parra, L	0137	Pérez, CA	0521
Oliveira, D	0496	Ospital, M	0559	Parra, Z	0077	Pérez, F	0618
Oliveira, DSF	0322	Otárola, A	0211	Parra, Z	0084	Pérez, MH	0301
Oliveira, DSF	0495	Otárola, A	0262	Párraga, M	0325	Pérez, MH	0363
Oliveira, DSF	0507	Otero, R	0492	Párraga, M	0332	Perez Lloret, S	0573
Oliveira, ES	0033	Otsuki, DA	0545	Párraga, M	0339	Perez Lloret, S	0587
Oliveira, ES	0374	Otsuki, DA	0549	Paruk, F	0023	Perez Rada, FJM	0609
Oliveira, ES	0392	Otsuki, DA	0550	Paruk, F	0113	Perman, M	0358
Oliveira, ES	0406	Pacheco, C	0077	Pascotto, S	0178	Perman, M	0371
Oliveira, ES	0410	Pacheco, C	0084	Pasqualucci, CA	0545	Perman, M	0463
Oliveira, ES	0417	Pacheco, C	0261	Pasqualucci, CA	0549	Perreault, M	0396
Oliveira, ES	0511	Pacheco, C	0270	Passaro, CP	0266	Perrie, H	0506
Oliveira, F	0632	Pacheco, P	0415	Pássaro, CP	0367	Perrie, H	0510
Oliveira, F	0640	Padilha, KG	0329	Pássaro, CP	0593	Perrie, H	0516
Oliveira, FT	0366	Padilha, KG	0336	Passos, J	0478	Peterlini, MA	0400
Oliveira, FT	0560	Padilha, KG	0518	Passos, NMM	0614	Peterlini, MAS	0361
Oliveira, GM	0657	Padilha, M	0331	Pastore, L	0456	Peterlini, MAS	0368
Oliveira, GM	0665	Paggi, M	0505	Pastore, L	0616	Petersson, J	0208
Oliveira, GM	0668	Pahnke, PB	0207	Patch, D	0474	Petroianu, GA	0011
Oliveira, GM	0674	Paiva, D	0625	Patterson, AJ	0099	Petroianu, GA	0013
Oliveira, JV	0190	Paiva, DN	0555	Paula, FE	0670	Piacentini, E	0176
Oliveira, M	0525	Paiva, R	0211	Paz, EL	0171	Piacentini, E	0178
Oliveira, MBG	0471	Paiva, R	0262	Paz, M	0409	Piacentini, E	0179
Oliveira, MBG	0606	Paiva, R	0514	Paz, M	0500	Piacenza, A	0572
Oliveira, MFB	0185	Paiva, R	0534	Pazos, I	0618	Picolla, V	0267
Oliveira, NS	0611	Paiva, RAN	0170	Pech, T	0391	Pierce, C	0161
Oliveira, NS	0617	Paiva, RNA	0162	Pech, T	0393	Pike, SE	0202
Oliveira, RARA	0058	Paiva, RNA	0163	Pedreira, MLG	0360	Pilau, J	0630
Oliveira, RARA	0201	Pal, JC	0309	Pedreira, MLG	0361	Pilipec, AE	0426
Oliveira, RARA	0404	Pal, JC	0384	Pedreira, MLG	0368	Pin, S	0431
Oliveira, RP	0033	Palacios, MC	0308	Pedreira, MLG	0400	Pina, G	0626
Oliveira, RP	0374	Palenzuela, S	0596	Pedreira, W	0477	Piña, E	0413
Oliveira, RP	0392	Palma, J	0056	Pedrosa, J	0331	Pineda, R	0427
Oliveira, RP	0406	Palma, LA	0643	Pejak, D	0230	Pineda, R	0607
Oliveira, RP	0410	Palomar, M	0245	Peliche, F	0012	Piñero, G	0256
Oliveira, RP	0417	Palomar, M	0247	Pellis, T	0152	Piñero, G	0258
Oliveira, RP	0511	Palomar, M	0314	Pellis, T	0260	Pinheiro, P	0033
Oliveira, RTD	0065	Paniagua, E	0129	Penone, P	0426	Pinheiro, P	0451
Oliveira, SA	0065	Pannenbecker, S	0511	Penuelas, O	0233	Pino, AV	0167
Oliveira, SC	0343	Panta, CB	0625	Peradejordi, M	0464	Pino, AV	0362
Oliveira, SC	0349	Pantoja, JG	0049	Peradejordi Lastras, M	0536	Pino, AV	0581
Oliveira, T	0611	Pantoja, MR	0657	Peralta, O	0364	Pino, S	0359
Oliveira, T	0617	Pantoja, MR	0665	Percovich, M	0398	Pinto, J	0264

Pinto, J	0286	Radell, P	0208	Reynaldi, J	0186	Rocha, M	0205
Pinto, K	0417	Radonsky, V	0270	Reynolds, L	0197	Rocha, M	0390
Pinto, KB	0033	Raimondi, AM	0102	Reynolds, L	0486	Rocha, MG	0343
Pinus, J	0205	Raimondi, N	0215	Reynolds, P	0143	Rocha, MG	0349
Piriz, H	0236	Raja, JR	0098	Reynolds, P	0144	Rocha, PE	0601
Pirret, AM	0182	Rajbhandari, D	0143	Reze, V	0200	Rocha, RM	0366
Pistillo, N	0214	Rajbhandari, D	0144	Rezende, SM	0201	Rocha, RM	0557
Piva, JP	0291	Ramakrishnan, N	0098	Ribas, E	0497	Rocha, RM	0560
Piva, JP	0537	Rambaldo, S	0192	Ribeiro, A	0611	Rocha, RM	0562
Piva, JP	0551	Ramet, J	0010	Ribeiro, A	0617	Rocha, RM	0568
Piva, JP	0594	Ramires, JAF	0065	Ribeiro, AL	0620	Rocha, RM	0569
Piva, JP	0644	Ramirez Borga, S	0273	Ribeiro, AL	0622	Rocha, RM	0574
Piva, JP	0680	Ramirez Borga, S	0273	Ribeiro, C	0505	Rockenback, NG	0511
Plans, J	0315	Ramos, D	0229	Ribeiro, LA	0038	Roderjan, C	0280
Plans, J	0446	Ramos, G	0127	Ribeiro, P	0576	Roderjan, C	0284
Podesta, L	0573	Ramos, G	0129	Richards, AM	0104	Roderjan, C	0285
Podesta, L	0587	Rangel, FOD	0366	Richardson, A	0029	Roderjan, C	0395
Pogetti, R	0601	Rangel, FOD	0557	Richardson, A	0030	Roderjan, C	0401
Polycarpo, M	0387	Rangel, FOD	0560	Rickard, CM	0095	Roderjan, C	0408
Pontes, A	0326	Rangel, FOD	0562	Rickard, CM	0096	Roderjan, C	0411
Pontes, A	0334	Rangel, FOD	0568	Rickard, CM	0143	Roderjan, C	0620
Pontes, A	0632	Rangel, FOD	0569	Rickard, CM	0144	Roderjan, C	0622
Pontes, A	0640	Rangel, FOD	0574	Rickard, CM	0192	Rodrigues, AC	0623
Pontes, RM	0608	Rangel, G	0471	Rickard, CM	0193	Rodrigues, DB	0633
Pontes-Arruda, A	0067	Rapisarda, S	0012	Rieder, MM	0053	Rodrigues, M	0487
Pontet, J	0365	Ravaldini, M	0271	Rigo, LA	0498	Rodrigues, MG	0160
Pontet, J	0412	Ravaldini, M	0443	Rigo, LA	0504	Rodrigues, MG	0162
Pontet, J	0439	Rebello, CM	0681	Rigo, LA	0508	Rodrigues, MG	0163
Pontet, J	0512	Rebolledo, R	0072	Rimachi, R	0052	Rodrigues, MG	0164
Porras, I	0477	Regalla, J	0674	Rios, G	0586	Rodrigues, MG	0170
Porta, F	0554	Regi, FC	0405	Rischbieth, A	0445	Rodrigues, ML	0436
Portella, S	0350	Regis, GM	0623	Ristow, AV	0089	Rodrigues, R	0362
Potch, A	0488	Rego, G	0611	Ritter, C	0419	Rodriguez, A	0509
Poterala, R	0159	Rego, G	0617	Ritter, C	0422	Rodriguez, A	0596
Pozetti, JM	0299	Rego, RC	0361	Rivas, S	0359	Rodriguez, D	0590
Pozo, MO	0090	Regueira, T	0072	Rivas Valenzuela, E	0609	Rodriguez, E	0666
Pozo, MO	0100	Regueira, T	0604	Rivera, R	0262	Rodriguez, G	0159
Prado, KF	0241	Reichert, MG	0172	Rivet, M	0659	Rodriguez, JC	0246
Prado, KF	0290	Reina, R	0180	Roberto, WM	0306	Rodriguez, MD	0325
Prat, D	0359	Reina, R	0257	Roberts, BL	0095	Rodriguez, O	0296
Pratesi, P	0448	Reina, R	0351	Roberts, BL	0096	Rodríguez, JM	0214
Pratesi, P	0458	Reina, R	0468	Roberts, BL	0143	Rodríguez-Colomo, O	0151
Prestoy, SF	0378	Reinke, A	0419	Roberts, BL	0144	Rodríguez-Colomo, O	0263
Pretto, CG	0644	Reinke, A	0422	Roberts, PR	0172	Roeck, M	0554
Previgliano, I	0215	Reisin, RC	0363	Robertson, G	0486	Roesler, R	0422
Previgliano, I	0229	Reismann, H	0391	Robinson, A	0193	Rojas, J	0122
Previgliano, I	0460	Reissman, H	0393	Rocco, JR	0148	Rojas, J	0123
Previgliano, I	0468	Rendon Martinez, G	0427	Rocco, JR	0253	Rojas, O	0261
Previgliano, I	0626	Renedo, A	0325	Rocco, JR	0269	Rojas, R	0407
Previgliano, I	0659	Renedo, A	0332	Rocco, JR	0649	Rojo, S	0229
Previgliano, IJ	0583	Renedo, A	0339	Rocco, JR	0652	Rolando, M	0659
Prezzavento, G	0129	Resende, P	0323	Rocco, JR	0655	Rolls, K	0288
Prieto, D	0659	Retta, A	0159	Rocco, JR	0658	Roma, CE	0373
Procopio, A	0165	Rey, HCV	0366	Rocco, M	0262	Roma, CE	0377
Prota, LFM	0565	Rey, HCV	0557	Rocco, PRM	0266	Roma, CE	0381
Puppo, C	0062	Rey, HCV	0560	Rocco, PRM	0367	Romano, A	0116
Puppo, C	0483	Rey, HCV	0562	Rocco, PRM	0452	Romano-Estrada, L	0153
Quadrelli, SA	0301	Rey, HCV	0568	Rocco, PRM	0457	Romer, A	0099
Queiroz, G	0127	Rey, HCV	0569	Rocco, PRM	0471	Romero, C	0071
Quevedo, J	0419	Rey, HCV	0574	Rocco, PRM	0565	Romero, C	0072
Quintana, J	0056	Rey Kelly, G	0468	Rocco, PRM	0593	Romero, C	0582
Rabadan, A	0524	Reyes, A	0586	Rocco, PRM	0606	Romero, EA	0074
Rabadan, AT	0364	Reyes, R	0211	Rocha, E	0164	Romero, F	0453
Rabelo Jr, A	0461	Reyes, R	0262	Rocha, EM	0608	Romero, J	0229

Romero, M	0572	Sabino, J	0631	Sant, RP	0405	Schnitzler, EJ	0521
Romero, P	0211	Sabino, J	0641	Santa Barbara, RC	0588	Schonffeldt, G	0534
Romero, P	0262	Sabino, J	0649	Santa María, A	0135	Schout, D	0343
Romic, PS	0037	Sabino, J	0652	Santana, JC	0551	Schout, D	0349
Roncally, A	0167	Sabino, J	0658	Santana, JC	0594	Schwartzmann, G	0422
Roncally, A	0362	Saddy, F	0049	Santana, JC	0644	Schwingel, RF	0242
Roncarati, A	0260	Saenz, G	0180	Santana, MCE	0452	Sciuto, V	0558
Ronco, R	0324	Saenz, G	0257	Santana, MCE	0471	Scribante, J	0506
Rosa Diez, G	0186	Saenz, G	0351	Santander, M	0177	Scribante, J	0510
Rose, J	0046	Saenz-Valiente, A	0178	Santander, M	0181	Scribante, J	0516
Ross-Russell, RI	0537	Saenz-Valiente, A	0179	Santeliz, CH	0153	Seckler, M	0091
Rossi, FS	0681	Saghaei, M	0111	Santiago, EM	0227	Segovia, V	0582
Rossini, JP	0626	Saint Martin, MT	0049	Santiago, PM	0588	Seidl, EMF	0530
Rossini, P	0659	Saitúa, F	0519	Santiago, S	0492	Sekkel, V	0580
Rosso, E	0643	Salas, K	0376	Santopinto, J	0448	Senna, K	0647
Rota, LM	0633	Salazar, M	0171	Santopinto, J	0458	Senzolo, M	0474
Rouge, A	0628	Salcedo, G	0171	Santoro, AL	0349	Seródio, I	0387
Rouge, A	0631	Sales, J	0478	Santos, AE	0670	Seródio, I	0476
Rouge, A	0634	Sales, P	0642	Santos, B	0323	Serrano Jr, CV	0065
Rouge, A	0638	Salgado, CG	0560	Santos, B	0326	Servadei, F	0268
Rouge, A	0641	Salgado, CG	0568	Santos, B	0331	Servadei, F	0272
Rouge, A	0645	Salgado, DR	0160	Santos, B	0334	Sfoggia, A	0594
Rouge, A	0647	Salgado, DR	0162	Santos, B	0540	Sfoggia, A	0644
Rouge, A	0649	Salgado, DR	0163	Santos, B	0546	Shafiullah, M	0011
Rouge, A	0652	Salgado, DR	0164	Santos, B	0632	Sharp, M	0206
Rouge, A	0655	Salgado, DR	0170	Santos, B	0640	Shaw, S	0304
Rouge, A	0658	Salgado, P	0087	Santos, BFC	0525	Shaw, S	0474
Rovira, D	0158	Salluh, J	0167	Santos, C	0448	Sheean, G	0659
Rovira, D	0203	Salluh, J	0362	Santos, C	0458	Sheehan, G	0159
Rovira, D	0312	Salluh, J	0465	Santos, CGF	0615	Sheehan, MG	0165
Rovira, D	0338	Salluh, JIF	0148	Santos, EAA	0461	Shilton, J	0127
Rovira, D	0613	Salluh, JIF	0581	Santos, L	0541	Shin, S	0515
Royse, A	0198	Sallusti, R	0432	Santos, LV	0599	Shin, S	0653
Royse, A	0204	Saloum, F	0159	Santos, M	0647	Shoemaker, WC	0118
Royse, C	0198	Salva, S	0309	Santos, MF	0121	Shoemaker, WC	0119
Royse, C	0204	Salva, S	0384	Santos, OFP	0525	Shteiner, E	0126
Rubi D, A	0577	Salvatierra, C	0500	Santos, RP	0388	Shyamsunder, T	0118
Rubianes, J	0626	Salvloff, V	0448	Santos, RP	0553	Shyamsunder, T	0119
Rufinelli Vera, J	0520	Salvloff, V	0458	Santos, RP	0580	Siaba, A	0159
Ruiz, C	0548	Samaniego, C	0407	Santos, RP	0599	Sichieri, K	0200
Ruiz Diaz, J	0308	Samet, E	0125	Santos-Díaz, R	0249	Sillitti, S	0135
Rutherford, CM	0628	Sampaio, PP	0675	Santos-Díaz, R	0250	Silva, AE	0306
Rutherford, CM	0634	Sampaio, S	0456	Santos-Díaz, R	0251	Silva, AM	0174
Rutherford, CM	0645	San Juan, J	0156	Santschi, M	0218	Silva, CGB	0633
Ruzany, F	0160	San Juan, J	0194	Sapuppo, MF	0116	Silva, E	0282
Ruzany, F	0162	San Roman, E	0371	Sarasino, A	0229	Silva, EMC	0523
Ruzany, F	0163	San Roman, E	0409	Sarathi, M	0303	Silva, EMC	0564
Ruzany, F	0164	San Roman, E	0500	Sartori, J	0403	Silva, ES	0511
Ruzany, F	0170	San Roman, JE	0372	Sartori, J	0453	Silva, FR	0241
Ruzza, T	0185	San Román, E	0659	Sasaki, MT	0523	Silva, G	0331
Ryan, S	0371	Sanchez, V	0069	Sasaki, MT	0564	Silva, KZ	0670
Ryan, S	0463	Sánchez, A	0231	Satosek, D	0027	Silva, L	0387
Rye, PJ	0469	Sanchez Nava, VM	0609	Saul, P	0156	Silva, LEP	0671
S.A.T.I. Net, S	0210	Sánchez-Crespo, A	0208	Saul, P	0194	Silva, LPM	0190
Sá, FRN	0495	Sanchez-Ferrer, A	0234	Savedra, C	0387	Silva, ME	0594
Sá Jr, S	0333	Sánchez-Izquierdo, R	0249	Savi, A	0033	Silva, MFR	0424
Sá Jr, S	0340	Sánchez-Izquierdo, R	0250	Savi, A	0417	Silva, MFR	0425
Sá Jr, S	0342	Sánchez-Izquierdo, R	0251	Schettino, G	0327	Silva, MFR	0428
Sá Jr, S	0345	Sánchez-Sánchez, MM	0249	Schettino, G	0456	Silva, ML	0670
Sá Jr, S	0346	Sánchez-Sánchez, MM	0250	Schettino, G	0576	Silva, NB	0033
Sá Jr, S	0675	Sánchez-Sánchez, MM	0251	Schettino, G	0616	Silva, NB	0374
Sa'ab, A	0126	Sanders, I	0615	Schiller, J	0206	Silva, NB	0392
Sa-Borgues, M	0246	Sandez, G	0087	Schnitzler, E	0559	Silva, NB	0406
Sabia, G	0271	Sanga, R	0440	Schnitzler, EJ	0070	Silva, NB	0410

Silva, NB	0417	Souza, AAR	0553	Tanfani, A	0271	Tonietto, TF	0417
Silva, NB	0511	Souza, AP	0187	Taniguchi, LU	0424	Tonietto, TF	0511
Silva, PL	0266	Souza, AP	0190	Taniguchi, LU	0425	Toro, A	0468
Silva, PSL	0237	Souza, D	0493	Taniguchi, LU	0428	Toro, M	0180
Silva, R	0579	Souza, D	0496	Taniguchi, LU	0532	Toro, M	0351
Silva, TS	0492	Souza, D	0515	Targa, L	0271	Torres, C	0544
Silva, TS	0498	Souza, D	0522	Targa, L	0443	Torres, J	0206
Silva, TS	0504	Souza, HSP	0581	Tasic, G	0230	Torres, S	0559
Silva, TS	0508	Souza, JP	0373	Tasker, RC	0527	Torres, V	0458
Silva, W	0682	Souza, JP	0381	Tawfik, E	0061	Torres, W	0122
Silva, W	0684	Souza, NKG	0472	Tayar, G	0388	Torres, Y	0413
Silva, WA	0685	Souza, P	0478	Tayar, G	0400	Torres Boden, M	0267
Simon, R	0663	Souza, PCP	0281	Tcherniakovski, L	0436	Torres Millán, JC	0128
Simonato, G	0350	Souza, PCP	0370	Teixeira, R	0225	Toscano, L	0150
Singh, AJ	0354	Souza, PCP	0382	Teixeira, A	0045	Tourinho-Pereira, FSV	0185
Sivieiro, EFF	0299	Souza, PCP	0387	Teixeira, C	0033	Travassos, C	0496
Skarak, P	0114	Souza, PCP	0390	Teixeira, C	0374	Travassos, C	0653
Skarak, P	0598	Souza, PCP	0476	Teixeira, C	0392	Tremeschin, M	0621
Skutaite, R	0295	Souza, PCSP	0473	Teixeira, C	0406	Tresoldi, AT	0265
Sleigh, J	0104	Souza, RCS	0174	Teixeira, C	0410	Trevisan, C	0033
Smith, CA	0192	Spanó, RAB	0523	Teixeira, C	0417	Trevisan, C	0417
Soares, AJC	0121	Spanó, RAB	0564	Teixeira, C	0511	Trevisan, C	0451
Soares, FM	0373	Sparkes, D	0567	Teixeira, W	0665	Trevisan, CE	0053
Soares, FM	0377	Spec Marn, A	0063	Teixeira-Cintra, MAC	0621	Trigo, P	0590
Soares, FM	0381	Spector, N	0148	Tejias, R	0177	Troster, E	0205
Soares, JHN	0167	Spiro, B	0555	Tejias, R	0181	Troster, EJ	0302
Soares, M	0148	Spiro, B	0625	Tellería, A	0224	Troster, EJ	0313
Soares, M	0150	Squadri, A	0640	Tereran, NP	0662	Troster, EJ	0322
Soares, M	0253	Stankovic, D	0230	Terzi, CB	0683	Troster, EJ	0495
Soares, M	0465	Stape, A	0205	Terzi, RGG	0682	Troster, EJ	0507
Soares, SMTP	0201	Starzomski, R	0438	Terzi, RGG	0683	Tsaritksian, G	0127
Soares, SMTP	0404	Stegmuller, B	0418	Terzi, RGG	0684	Tubone, T	0633
Soares, T	0200	Stegmuller, B	0578	Terzi, RGG	0685	Tuche, FA	0634
Sobrinho, CA	0670	Stene-Johansen, H	0105	Terzi, RRG	0058	Tuffaro, J	0448
Soca, A	0439	Stipp, CA	0221	Tesler, K	0484	Tura, BR	0488
Solar Muñiz, H	0587	Strobel, P	0604	Tessmer, CS	0189	Turchetto, E	0385
Solari, L	0094	Stuginski, L	0270	Tessmer, CS	0191	Turchetto, E	0391
Solé-Violán, J	0263	Su, F	0015	Tetamo, R	0116	Turchetto, E	0393
Soler, JA	0325	Suarez, M	0235	Tévez, J	0448	Turchetto, E	0448
Soler, JA	0339	Suarez-Sipmann, F	0391	Tévez, J	0458	Turchetto, E	0458
Solha, L	0657	Suarez-Sipmann, F	0393	Tham, O	0391	Turnock, C	0029
Soloaga, ED	0301	Suárez-Sipmann, F	0385	Tham, O	0393	Turnock, C	0030
Soloaga, ED	0363	Succi, JE	0038	Thomaz, F	0089	Turrini, C	0443
Somri, M	0484	Superti, S	0497	Thompson, DR	0059	Tusman, G	0385
Soncini, R	0593	Suru, F	0619	Thompson, DR	0064	Tusman, G	0391
Song, KY	0298	Sustic, A	0054	Thompson, GM	0300	Tusman, G	0393
Soratti, C	0583	Suzuki, LT	0190	Tiberio, M	0599	Tzou, SJ	0008
Soriano, F	0045	Svampa, S	0558	Tisminetzki, G	0460	Ubal dini, C	0659
Soriano, F	0091	Svendberg, M	0386	Tlapanco, C	0427	Ubal dini, JE	0301
Soriano, F	0200	Swampa, S	0256	Tobar, E	0359	Ubal dini, JE	0363
Soriano, FG	0040	Swampa, S	0258	Toledo, G	0448	Ubal dini, JE	0627
Soriano, FG	0086	Sykora, P	0598	Toledo, G	0458	Ubal dini, JE	0679
Soriano, FG	0183	Szabó, C	0045	Tome, R	0294	Ugo, K	0012
Soriano, FG	0310	Sztiler, F	0026	Tome, R	0484	Urbieta, V	0315
Sos-Navarra, Team	0225	Tabajaras, L	0370	Tomicic, V	0206	Urbieta, V	0520
Sosa, CG	0209	Tabajaras, L	0476	Tomicic, V	0646	Urbina, D	0309
Sosa, G	0596	Tabilo, P	0534	Tomicic, V	0666	Urbina, D	0384
Soto, G	0535	Tagliaferri, F	0271	Tomicic, V	0672	Uret, C	0077
Soto, G	0544	Tagliaferri, F	0272	Tommasello, DC	0260	Uribe, M	0155
Soto, S	0155	Tagliaferri, F	0443	Tonietto, TF	0033	Uribe, M	0177
Soto, S	0177	Takala, J	0554	Tonietto, TF	0374	Uribe, M	0181
Soto, S	0181	Talmon, Y	0125	Tonietto, TF	0392	Vaca Narvaja, RF	0363
Sottile, JP	0100	Talner, H	0135	Tonietto, TF	0406	Vaisman, M	0562
Southerland, KA	0494	Tanamati, C	0327	Tonietto, TF	0410	Valdez, P	0097

Valente, CF	0160	Vecchio, J	0578	Vilella, C	0342	Yamashita, K	0223
Valente, CF	0163	Vega, J	0071	Vilella, C	0345	Yamashita, K	0278
Valente, CF	0164	Vegni, R	0326	Vilella, C	0346	Yanovski, B	0484
Valente, CML	0611	Vegni, R	0334	Villa-Forte, M	0675	Yantorno, S	0573
Valente, CML	0617	Vegni, R	0540	Villafane, M	0315	Yantorno, S	0587
Valentini, R	0348	Vegni, R	0546	Villafane, M	0344	Yapur, VM	0209
Valentini, R	0448	Vegni, R	0628	Villafañe, M	0435	Yastrebov, K	0198
Valentini, R	0458	Vegni, R	0631	Villagrà, A	0176	Yastrebov, K	0204
Valenzuela, J	0155	Vegni, R	0632	Villagrà, A	0178	Yokoyama, T	0223
Valenzuela, J	0177	Vegni, R	0638	Villagrà, A	0179	Yokoyama, T	0278
Valenzuela, J	0181	Vegni, R	0640	Villalobos, M	0500	Young, P	0627
Valenzuela, M	0206	Vegni, R	0645	Villamil, F	0573	Young, PJ	0076
Valeri, C	0200	Vegni, R	0647	Villamil, F	0587	Yu, P	0046
Valeri, CB	0310	Vegni, R	0649	Villar, O	0194	Yum, JS	0298
Valiati, AA	0035	Vegni, R	0652	Villarejo, F	0659	Zakalik, G	0134
Valim, LR	0089	Vegni, R	0655	Villena, R	0262	Zakalik, G	0379
Valks, K	0042	Veiga, JCE	0187	Villena, R	0514	Zaloff Dakoff, JM	0364
Vallejo, S	0234	Vela, C	0619	Villena, R	0534	Zambelli, HJL	0075
Valvassori, S	0419	Velasco, IT	0424	Vincent, JL	0052	Zambrano, P	0211
Valverde, C	0155	Velasco, IT	0425	Violi, D	0448	Zambrano, P	0262
Valverde, C	0177	Velasco, IT	0428	Violi, D	0458	Zambrano, P	0514
Valverde, C	0181	Veltri, MA	0301	Viscaychipi, C	0511	Zambrano, P	0534
Vandersande, R	0448	Veltri, MA	0627	Vivekanandhan, S	0303	Zancanaro, R	0033
Vandersande, R	0458	Veltri, MA	0679	Viveros, C	0659	Zancanaro, R	0035
Vannaprasedh, B	0192	Vendicto, MF	0057	Vivian, L	0048	Zancanaro, R	0053
Vanzan, A	0280	Venegas, M	0414	Vovk, I	0168	Zancanaro, R	0451
Vanzan, A	0284	Ventrice, E	0103	Waggie, Z	0197	Zanei, SSV	0662
Vanzan, A	0285	Ventrice, E	0140	Waggie, Z	0486	Zanon, B	0643
Vanzan, A	0395	Ventura, A	0493	Wakeman, R	0202	Zanon, F	0643
Vanzan, A	0401	Ventura, A	0496	Wallberg, ME	0301	Zappi, D	0271
Vanzan, A	0408	Ventura, A	0515	Walsh, M	0099	Zettler, F	0497
Vanzan, A	0411	Ventura, A	0522	Walz, R	0508	Zimmerman, GA	0581
Varela, F	0186	Ventura, A	0653	Wang, Z	0015	Zin, WA	0266
Varela Otero, MP	0464	Verdeal, J	0478	Wargahadibrata, AH	0132	Zin, WA	0367
Varela Otero, MP	0536	Verícimo, S	0097	Watanabe, A	0302	Zin, WA	0452
Vasconcelos, C	0280	Vetere, L	0475	Weiss, A	0527	Zin, WA	0457
Vasconcelos, C	0284	Vetere, L	0509	Weksler, A	0326	Zin, WA	0471
Vasconcelos, C	0285	Viana, JM	0489	Weksler, A	0334	Zin, WA	0565
Vasconcelos, C	0395	Vianna, A	0542	Weksler, A	0540	Zin, WA	0593
Vasconcelos, C	0401	Vianna, A	0548	Weksler, A	0546	Zin, WA	0606
Vasconcelos, C	0408	Vicente, WVA	0621	Welsh, T	0469	Zitto, P	0439
Vasconcelos, C	0411	Victorino, JA	0497	Werneck, G	0647	Zlochevsky, E	0270
Vasiljevic, B	0024	Victorino, JA	0502	Whitaker, IY	0347	Zohar, Z	0126
Vasta, L	0097	Victorino, JA	0503	Whitaker, IY	0660	Zoilo, I	0257
Vasta, L	0475	Victorino, JA	0505	Wickert, R	0033	Zoilo, I	0351
Vaz, FAC	0302	Videcnik Balazic, K	0063	Wickert, R	0417	Zolotukhin, KN	0130
Vaz, FAC	0313	Viegas, M	0488	Williamson, D	0396	Zonis, Z	0124
Vaz, FAC	0322	Vieira, FC	0599	Williamson, MK	0172	Zonis, Z	0125
Vaz, FAC	0495	Vieira, RNF	0269	Wilson-Barnett, J	0078	Zonis, Z	0126
Vaz, FAC	0507	Vieira, S	0451	Wolanow, V	0626	Zuñiga Velazquez, C	0427
Vaz, FAC	0681	Vieira, SR	0032	Wolanow, V	0659	Zunkovic, M	0335
Vazquez, JA	0426	Vieira, SR	0033	Wong, J	0099	Zunkovic, V	0341
Vazquez, W	0137	Vieira, SRR	0035	Wong, K	0073	Zupan, Z	0054
Vázquez, R	0398	Vieira, SRR	0053	Wylar-Von Ballmoos, M	0554	Zveibil, F	0126
Vazquez de Anda, GF	0394	Vieira, SRR	0417	Xavier, SS	0557		
Vazquez de Anda, GF	0427	Vilella, R	0265	Xisto, DS	0452		
Vazquez de Anda, GF	0577	Vilella, C	0333	Xu, X	0431		
Vecchio, J	0418	Vilella, C	0340	Yagupsky, D	0348		

0008 RELATIONSHIP BETWEEN ORTHOSTATIC HYPOTENSION AND POSTPRANDIAL HYPOTENSION

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Objective: The purpose of this study was to examine the prevalence and relationship among the orthostatic hypotension OH, postprandial hypotension PPH and symptoms resulting from impaired perfusion of various organ. With increasing age, the OH occurring the elder group, assuming the upright position is more often accompanied by symptoms such frail, dizziness and ischemia of fetal organ (such as MI), possibly damage to die. OH is a common clinical finding in older person, depending on the characteristics of the target population and the definition of the disorder. The previous report the prevalence of 7% in health and normal data of blood pressure (BP), 20% occur on sickness and age over 65 years, increasing to 30% of age over 75 years old. According to the results of some epidemiological studies, orthostatic hypotension is associated with advanced age, whereas others have found no association.

Measurement: The research collects the demography-matching sampling, the volunteers who can supine and continues over 3 minutes, from the general ward admitted over 65 years by the onsite blood pressure measurement and symptoms interview. The 60 responses, recording their blood pressure and heart beat during first minute and third minutes in supine and change to sit for six times, including general position, before and after the meal as lunch, control by the symptoms of supine and induced dizziness related medication usage.

Result: The prevalence was 1-3% as different as previous study review, especial occurring on post-standing 3 minutes of non-fasting phase. The differences of blood pressure existed most in post- breakfast 2 hours, post-lunch 2 hours than post-lunch period. The results show many symptoms of impaired perfusion happened during clinical setting and difficult to differential between orthostatic hypotension, postprandial hypotension. The research team still suggested finding more predicted factor and correlation to prevent the impaired perfusion symptoms induced fall in the future research. The results will apply for the clinical health education to elder of ambulance safety, especial the critical time within 3 minutes when the client change position.

0010 ASSESSMENT OF THE NEAR DROWNING CHILD

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BACKGROUND: Drowning is the second most common cause of unintentional injury-related death among children less than 15 years old and is the leading cause of unintentional injury-related death in children from 1 to 4 years old.

Swimming pools account for the major near-drowning accidents, while bathtubs and water filled buckets are the second mostcommon site for preschool drownings.

OBJECTIVE: This presentation outlines the management of the near-drowning child. The principal physiological consequences of submersion incidents are hypoxia, ischemia, respiratory and metabolic acidosis and hypothermia. In most cases aspiration of liquid is involved which leads to a persistent impairment of the gas exchange. Arrhythmias and hypovolemia are very likely to occur. The main objective of treatment of the near-drowned patient is limiting neurological damage.

DISCUSSION: Cardiopulmonary resuscitation is the mainstay of immediate management. Aggressiveness and success of the initial resuscitation are strong determinants of long-term prognosis. Initiation of basic and advanced paediatric life support are of vital importance. Treatment consists of resuscitation and stabilization following the European Paediatric Life Support guidelines.

CONCLUSION: The prognosis after a submersion accident depends in the first place on the duration of the submersion, which is often difficult to establish. Submersion for over 5 minutes is prognostically unfavourable. In hypothermia due to submersion the prognostic factors are less clear, in these cases the treatment should always be continued until the core temperature is 32°C or higher. Death from cardiac arrest in hypothermia is failure to respond to resuscitation and rewarming. You are not dead until you are warm and dead.

0011 TIAPRIDE PRE-TREATMENT IN ACUTE HIGH DOSE ORGANOPHOSPHATE EXPOSURE IN RATS

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Introduction: Organophosphates (OP) are widely used substances. Accidental and suicidal exposures are frequent. The inhibition of esterases by OP leads to an endogenous ACh poisoning. Recently the FDA approved oral pyridostigmine (PSTG) for pre-exposure treatment of some nerve gases; the concept is to block the cholinesterase reversibly using the carbamate in order to deny access to the active site of the enzyme to the irreversible inhibitor (OP) on subsequent exposure. We have shown previously that tiapride (TIA) is in vitro a weak inhibitor of AChE and also that tiapride pretreatment reduces mortality in rats.

Purpose of the study: To establish in a prospective, non-blinded study in a rat model of acute high dose OP (paraoxon; POX) exposure the ideal point in time for TIA pre-treatment administration and to correlate it with previously established TIA plasma levels.

Material & Methods: There were six groups of rats in each cycle of the experiment and each group contained six rats. The procedure was repeated twelve times (cycles) (n=72 for each arm; half male and half female). Statistical analysis was performed on the mortality data using the Mann-Whitney rank order test. All substances were applied ip. All groups (1-6) received 1 µM POX (LD75); groups 1-5 also received 100 µM TIA at different points in time.

Group 1 (G1): TIA 120 min before POX

Group 2 (G2): TIA 90 min before POX,

Group 3 (G3): TIA 60 min before POX,

Group 4 (G4): TIA 30 min before POX,

Group 5 (G5): TIA & POX simultaneously,

Group 6 (G6): POX only.

The animals were monitored for 48 hours and mortality was recorded at 30 minutes, 1, 2, 3, 4, 24 and 48 hours. AChE activities were determined at 30 minutes, 24 and 48 hours in surviving animals.

Results: The table shows the % mortality (Mean±SD). Mortality is statistically significantly reduced by TIA pre-treatment if TIA is given 90 to 0 minutes before OP exposure. Highest protection is achieved if TIA is given 30 to 0 minutes before OP exposure. The reduction in mortality is not correlated to TIA plasma levels (maximum 120 min post-administration). TIA pre-treatment is not affecting AChE activity regardless of the timing of administration.

Discussion: The lack of correlation between TIA plasma levels and degree of mortality reduction as well as the lack of any protective effect on enzyme activity (as shown previously) indicate that the site of action of TIA is not the blood.

Possibly TIA reduces mortality by an anti-seizure effect in the CNS.

Group	30 min	1 h	2 h	3 h	4 h	24 h	48 h
G1	38±27	60±23	61±22	61±22	61±22	61±22	61±22
G2	40±30	50±30	50±30	50±30	50±30	53±30	53±30
G3	42±22	50±27	50±27	51±29	51±29	53±28	53±28
G4	39±20	46±20	49±18	49±18	49±18	50±19	50±19
G5	42±23	50±21	50±21	50±21	50±21	50±21	51±21
G6	71±16	72±16	74±16	74±16	74±16	74±16	74±16

0012 MORTALITY INDICATORS AMONG PATIENTS WITH ANEURISMAL SUBARACHNOID HEMORRHAGEF Gambino¹, K Ugo¹, F Pelicci², S Rapisarda²¹ Central Military Hospital; ² Rio Gallegos Regional Hospital

Objective: Determine the mortality indicators among the patients in the Intensive Care Unit with aneurysmal subarachnoid hemorrhage.

Methods: Prospective study of 95 patients admitted in the Intensive Care Unit due to aneurysmal subarachnoid hemorrhage. In each patient was considered the age, Hunt y Hess score, Fisher score, average of body temperature during the stay in ICU, average of glucose blood level, requirement of invasive ventilation and the outcome. All the results were tested with lineara regression statistical test and a p value less than 0.05 is significant.

Results: Among the 95 adult patients with aneurysmal subarachnoid hemorrhage admitted in the ICU 40(42%) required invasive mechanical ventilation (IMV) but 28(29.5%) of them died. The mean age of the patients was 52 years old. The mean glucose blood level was 148mg/dl (SD=63). The mean average body temperature was 37 celsius (SD=1). The incidence of mortality among the patients who required IMV and with an average body temperature less than 36 celsius is 100% (n=3), but among them with a body temperature between 36 up to 37 celsius is 5% (n=3). The mortality incidence is 70% (n=21) when the body temperature is higher than 37 celsius. (p<0.001, OR=1.2-9.8). The incidence of mortality among those who required IMV and average of glucose blood level lower than 140 mg/dl is 13% (n=3) but it is 50% (n=20) among those with glucose blood level higher than 140mg/dl (p<0.001, OR=2,3-3,2)

Conclusions: Among the patients who required invasive mechanical ventilation during their admission in the Intensive Care Unit due to aneurysmal subarachnoid hemorrhage, the incidence of mortality is higher when the body temperature is less than 36 celsius or higher than 37 celsius. Glucose blood level higher than 140 mg/dl increases the risk of death among the patients with aneurysmal subarachnoid hemorrhage 37%. The average of body temperature and the glucose blood level are two indicators of mortality among patients with SH who required IMV.

0013 PYRIDOSTIGMINE PRE-TREATMENT IN ACUTE HIGH DOSE ORGANOPHOSPHATE EXPOSURE IN RATS

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Introduction: Organophosphates (OP) are widely used substances. Accidental and suicidal exposures are frequent. Nerve gas OP were also involved in a terrorist attack in Tokyo in 1995. The inhibition of esterases by OP leads to an endogenous ACh poisoning. The standard therapy is described by the mnemonic A FLOP (Atropin, FLuids, Oxygen, Pralidoxime). Recently the FDA approved oral pyridostigmine (PSTG) for pre-exposure treatment of some nerve gases; the concept is to block the cholinesterase reversibly using the carbamate in order to deny access to the active site of the enzyme to the irreversible inhibitor (OP/nerve gas) on subsequent exposure.

Purpose of the study: To compare in a prospective, non-blinded study in a rat model of acute high dose OP (paraoxon; POX) exposure the protection conferred by standard oxime (pralidoxime; PRX) treatment and pyridostigmine (PSTG) pretreatment with the effect of their combination (PSTG pretreatment + PRX treatment).

Material & Methods: There were six groups of rats in each cycle of the experiment and each group contained six rats. The procedure was repeated six times (cycles) (n=36 rats for each arm; half male and half female). Statistical analysis was performed on the mortality data using the Mann-Whitney rank order test. All substances were applied ip.

Group 1 (G1) received 1 µM POX (LD75),

Group 2 (G2) received 1 µM PSTG + 30 min later 1 µM POX,

Group 3 (G3) received 1 µM PSTG + 30 min later 1 µM POX + 50 µM PRX,

Group 4 (G4) received 1 µM POX + 50 µM PRX,

Group 5 (G5) received 1 µM PSTG,

Group 6 (G6) received 50 µM PRX.

The animals were monitored for 48 hours and mortality was recorded at 30 minutes, 1, 2, 3, 4, 24 and 48 hours.

Results: First row in table: Mortality in % (Mean±SD); Second row: 95% Confidence Interval. Mortality in both treatment-only groups (no OP) G5 & G6 was zero.

Mortality in all treatment groups (G2, G3 and G4) is statistically significantly lower than in G1 (POX only)

(p<0.005 for G2 & G4 vs. G1; p<0.05 for G3 vs. G1). Mortality in G2 (pretreatment only) is lower than G3 (pretreatment + treatment) (p<0.05).

Discussion: All treatment regimens significantly reduce mortality. Best results are obtained with PSTG pretreatment (30 min before POX) and with coadministration of PRX with POX. PSTG pretreatment (30 min before POX) followed by coadministration of PRX with POX is in our model less protective than PSTG pretreatment alone.

If these results can be confirmed in other species and using different OP/nerve gases the concept of combining carbamate pretreatment with oxime reactivation might need reassessment.

Group	30 min	1 h	2 h	3 h	4 h	24 h	48 h
G1	64 ± 7	72 ± 13	75 ± 14	75 ± 14	75 ± 14	75 ± 14	75 ± 14
	57-71	58-86	60-89	60-89	60-89	60-89	60-89
G2	11 ± 13	11 ± 13	11 ± 13	11 ± 13	14 ± 19	22 ± 17	22 ± 17
	0-25	0-25	0-25	0-25	0-34	4-40	4-40
G3	33 ± 21	39 ± 25	42 ± 23	44 ± 20	44 ± 20	44 ± 20	44 ± 20
	11-56	13-65	18-65	23-65	23-65	23-65	23-65
G4	8 ± 13	17 ± 15	19 ± 16	19 ± 16	19 ± 16	22 ± 20	28 ± 20
	0-23	1-32	2-36	2-36	2-36	1-43	7-49

0014 THE USE OF RECOMBINANT FACTOR VII A IN A PATIENT WITH MAJOR HEMORRHAGE POST PANCREATIC NECROSECTOMY

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Background / Objectives

Recombinant activated factor VII (rFVIIa) is a potent procoagulant which has been used extensively in the treatment of bleeding episodes in haemophiliacs who have inhibitors to factors VIII or IX. There is increasing interest in the use of rFVIIa as an adjunct to the management of bleeding and coagulopathy in the critical care setting. We describe a patient in whom rFVIIa was used to treat continued bleeding post pancreatic necrosectomy.

Methods

We present a case report of a 35 year old male with necrotising pancreatitis and severe post necrosectomy bleeding. The patient's bleeding and coagulopathy was initially treated with infusions of packed cells, fresh frozen plasma, platelets, cryoprecipitate, calcium, desmopressin and apoprotinin. However, he continued to bleed and was therefore given 3 intravenous bolus doses of rFVIIa at 2 hourly intervals. His coagulation studies, transfusion requirements, temperature, acid base status and total fluid requirements were then reviewed in the 12 hours before and after rFVIIa treatment.

Results

After the first dose of rFVIIa the patient's prothrombin time (PT) decreased from 24 to 11 seconds and activated partial thromboplastin time (APTT) from 166 to 54 seconds. 16 units of packed red cells were needed before the final bolus of rFVIIa and none after it. At the time of administration of rFVIIa, the patient's core temperature was 34.8 °C and base excess was -18mmol/L; both of these improved once the bleeding had stopped. Although the patient stopped bleeding and his coagulopathy corrected he died of multi-organ failure secondary to sepsis.

Conclusions

In this patient with necrotising pancreatitis and post operative bleeding, rFVIIa therapy corrected a refractory coagulopathy and he stopped bleeding.

0015

BENEFICIAL EFFECTS OF ALKALINE PHOSPHATASE ADMINISTRATION IN A EWE SEPTIC SHOCK MODEL

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Introduction: Alkaline phosphatase (ALP) can decrease the harmful effects of lipopolysacchride by detoxifying lipid A. The aim of this study was to investigate whether ALP administration in a clinically relevant septic shock model is beneficial.

Methods: Fourteen fasted, anesthetized, invasively monitored, mechanically ventilated female sheep (29.1 ± 3.1 Kg) received 1.5 g/kg body weight of feces i.p. to induce sepsis. Ringer's lactate (RL) + hydroxyethyl starch (Voluven) (volume ratio = 1:1) was titrated to maintain pulmonary artery occlusion pressure (PAOP) at baseline level throughout the experimental period without administration of antibiotics or vasoactive drugs. Two hours after sepsis inducement, animals were randomized to: ALP treatment group: bolus ALP 60 U/kg + 20 U/kg/hour and continued for around 15 hours; control group: no ALP administration. All animals were studied until their spontanous death or for a maximum of 30 hours.

Results: Arterial ALP concentrations decreased significantly in the control group but increased in the ALP treatment group. In the ALP treatment group, mean time to develop hypotension tended to be longer (19.6 ± 2.8 hours vs 14.1 ± 3.4 hours, p = 0.08); mean time to develop oliguria was longer (22.6 ± 2.8 hours vs 15.3 ± 2.6 hours respectively, p < 0.05); PaO2/FiO2 ratio was higher (p < 0.05); IL-6 concentration tended to be lower (p = 0.09). The survival time was longer (25.3 ± 1.8 vs 17.9 ± 2.7 hours, p < 0.05).

Conclusion: In this clinically relevant septic shock model, ALP administration prolonged the time to develop anuria, improved lung oxygenation, and prolonged survival time.

0021

OUTCOME MEASUREMENT OF INSTILLATION OF 0.45% SALINE TO CATHETER SUCTION ON THE ENDOTRACHEAL PATIENTS

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Background/Objectives: Nurses caring for endotracheally intubated patients commonly instill a bolus of normal saline into the endotracheal tube prior to suctioning. The rationale, when identified, is most often to loosen secretions or stimulates a cough. But there is lack of evidence that this practice is beneficial. The purpose of this study is to explore the effect of instill 0.45% normal saline or not into the endotracheal tube.

Methods: Indicators used in the study included: 1) hemodynamic data 2)PaO2 / FiO2, 3) SaO2 4) bacterial colonies. A quasi-experimental research design was employed for this study. During March 2003 to December 2003, total fifty-nine samples were selected from a 1200-beds teaching hospital; twenty-eight patients were in the control group and thirty-one patients were in the experimental group. Four instruments were used in this study: recording file, bedside monitor, gas analytic machine and bacterial colonies machine. Statistical methods including t-test, paired t-test, chi-square and GEE were used for data analysis.

Results: There was a significantly higher incidence of MBP, heart rate and bacterial colonies numbers in the experimental group. The PaO2 / FiO2 results of the control group were better than the experimental group. The SaO2 result just keep the significant increased within 3 minutes after suction, but the data recovery to the same degree as the data of pre-suction after 5 minutes and there's no difference between two groups.

Conclusions: These findings suggest nurses to consider what the most properly nursing care is for the endotracheal patients.

0023

OUTCOME PREDICTION IN CRITICALLY ILL OBSTETRIC AND GYNECOLOGY PATIENTS

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Introduction: There exists no outcome prediction model developed specifically for this unique subset of patients.

Objectives: In a cohort of critically ill obstetric and gynaecology patients to: (i). evaluate the APACHE II score, (ii) prospectively develop and validate an outcome prediction model, (iii) evaluate organ failure (Organ Failure score and SOFA score) and (iv) review SIRS

Design: Prospective study conducted over 2 years in the Surgical ICU at King Edward VIII Hospital, Durban. Institutional ethics approval was obtained. Patients were allocated to 1 of the following categories:

Obstetric hypertensive group (G I), Obstetric non-hypertensive group (G II) and Gynaecology group (G III). Data captured included demographic details, clinical assessment, investigations, treatment, variables required for APACHE II score, organ failure assessment, SIRS and patient outcome. APACHE II, organ failure and SIRS were evaluated in the entire patient subset. For the purpose of the outcome prediction model, the subset was divided into 2 groups: Group A-the development group and Group B-the validation group. STATA 7 software was utilised for data analysis.

Results: The dataset comprises of 260 admission cases. Obstetrics and gynaecology cases represented 18.5% (n=260) of the total ICU population (n=1408). The majority of patients were young (mean age 27 years) and of low parity. The mean ICU stay was 5.5 days. The case mortality for Groups I, II and III was 23.4%, 43.2% and 42.9% respectively. The mean APACHE II score was significantly higher in non survivors compared to survivors (p<0.0001) however APACHE II performed variably in each of the groups. Age, mean arterial blood pressure, respiratory rate, GCS and pH were identified as significant outcome predictors. Using these parameters an obstetric and gynaecology outcome prediction (OGOP) model was developed for each group. The area under the curve for the ROC curves in each of the subgroups was >0.9. Three OF >72 hours, 3 OF >48 hours and 3 OF=48 hours was invariably fatal in groups I, II and III respectively. SOFA scores were significantly higher in non survivors compared to survivors (p<0.0001). A day one SOFA score >19 (G1), 16 (G2) and 14(G3) was also invariably fatal. SIRS, severe SIRS and sterile shock occurred in 78% (113) of GI (n=144) cases, with a collective mortality of 22%. Sepsis, severe sepsis and septic shock occurred in 68% (50) and 60% (25) of GII and GIII cases respectively. Conclusion: The OGOP model is easier to calculate and is superior to APACHE II. Organ failure as well as the SIRS response adds additional outcome information. The OGOP model should constitute the gold standard in assessing outcome prediction for critically ill obstetric and gynaecology patients.

0024

NEONATAL SEPSIS: WHAT IS THE IDEAL DIAGNOSTIC MARKER?

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Objective: Neonatal sepsis (NS) is an important cause of neonatal morbidity and mortality. In neonates early warning signs and symptoms are often minimal, subtle, non-specific, and can easily be misinterpreted as being due to non-infective causes. Microbiological culture results are not usually available until at least 48 hours after the specimen reaches the laboratory; early identification of genuine sepsis is a major diagnostic problem. Antimicrobial treatment based solely on risk factors and clinical grounds is likely to result in over treatment. The aim of this study was to search for an ideal diagnostic marker for diagnosis of neonatal sepsis.

Methods: Our NICU admitted 536 neonates in the period from January 1st to December 31st 2003. We estimated maternal and neonatal risk factor and environmental condition in NICU. Maternal risk factors were age, bacterial vaginosis, vaginal colonization GBS, maternal UTI, chorioamnionitis, PPRM, PIH, diabetes mellitus. Neonatal risk factors included gender, gestation age (GA), birth weight (BW), Agar scores (AS). The environmental condition was assisted ventilation with endotracheal intubations, vascular catheter, prolonged hospitalization and prior antibiotic treatment. Signs and symptoms suggestive of clinical sepsis were: unstable temperature, tachypnoea/apnea, tachycardia/ bradycardia. NS sepsis diagnosis was performed by isolation of causative organisms, elevated serum CRP and IL-8, abnormal hematological parameters (leucocytosis, leucopenia, I/T ratio, thrombocytopenia). Chest and abdominal radiographs were performed routinely. In our study we excluded neonates with major congenital malformation.

Results: The NS incidence was 24.4% and 29.4% of VLBW neonates hospitalized in the NICU of our Institute. NS increased significantly with low BW and GA, male sex, maternal UTI, PPRM, assisted ventilation and umbilical vascular catheter. Cultures were positive in 33.7% of all neonates with positive clinical NS symptoms and elevated serum CRP and IL-8. The most significant NS symptoms and signs were: unstable temperature ($p < 0.01$), tachypnoea/apnea ($p < 0.01$) and tachycardia/ bradycardia ($p < 0.01$). Gram negative organisms were the major cause of NS in our NICU. Klebsiella and E.coli were the most common organisms found in EOS and CONS in LOS. I/T ratio showed a high sensitivity of 95.4%. Low platelet count and DIC were often severe and late signs of infection. CRP increases steadily with GA. We observed increased serum levels of IL-8 before there was a detectable increase of CRP.

Conclusion: The incidence of NS increased with male sex, low BW and GA. Gram negative organisms were the major cause of NS. Maturation changes in the immune system are the more likely explanation for the decrease with GA. Combination of clinical signs with early sensitive markers of NS (IL-8 and I/T ratio) and late specific markers (CRP and low PLT count) are useful indicators of NS.

0025

PLASMA LIPOPOLYSACCHARIDE NEUTRALIZING CAPACITY IN PATIENTS UNDERGOING CARDIAC SURGERY

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Background:

It has been reported that plasma has a lipopolysaccharide neutralizing capacity (LNC). Authors demonstrated that LPS bound to several blood components including albumin, cholesterol, lipoproteins and immunoglobulins. However, there have been few studies which investigated LNC in clinical setting.

Objectives:

In patients with cardiac surgery, blood component drastically changes mainly due to cardiopulmonary bypass. In this study, we firstly investigated perioperative LNC changes in cardiac surgery patients and secondly investigated the factors which affect LNC.

Methods:

Fourteen patients (m/f, 7/7) were included in this study; valve replacement (n=10), CABG (n=3), left atrial myxoma (n=1). Blood samples were obtained before surgery, at admission to intensive care unit (ICU) and at postoperative day (POD) 1 to POD3. Hematocrit, platelet count, albumin concentration, HDL, total cholesterol and triglyceride levels were measured in hospital laboratory and plasma were stored for later LNC analysis. For LNC analysis, 100ng of LPS (Difco, 055:B5) dissolved in 0.1ml distilled water (DW) was added to 0.9ml of patients plasma and incubated for 2 hours at 37°C. LPS concentration was measured using modified Limulus amoebocyte lysate test which removes a beta-D-glucan-sensitive factor G from the lysate (Endospey, Seikagaku Kogyo Co., Ltd, Tokyo). LNC was presented as a percent change from LPS concentration in DW (mean \pm SD): LNC = (LPS concentration in DW - LPS concentration in plasma) / LPS concentration in DW * 100. Multiple regression analysis was used to investigate the independent factors which affected LNC in cardiac surgery patients.

Results:

LNC of preoperative plasma was 80.5 \pm 28.1%. Plasma LNC at admission to ICU, POD1-3 was 40.9 \pm 21.4%, 73.4 \pm 34.5%, 76.6 \pm 21.4%, 69.1 \pm 34.1%, respectively ($P < 0.05$, Dunnett's test). Multiple regression analysis revealed that albumin concentration was an only responsible factor for perioperative LNC change ($P = 0.025$).

Conclusions:

In vitro studies have demonstrated that LPS strongly bound to lipoproteins and/or cholesterol, however, this study showed that albumin concentration was major factor for LPS neutralization in cardiac surgery patients. It might be due to the larger volume of albumin in the blood comparing to platelets or lipids.

0026

MEDICAL FUTILITY AND RESPIRATORY FAILURE: A PROSPECTIVE COHORT STUDYCC Batista², MA Goldbaum-Jr¹, F Sztler¹, JR Goldim³, CC Fritscher¹

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Background. Currently, the reformulation of intensive care goals, often shifting from the search for a cure to offering comfort, has become more and more necessary. In many cases, severely ill patients must depend on intensive therapy to survive. The intensivist is frequently confronted with the decision to suspend or not offer a specific therapy, despite its availability. Moreover, the discord that arises in reference to medical futility has a negative impact on ICU professionals, on the family, and principally, on patient care. Objectives. Estimate the developing risk of probability of death for individual ICU patients with respiratory failure using the UNICAMP II model and evaluate when life-sustaining therapies may be limited or suspended. Method. It is the observational, prospective cohort study of 150 patients with respiratory failure confined to the intensive care unit of the University Hospital São Lucas at PUCRS, Porto Alegre city, Brazil, from September 1, 2002 to December 31, 2003. Results. During the study, 112 of the 150 ICU admissions with respiratory failure remained more than seven days. The systematic assessment of risk of death as it develops in the individual patient using the UNICAMP II model, which distinguishes early and late phases of intervention, proved both viable and quite useful in deciding whether or not new life-sustaining therapies should be offered. Conclusion. Ethical consultation regarding not offering new life-sustaining therapies may be initiated for those ICU patients with respiratory failure who have an initial probability of death of 70%, as assessed by the UNICAMP II model, and who present a 10% increase in risk in the early phase of intervention.

0027 TRIAGE DIFFICULTIES AND NURSING CARE IN PATIENTS WITH PULMONARY EMBOLISM IN THE MEDICAL EMERGENCY DEPARTMENT

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Objective: Pulmonary thromboembolism (PTE) is potentially life-threatening illness. The objective for our study was to find out which information a nurse should use for more proper triage of patient at the medical emergency department (ER) and how nurse could be involved into diagnostic-therapeutical process till final diagnosis.

Methods: We performed retrospective research on patient data collected in period between Oct.2003 and Sept. 2004 at the ER of University Medical Centre Ljubljana. We analyzed following characteristics: gender, age, referring diagnosis, some of the symptoms, time period between arriving to ER and medical examination, time between medical examination and final diagnosis, diagnostic tools used and admission rate

Results: A total of 43 (0.18 %) patients out of 23,068 treated were diagnosed as PTE, 30,2% of them were males and 69,8% females. Mean age was 70 ys (74 ys. for males and 67 ys for females). Most common referring diagnosis was chest pain (16,2%), followed by suspected deep vein thrombosis of lower extremities (9,3%), PTE (9,3%), syncope (9,3%), pneumonia (9,3%), dyspnea (6,9%), myocardial infarction (4,6%), congestive heart failure (4,6%), weakness (4,6%), exacerbation of chronic obstructive pulmonary disease (4,6%), palpitations (2,3%), other diagnosis (6,9%) and no data (11,9%). Most common symptoms patients described were as follows: dyspnea (72,1%), chest pain (44,2%), lower limb pain (32,5%), weakness (23,2%), palpitations (20,9%), abdominal pain (11,6%), nausea (9,3%). Among other diagnostic tools some laboratory measurements (electrolytes (100%), complete blood count (97,6%), D-dimer (97,6%), arterial blood gas studies (95,3%), troponin (76,7%), ECG (97,6%), chest x-ray (86,0%), echocardiography (13,9%), ventilation-perfusion scintigraphy (25,6%) and pulmonary angiography (2,3%) were used. The mean time passed from arriving to ER and clinical assessment was 40 minutes, and the time from clinical assessment and final diagnosis as well as admission to the hospital was 194 minutes. One patient died and other 42 patients were admitted to the hospital, among them 18,6% directly to the intensive care unit

Conclusions: Proper recognition of specific clinical signs and symptoms of PTE is difficult. In our study only 9,3% patients were referred with the diagnosis of suspected PTE. As we expected the most common symptom was dyspnea, followed with chest pain, while some other nonspecific symptoms were also common. It was clearly shown that among the triage diagnostic tools used by the nurse at the ER were some data from the history (location and pain characteristics, PTE risk factors, etc.), as well as the data on blood pressure, peripheral oxygen saturation and 12-leads ECG were most common and informative. It should be emphasized that besides awareness of the seriousness of the diagnosis of PTE, there are still too long periods existing between the patients with symptoms and signs of suspected PTE were examined and diagnosed at the ER. Nursing care is orientated to support patient's needs, mostly stabilizing hemodynamic and respiratory functions

0029 COMPARISON OF NURSES AND PATIENTS ASSESSMENT OF SLEEP IN CRITICAL CARE

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Background: Sleep is important for promoting critical care patient recovery and sleep disturbance is known to cause irritability, aggression and increased stress levels. Despite the importance of sleep, nurses don't acknowledge this when planning patient care. Objective and subjective ways to measure patients sleep have been researched but within critical care the availability and use of valid critical care sleep assessment tools is limited.

Objectives: To compare nurses' assessment of patients sleep with patients' own assessment of their sleep using three user-friendly non-interventional sleep assessment tools in critical care.

Methods: Three sleep assessment-rating scales were constructed to provide easy to understand tools for completion by both patients and nurses in critical care. 82 patients and 82 nurses participated in the study using a convenience sample from four multi-specialty critical care units in one large teaching trust. Patients were included in the study if they met a list a criteria to obtain the most appropriate responses from lucid orientated critically ill patients.

Results: No tool produced a close association between the nurses' assessment of the patients sleep and the patients' assessment of their sleep. Patients found two of the three tools easy to use when rating their sleep.

Discussion: Objective invasive measurements of sleep as well as complex subjective tools appear inappropriate to be used as a part of daily critical care practice. The application of simple rating scores has a high degree of error when nurses assess patients' sleep, even though high levels of patient observation and assessment are practised in critical care.

Conclusions: More research is needed to examine the assessment of patients sleep in critical care, particularly linking rating scales to alternative methods of physical assessment and the assessment of sleep over the complete 24-hour period.

0030 EVALUATING THE IMPACT OF 12 HOUR SHIFTS IN CRITICAL CARE

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Background: Emphasis has been placed upon improving the working lives of staff within the NHS and 12-hour shifts has shown to be one approach contributing to a more flexible pattern of work. Most studies have been conducted on staff working in non-critical care settings and have found varying effects on continuity of care, fatigue and flexible working patterns.

Objectives: The study aims were to examine the impact of 12-hour shifts on critical care staff and analyse the implications of 12-hour shifts for the working practices within critical care settings.

Methods: Data was collected using a staged dual approach consisting of two focus groups with 16 critical care nurses and a questionnaire survey to a sample of 192, 77% of whom returned questionnaires from four critical care units in Northeast of England. Focus group data were transcribed and analysed to identify themes and questionnaire data were analysed using SPSS.

Results: The main findings of the study included the following. The majority of Critical Care nurses perceived 12 shifts as having a positive impact on their ease to plan and prioritise care throughout a shift and with the allocation of sufficient time for nurse-nurse handover. Most nurses found 12-hour shifts lead to improved patient and family relationships. However mixed views were found with the impact of 12 hour shifts on motivation and tiredness at work. A high proportion of nurses working 12 hour shifts found this led to good quality time off work, easier and cheaper to travel to work and made off duty requests more likely to be met. 86% of staff thought the 12-hour shift system should continue and areas for improvement were suggested.

Conclusion: Despite the limitations, this study found common issues with the effects of 12-hour shifts in critical care settings and previous research. If 12-hour shift systems enable flexible working practices, strategies should be established to minimise fatigue and tiredness on staff in the future.

0032 LEPTOSPIROSIS IN INTENSIVE CARE UNITS: A COHORT OF 57 PATIENTSSR Vieira¹, JS Brauner¹, DLO Fonseca²

1 ICU from Clinicas Hospital of Porto Alegre; 2 ICU from Nossa Senhora da Conceição Hospital of Porto Alegre

Background: Leptospirosis is in general a self limited disease but it can be associated with important complications as multiple organ dysfunction and high mortality (1,2).

Objective: The goal from this paper is to evaluate the clinical characteristics and the morbimortality of severe leptospirosis in general Intensive Care Units from two general hospitals.

Methods: All cases with the diagnosis of leptospirosis confirmed by blood macroagglutination test and admitted from 1990 to 2004 were studied. We have analyzed their clinical and laboratory characteristics, the occurrence of multiple organ dysfunction and their mortality rate. We have also compared survivors with non survivors. The quantitative variables have been compared by unpaired t test and the qualitative variables by a Chi squared test.

Results: We described 57 adults patients, 40+16 years, 47 men and 10 women. The most frequent clinical manifestations were fever (n=52), myalgias (n=51), jaundice (n=49) and dyspnea (n=49). All patients showed some level of organ dysfunction as: respiratory (n=51), renal (n=46), hepatic (n=45), cardiovascular (n=35), hematologic (n=32) and neurologic (n=16). The mortality rate was 40% (n=23). The comparison from non survivors with survivors showed they have higher incidences of respiratory, cardiovascular and neurological failures as well as higher levels of acidosis (p<0.05).

Conclusions: In endemic regions leptospirosis has to be considered as a cause of multiple organ dysfunction with a high mortality rate mainly when respiratory, cardiovascular or neurological failures are present.

References:

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0033 PREDICTING SUCCESS IN WEANING FROM MECHANICAL VENTILATION: PRELIMINARY RESULTS FROM A MULTICENTRIC STUDYSR Vieira¹, C Teixeira², LA Nasi¹, C Trevisan¹, RP Oliveira³, A Savi², R Wickert², R Cremonesi², CE Hahn¹, ES Oliveira², FC Alves², F Callefe², JB Herve², KB Pinto², K Hartmann², L Cassel¹, LG Borges², MB Blom¹, P Pinheiro¹, R Zancanaro¹, S Brodt², TF Tonietto², J Horer², NB Silva²

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Background: Failure in weaning from mechanical ventilation (MV) occurs in up to 25-30% from patients, being associated with high mortality. Indexes predicting success can be very helpful clinically. However their predictive capacity is sometimes low and there are controversies concerning which ones have to be used.

Objective: To evaluate weaning predictor indexes in a group of patients during weaning from MV.

Methods: Patients under MV for at least 48 hours, submitted to spontaneous breathing trial (SBT) during 30 minutes, extubated according to clinical assistant physicians decision and followed for 48 hours, were included. They were evaluated concerning age, sex, APACHE, Glasgow score, causes of ICU admission and mechanical ventilation, length of hospital and ICU stay, time of mechanical ventilation, drugs used and clinical characteristics. At first and 30th minutes from SBT there were analyzed: arterial blood gases, hemodynamic parameters as arterial blood pressure and cardiac rate, respiratory parameters as respiratory rate (RR), tidal volume, rapid shallow breathing index (f/VT), maximal inspiratory (P_{lmax}) and expiratory (P_{Emax}) pressures. Comparisons were done between two groups of patients: success versus failure, defining failure as return to mechanical ventilation in the first 48 hours.

Results: 201 patients were studied. Overall mortality rate was 16%. Return to mechanical ventilation occurred in 32%. The most important differences comparing success with failure groups were: lower mortality rate (12% versus 27%, p<0.01), shorter length of hospital and ICU stay (27 ± 21 versus 35 ± 21, p<0.001 and 13 ± 12 versus 19 ± 14 days, p<0.001); less incidence of dyspnea (37% versus 58%, p<0.001), higher PaO₂ at 30th min (100 ± 30 versus 88 ± 25 mmHg, p<0.001), lower RR at first and 30th min (24 ± 6 versus 28 ± 7 bpm, p<0.001, and 24 ± 6 versus 30 ± 8 bpm, p<0.001), lower f/VT at first and 30th min (58 ± 31 versus 78 ± 45, p<0.01 and 56 ± 38 versus 98 ± 74, p<0.001), higher P_{lmax} at 30th min (42 ± 15 versus 36 ± 14 cmH₂O, p<0.05).

Conclusions: In this group of patients a great number failed in the weaning process showing, as expected, a higher mortality rate. Parameters related to failure were longer length of hospital and ICU stay, higher incidence of dyspnea, higher respiratory rate and f/VT index both at the beginning and at the end of the trial and lower level of oxygenation and lower P_{lmax} at the end of the trial.

0034 FEATURES OF CARBAPENEM RESISTANT ACINETOBACTER VENTILATOR-ASSOCIATED PNEUMONIA

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Objective: Ventilator-associated pneumonia (VAP) is common in patients requiring mechanical ventilation for more than 48 hs and is responsible for higher morbidity and mortality. One of the most common pathogens is Acinetobacter baumannii. Carbapenem resistant A. baumannii strains probably pose a challenge in the outcome of VAP. Our purpose was to characterize the A. baumannii-caused VAP population and to compare carbapenem resistant with sensible strains.

Methods: In a retrospective analysis of our prospective collected database, between March 2001 and September 2004, 2132 patients were evaluated, 192 had VAP and 33 patients were diagnosed as A. baumannii-caused VAP by bronchoalveolar lavage (> 10⁴ cfu/ml).

Data are shown as median and interquartile ranges, p < 0.05 was considered significant.

Results: The 27 male and 6 female patients had mainly medical diagnosis (85%), 24.2% were immunosuppressed and 12% had neoplasms. The incidence of A. baumannii-caused VAP was 17%. The main reason for ICU admission was pneumonia associated with sepsis (45.4%) followed by acute respiratory failure and septic shock of nonpulmonary origin (12.1%). Median age was 56(39,70) years old and APACHE II was 22(19,26). Mortality rate was 75.7%. Median ICU stay was 21(14,31) days.

All patients had 4th generation cephalosporin resistance in their antibiogram; two thirds were carbapenem sensible, and one third carbapenem resistant, only sensible to ampicillin-sulbactam association. Organ dysfunction related to VAP was evident in the whole group. The findings were: fall in platelets count, rise in the creatinine level and low PaO₂/FIO₂ ratio; These organ dysfunctions occurred without differences between the A. baumannii resistant and sensible strains {127 (71,218) vs 113 (92,173) [l/mm3] p = 0.71; 1,3 (0,9,2,1) vs 0,8 (0,6,1,3) [mg/dl] p=0.07; 297 (222, 355) vs 283 (198,317) p = 0.30, respectively}

Conclusion: We conclude that Acinetobacter baumannii-caused VAP is an uncommon complication of prolonged ICU stay. These patients show high mortality and evident organ dysfunction at the onset of VAP, both not related to carbapenem sensibility.

0035 INTENSIVE CARE UNIT PATIENTS REQUIRING MECHANICAL VENTILATION: FREQUENCY, MORTALITY, CHARACTERISTICS AND MORTALITY RISK FACTORS

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Background: The Acute Respiratory Failure (ARF) is a frequent cause of internment in Intensive Care Units (ICUs) and usually necessity of Mechanical Ventilation (MV). A multicentric study done in the USA in 2000 showed that the incidence of ARF was 137.1/100,000 in 5-year-old individuals or older (Chest 2000;118:1100-1105). According to the international literature, the mortality rate in the group of patients with ARF receiving or not MV ranges from 28% to 58% (JAMA 2002;287:345-355). Therefore, the knowledge about frequency and risk factors associated to patients requiring MV is essential to improve outcomes. Objectives: To determine the characteristics (age, gender, APACHE II score, organ dysfunction developed prior and/or during the MV, and others), frequency of requirement of MV, and overall and specific mortality rates in patients who developed ARF and needed MV in the ICU of a General University Hospital, in southern Brazil. Methods: Prospective cohort of 133 adult patients admitted to the ICU who needed MV for at least 24 hours, between August 15th, 2004 and January 30th, 2005. Once included in the study the patients were followed daily for up to 28 days. Data were collected daily, during the course of MV on each patient at the inclusion in the study. Initially, an univariable analysis was performed. All variables with a p value <0.25 and/or clinically relevant were included in a multivariate model in order to identify the ones independently associated to mortality up to 28 days after starting MV. Results: The frequency of MV was 13%; the general and specific mortality rates were 8% and 57%, respectively. The mean age was 61 ± 17.3 years; 55% were males; the mean APACHE II score was 22 ± 6.9; and the mean duration of MV was 9.9 ± 6.6 days. The variables that were independently associated to death were: APACHE II score (p=0.01), MV duration (p=0.004), vasoactive drugs use (p=0.01), Sepsis (p=0.007), Acute Respiratory Distress Syndrome (ARDS) (p=0.04) and renal failure (p=0.03) occurring during the period of MV. It should be noted that variables that occurred prior to MV were not associated with mortality in the multivariable analysis. Conclusions: Our partial results suggest a frequency of patients receiving MV of 13% that is associated with an elevated specific mortality rate (57%). APACHE II score, MV duration, vasoactive drug use during the period of MV, Sepsis, ARDS and renal failure occurring during the MV period seem to be risk factors for mortality in 28 days after starting MV. We believe that the increase of the sample universe of this research will provide more conclusive data, perhaps other risk factors associated to mortality in these patients. Identification of these factors may allow early interventions to attempt to mitigate these poor outcomes.

0037 HYPERTONIC SALINE DEXTRAN - THE FLUID OF CHOICE IN PREOPERATIVE VOLUME REPLACEMENT THERAPY OF HEMORRHAGIC SHOCK IN POLYTRAUMATIZED PATIENTS

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Objectives: The authors report their own experience in application of 7.5%NaCl/6%Dextrane70 (HSD).

Methods/Results: Analysis of four clinical studies. In qualitative and quantitative analysis of volume replacement in 581 traumatized soldiers (Study1) they noticed large volume need (average 10 liters) per soldier, during their treatment from battle line to 48h in ICU. In second study, they evaluated volume replacement in 120 hypovolemic polytraumatized soldiers and noticed that HSD group received average 2 liters of volume (RL group more than 6 liters), with best hemodynamic stability and urinary output. In prospective study of 28 patients undergoing operations of abdominal aneurysm (Study 3) authors noticed better hemodynamic parameters and urine output in HSD group (compared with RL group). At least, authors show results of volume replacement study in 40 polytraumatized patients traumatized in traffic accidents and noticed best efficacy resuscitation volume by HSD.

Conclusion: The results show the best efficacy of resuscitation volume by hypertonic/hyperoncotic solution (HSD) in military and civilian settings.

KEY WORDS: Polytrauma, Volume replacement, 7.5%NaCl/6%Dextrane70 (HSD).

0038 THE USE TO METHILEN BLUE IN VASOPLEGIC SYNDROME AFTER CARDIAC SURGERY

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Background: In spite of the quality in the equipments for cardiac surgery, is still frequently the systemic complications after cardiopulmonary bypass, calls: syndrome post pump. In this way we see the vasoplegic syndrome (VS), that is showed with low blood pressure, high cardiac index (CI), low pulmonary artery cocclusion pressure (PAOP) and mainly low systemic vascular resistance index (SVRI).

Objetives: We will analyse the use for methilene blue (MB) in restoration for SVRI in patients with VS after cardiac surgery with and without cardiopulmonary bypass.

Methods: We studied 19 patients after cardiac surgery, with and without cardiopulmonary bypass who developed: tachycardia, oliguru, good peripheral perfusion and important systemic arterial hypotension (mean arterial pressure to 52 mmHg) not responsible to high doses of catecholamines infusion, the p were monitored through pulmonary arterial catheter with carachetistic the VS: with SVRI average to 933 dyne.sec.cm5. Symilar to the endotoxic syndrom, this situation is caused by nitric oxide synthase and release of nitric oxide (NO), by endothelial cells. Once released, NO stimulates soluble guanylate cyclase, and thereby activates the production of cyclic guanosine 3',5' monophosphate (cGMP) resulting ein relation. We used MB to block the NO in guanililcicase/guanino-monofostato cyclase system. We used in average 2.1 mg/Kg during one intravenous infusion.

Results: We reached the systemic vascular tone restoration, with the increase of SVRI to 1515 dyne.se.cm5 (P=.0003), increase of blood pressure to 86 mmHg (P=.0001) and decrease of dosage to norephinefrine (P= NS) and improving clinical performance to the patients.

Conclusion: The results suggest that the MB is a important drug in treatment of VS after cardiac surgery.

0040 FREE FATTY ACIDS IN SEPTIC SHOCK PATIENTSSB Cappi¹, AC Nogueira¹, FG Soriano¹, PA Lotufo¹¹ Hospital Universitario da USP, Sao Paulo/SP, Brazil; ² Hospital das Clinicas da Faculdade de Medicina da USP, Sao Paulo/SP, Brazil

Background: In the last five years, much has been published about metabolic changes in intensive care unit. The strict glycemic control diminished mortality in a general intensive care unit, even in a subgroup of septic patients. More recently, the subanalysis of the same database showed different lipid profile between survivors and non-survivors in respect to Cholesterol fractions.

Objective: According to these findings, we intended to analyze the free-fatty acid profile in septic shock patients in an university intensive care unit.

Methods: We designed an observational prospective study, including all septic shock patients admitted to our 12-bed medico-surgical intensive care unit between December 2002 and March 2003. We collected blood samples at entrance, at days 3, 6, 9, 12 or until discharge or death to analyze serum free fatty acids and C-reactive protein. Sequential capilar glycemia was assessed. We recorded cultures data for posterior analysis. For statistical analysis we used student-t test and a $p < .05$ were used to statistical significance.

Results: Eighteen consecutive septic shock patients were analyzed. For statistical analysis, we divided them in survivors (10 patients) and non-survivors (8 patients). There were no statistical differences between the groups in respect to Apache II scores, age, sex and catecholamine dosage needed. Positive cultures and microorganisms were similar in both groups. Capilar glycemia was significantly lower in the survivor group ($p < .005$), and CRP was significantly higher in the non-survivor group ($p < .005$). For free fatty acid we only find significant statistical difference for linolenic acid and linoleic acid ($p < .05$). Other free-fatty acids were similar in both groups.

Conclusion: Despite the low number of patients enrolled we achieved significant statistical difference for mean capilar glycemia, CRP and linolenic acid and linoleic acid between septic shock patients' survivors and non-survivors. Larger studies should be done to evaluate the role of certain kinds of free fatty acids and its relation to inflammatory process.

0042 THE CURRENT STATUS OF FAMILY BEREAVEMENT PROGRAMS IN AUSTRALIAN INTENSIVE CARE UNITSML Mitchell¹, K Valks², C Inglis-Simons²¹ Griffith University; ² Princess Alexandra Hospital

Objectives: The aim of the study was to identify the prevalence and type of bereavement services offered to families of critically ill patients in Australian Intensive Care Units.

Methods

Nurse unit managers from adult Intensive Care Units throughout Australia were contacted by telephone and invited to participate. A twenty-item survey was mailed to them to complete. Returned survey data were entered into Statistical Package for Social Sciences for collation of descriptive statistics. Open-ended questions were transcribed in full and coded by searching for similarities and differences.

Results

One hundred and seventeen Intensive Care Units were contacted and 99 completed questionnaires. Most units offer fundamental components of bereavement programs such as viewing of the deceased and communicating with family members. Less than one third ($n=26$) provide additional follow-up services. Program evaluation is primarily achieved through verbal feedback from staff and families with only two units using a formal evaluation of families about their program. Over half of the respondents indicated they are considering or interested in providing a bereavement program.

Conclusions

This study highlights the need for research-based data to support interventions for bereavement programs using family-centred outcome measures. Importantly, current bereavement programs need a more rigorous method of evaluation. Intensive Care nurses are interested in this area of clinical practice and require considerable support. It is recommended that this support occurs through postgraduate and on-going education, hospital policies and procedures.

0043 IMPROVING TRANSFER FROM INTENSIVE CARE FOR FAMILIES AND NURSES BY USING A STRUCTURED INDIVIDUALIZED FORMAT

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Background: The intervention study examined the efficacy of a structured individualised method of patient transfer from Intensive Care to general wards from the perspective of families and Intensive Care Unit nurses. A specifically designed brochure provided nurses with key points to discuss with families whose relative was for transfer.

Methods: A mixed method design was used. The researcher purposively allocated family members to a control ($n=80$) and intervention group ($n=82$). The intervention group experienced a structured individualised transfer method whereas the control group received existing ad hoc transfer methods. Families were surveyed after transfer with a ten-item questionnaire. Intensive Care Unit nurses were also surveyed on their perceptions of the usefulness of the structured transfer brochure.

Results: Those family members who experienced the formal transfer reported significantly higher levels of satisfaction with the information given to them before transfer from Intensive Care than did the control group ($p = .015$). The intervention group also recorded significantly higher scores when their level of understanding of information was evaluated ($p = .002$) and they felt significantly more prepared for transfer than those in the control group ($p < .001$).

The Intensive Care Unit nurses ($n=33$) considered that the structured intervention assisted them by supporting and directing their discussion about patient transfer with family members. 95% of respondents indicated it provided a useful framework for them to use and recommended its introduction for all patient transfers from Intensive Care.

Conclusions: This study supports the introduction of a two-tiered approach to sharing information with family members prior to transfer. The face-to-face communication and individualised brochure for the family contributed significantly to families' satisfaction, preparation and communication about patient transfer and is thus recommended. The Intensive Care Unit nurses felt supported by the brochure in their role of transferring patients and recommend its introduction for all patient transfers.

0045 POTENTIAL ROLE OF POLY (ADP-RIBOSE) ACTIVATION IN THE PATHOGENESIS OF MYOCARDIAL CONTRACTILE DYSFUNCTION ASSOCIATED WITH HUMAN SEPTIC SHOCK

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Objective: To study whether cardiodepression found in septic patients is associated with plasma markers of myocardial necrosis and with myocardial PARP activation. Sepsis is associated with increased production of superoxide and nitric oxide (NO) with consequent peroxynitrite (ONOO-) generation. Cardiodepression is induced in the heart during oxidative stress associated with septic shock. Oxidative and nitrosative stress can lead to activation of the nuclear enzyme poly (ADP-ribose) polymerase (PARP), with subsequent loss of myocardial contractile function.

Methods: We assigned 25 patients presenting severe sepsis or septic shock. They were followed by 28 days; data were collected and analyzed a posteriori separating in two groups: survivors and non-survivors.

Results: It was studied the function of hearts in septic patients and correlated to dead patients with PARP activation. The study population included 25 individuals, of whom 12 died during the follow-up period of 6 days. The initial data of inflammation marker C-reactive protein (CRP) and APACHE severity were similar in both groups. Overall, an increase in plasma troponin level was related to increased mortality risk. Patients that died presented heart dysfunction, and histological analysis of heart showed inflammatory infiltration, increased collagen in interstitium, and derangement of mitochondrial cristae. Immunohistochemical staining for poly (ADP-ribose) (PAR), the product of activated PARP was demonstrated in septic hearts. There was a positive correlation between PAR staining score and troponin I ($r^2 = 0,81$); and a correlation of PAR staining score and LVSSW ($r^2 = 0,61$).

Conclusion: Septic patients with impaired cardiac function demonstrate inflammatory alterations and PARP activation. We hypothesize that PARP activation may be, in part responsible for the cardiac depression seen in severe septic patients.

0046 ERYTHROPOIETIN IMPROVES SKELETAL MICROCIRCULATION AND TISSUE OXYGENATION IN SEPTIC MICE

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Background/Objectives: The inflammatory response in sepsis leads to multiple organ failure that can result in death. The relationship between oxygen delivery (DO₂) and consumption (VO₂) in sepsis are impaired suggestive of defects in microcirculatory perfusion. Decreases in both capillary perfusion and blood flow to skeletal muscle and the small bowel mucosa been observed in both endotoxin and focal models of sepsis. Rh-EPO has significant cardiovascular effects, such as direct vasopressor effect, which may help to restore vascular perfusion and oxygen delivery. This study tested the hypothesis that rh-EPO can improve skeletal muscle capillary perfusion and tissue oxygenation in a mouse model of severe sepsis. We used intra-vital microscopy to measure capillary perfusion and NADH fluorescence. **Methods:** Mice received general anaesthesia with ketamine: xylazine 200:10mg/kg intra-peritoneal. Sepsis was induced by cecal ligation and perforation in 8 mice (CLP+EPO group). Buprenorphine 0.1mg/kg in 1ml normal saline subcutaneously (sc.) was injected after surgery and every 8 hours for analgesia and fluid resuscitation. Control mice (n=7) received the same amount of buprenorphine and saline. Eighteen hours after sepsis induction or control procedure, under general anaesthesia, the extensor digitorum longus (EDL) muscle was exposed by gentle dissection and prepared for intra-vital microscopy. After 45 minutes stabilization on the microscope, baseline images of capillary perfusion and NADH fluorescence were recorded. Mice then received rh-EPO 400 units/kg (sc) and images then were recorded every 10 minutes for 40 minutes. Images were analyzed offline. Perfused capillary density was determined from the average number of capillaries with red blood cell flow crossing three lines equidistant apart on the monitor during a 3-minute observation period. NADH fluorescence gray level was measured and expressed relative to the fluorescence of a standard NADH solution. **Results:** CLP caused a significant decrease in perfused capillary density compared to the control group (28.5 vs 36.6 capillaries/mm, $p < 0.001$). Treatment with rh-EPO resulted in a significant increase in perfused capillaries in the CLP group at all time points compared to baseline (at 40 min: 33.6 vs 28.5 capillaries/mm, $p < 0.001$). Similarly, baseline NADH was increased significantly in the CLP compared to the control group (48.3 vs 43.9 fluorescence units, $p = 0.03$) and improved with rh-EPO (at 40 min: 44.4 vs 48.3 fluorescence units, $p = 0.02$). **Conclusion:** Rh-EPO acutely increases skeletal muscle capillary perfusion and improves tissue oxygenation in this model of sepsis.

0048 AN EVALUATION OF THE CARE GIVING PRACTICES AND EXPERIENCES OF STAFF MEMBERS ACROSS DIFFERENT DISCIPLINES IN A PEDIATRIC INTENSIVE CARE UNIT

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Objective: To evaluate the care giving practices of health care practitioners in the Paediatric Intensive Care Unit (PICU) by exploring specific roles, relationships and dynamics within and across different disciplines. Care-giving features in recent discussion in the field of critical care. This study provides a qualitative insight into caregiving of staff members through their own insights, reflections and experiences in Participatory Action Research.

Setting: PICU at the Red Cross War Memorial Children's Hospital, Cape Town, South Africa.

Methods: Qualitative research in the form of Participatory Action Research strategies was used to describe the range of caregiving practices and experiences of PICU staff members. Data was gathered from three sources: focus groups within disciplines, observations within the PICU environment, and semi-structured interviews. Discipline groups included the consultants, the allied health professions and all levels of nursing staff. All staff members were equal participants and stakeholders in the decision-making process.

Results: The data analysis established a summative critical statement that there were problematic levels of dysfunction in the PICU that place patients and staff at risk. This statement was presented to the whole of the unit with supporting evidence that was derived from triangulation methodology using the transcripts from the focus groups, interviews and observation sessions. All staff members completed a feedback form following the presentation of the research results, and were asked to evaluate the validity of the evidence statements. 81% of the unit agreed with the summative critical statement. There was consensus in over 82% of the unit that themes relating to relationships, decisions and trust were dysfunctional. The only theme less validated related to the quality of patient care in end-of-life decisions where 53% felt this was of concern.

Conclusions: The study qualitatively describes problematic issues in terms of behaviours, attitudes and perspectives in the clinical and psychosocial domains that are compromising effective teamwork. The intervention of an 'outsider' research team facilitated the deconstruction of current roles and positions within the unit. The research instigated transparency around discord and started a process of awareness and transformation, which will require ongoing leadership commitment. The focus on all staff members as equal and active participants supports the position that a team should remain intact and that disagreements should be resolved by negotiation rather than by an outright appeal to professional authority. Examining current standards of practice that are problematic, the unit can make informed decisions about how to move towards improved communication and power relations. Finally, it was the explicit intention of this research project to establish a dynamic and innovative model that can be evaluated and replicated in other clinical units and organisations.

0049

DAILY EVALUATION PROFILE OF INVASIVE MECHANICAL VENTILATION IN A SURGICAL ICU

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Background: mechanical ventilation is the mainstay therapy for patients with respiratory failure and the comonest kind of artificial life support applied in the ICU. Knowledge of how it is employed is important to improve quality of care to critically ill patients.

Objectives: to describe how mechanical ventilation is employed in a surgical ICU of a tertiary care hospital, followed by a daily basis evaluation.

Patients and Methods: It was a prospective observational study including all invasive mechanically ventilated patients consecutively admitted in the surgical ICU from May 1st to November 30th 2004 recording the following data: demographics, cardiac function by echocardiography, ventilator indications, artificial airway, ventilator modes and settings, oxygenation, level of sedation, water balance, hemoglobin concentration, extubation profile, incidence of tracheostomy, incidence of barotrauma and ventilator associated pneumoniae (VAP). Results are expressed as median and mean \pm standard deviation.

Results: 100 patients were included with 844 daily evaluations. 59 men and 41 women, median age was 66.5 years (± 18.9), mean actual body weight: 73.3Kg (± 15.3), indication of mechanical ventilation was grouped as follows: postoperative: 48%, trauma: 13%, neurological: 11%, ARDS/ALI: 9%, COPD: 7%, others (shock states, post cardiorespiratory arrest): 12%, the mean APACHE II score on admission to the ICU: 15.4 (± 5.9), 82% of the patients presented normal left ventricular function by echocardiography, the global mean water balance was +852ml (± 854), the mean sedation time used was 8 days resulting a mean Ramsay score of 4, the median ICU stay was 10,9 days ($\pm 11,6$), the median duration of mechanical ventilation was 8 days. The predominant artificial airway in the beginning of ventilatory support was endotracheal tube (95%). The frequency of ventilatory modes used was: Bilevel 0,1%, Bilevel+PSV: 1,4%, VCV: 1,5%, VVS: 2,1%, PCV: 3,2%, PRVC: 38,2%, CPAP+PSV: 53,4%, the mean tidal volume per Kg of weight was 6,6ml, median PEEP: 7,9cmH₂O ($\pm 2,3$), median plateau pressure: 20,8 ($\pm 4,3$), median peak inspiratory pressure: 22,1 ($\pm 4,9$), median PaO₂/FiO₂ ratio: 260,9 ($\pm 61,2$). Recruitment maneuver was performed in 55,5% of patients presenting ARDS/ALI. The global median hemoglobin concentration was 9,9g% ($\pm 1,4$). Extubation failure occurred in 13 patients (13%), and 4 of them were successfully extubated thereafter. Tracheostomy was performed in 23% of patients with a median time from intubation of 8,5 days. VAP was diagnosed in 20% of patients with a mean time from intubation of 9 days. Barotrauma occurred in 2% of patients. 16% of the patients followed, died.

Conclusions: the demographic data are similar with that reported in the literature. The most used ventilatory mode was spontaneous. The ventilator settings were in accordance with literature recommendations. Tracheostomy was performed based on patients underlying condition and anticipated evolution. VAP occurred late after intubation. The sedation protocol must be revisited.

0050

KNOWLEDGE OF THE NURSING PROFESSIONALS CONCERNING THE ATTENDANCE TO THE CHILDREN WITH STOPPED CARDIO-RESPIRATORY

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Background: In pediatrics, the event of a cardio-respiratory stop normally occurs as resulted of the acute respiratory insufficiency and/or cardiovascular shock. The recognition of the basic cause can contribute in the immediate therapeutically decisions, diminishing the risk of complications for measures, to the times, unnecessary. In situation of cardio-respiratory stop the team must act fast and correctly to recoup the child, being priority the identification of the problems and the precocious intervention with a qualified assistance, providing an efficient treatment. The assistance of nursing systemize for the nurse in the cardio-respiratory stop reduces stress of the team, better rationalizes the time of the cares, gets greater participation of the nursing team and prevents material wastefulness. Objective: to evaluate the knowledge of the team of nursing concerning the assistance to the child in situation of cardio-respiratory stop. Methods: it is a quantitative; explore study, which used a composed questionnaire for 12 structuralized questions and 2 half-structuralized that it approached the knowledge of the nursing team, front to the attendance of cases of cardio-respiratory stop in children. The sample was composed for 28 individuals that if had fit to the definite criteria and if they had made use to answer. Results: when analyzing the answers we got that the nurse aid had made right 49.44% of the questions, what means the half of the questions; the nursing technician that they had presented a superior knowledge of the excessively professional ones of the sector, them had made right 74.07% of the questions; while that the nurses had made right 62.22% of the questions. When relating the answers of all professionals of nursing we find 54.39% of rightness, little more of the half of the questions. The subjects with more assertive answers in the cardio-respiratory stop in children had been: signals and symptoms, after diagnostic immediate behavior, material resources, managed medicines, relevance of the registers of the nursing notations and ways of administration of medicines. The subjects with errs answers in the cardio-respiratory stop in children had been: corporal position to carry through the external thorax compression, positioning of the hands for accomplishment of the thorax compression and purpose of the drugs. These results indicate that it has necessity of the accomplishment of an improvement to prevent complications due the lack of specific knowledge for this attendance. Conclusions: The data gotten in this research in allow them to conclude that most 71.43% of the professionals is nurse aid and the nursing team made right the majority of the referring questions to the cardio-respiratory stop in children. One becomes essential that the hospital invests in the team and organizes a program of qualification and update in emergency so that the nursing professionals can be always prepared to give assistance to the cardio-respiratory stop in children, contributing of efficient form for its reestablishment.

0051

INTENSIVE CARE MEDICINE CONTINUING EDUCATION AMONG MEDICAL STUDENTS: THE SOCIETY'S RESPONSIBILITY

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Background: Medical students should be able to identify patients at risk of life-threatening illness and start simple therapy interventions, monitoring and decisions to avoid progressive clinical deterioration. Medical schools in Brazil do not have a special discipline on intensive care medicine during graduation and usually different specialists provide the educational lectures. The society of intensive care medicine of Rio de Janeiro (RJ), through its scientific department, organized a teaching program for medical students to start information and continuing education on intensive care medicine.

Objectives: To develop ability for early identification of critical diseases, understand the physiopathology of complications, promote training on monitoring, become familiar with critical care unit technologies and consider the psychosocial needs and ethical aspects.

Methods: The target is medical student between 8th and 12th period of medical course. Voluntary intensive care physicians leaders from different ICU of RJ compose the course's board teachers. It is a 64 hours theoretical course divided in 8 months (two days each month). The content comprehend the mainly aspects of intensive care problems and is given in form of lectures; small groups discussions, focusing on real problems. Some ICU offered practical training, under supervision, after the course. The requirements for successful completion is passing grades $> 7,0$ (post-test) and satisfactory performance on ICU practical training.

Results: 80 medical students from all state completed the theoretical part of the course. 60 are now selected for continuing practical training. Satisfaction index was high among the participants. The majority recognized the importance of this knowledge independent of the medical field they will choose. Some showed interested on becoming an intensivist. The ICU's directors who offered practical training are very confident with the previous selection.

Conclusion: A new pilot initiative from the society of intensive care medicine providing continuing education among medical students. The model will be reproduced by others regional societies from Brazil.



0052 EVALUATING ANAEROBIC METABOLISM USING THE VENO-ARTERIAL CO₂ DIFFERENCE AND THE ARTERIO-VEINOUS O₂ CONTENT DIFFERENCE RATIO IN CRITICALLY ILL PATIENTS

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Background / Objective: The veno-arterial CO₂ difference and the arterio-venous O₂ content difference ratio ($\Delta\text{PCO}_2/\text{C(a-v)}\text{O}_2$) is a surrogate marker of inadequate oxygen delivery to the tissues. We sought to evaluate the ability of the $\Delta\text{PCO}_2/\text{C(a-v)}\text{O}_2$ to detect cellular hypoxia and anaerobic metabolism, evaluated by the blood lactate / pyruvate (L/P) ratio in critically ill patients.

Methods: Serial hemodynamic measurements, including arterial and mixed-venous blood samples and blood samples for lactate and pyruvate measurements, were obtained in 36 patients during the first 24 h of vasopressor therapy for septic (n=24) or cardiogenic (n=12) shock. Twenty-nine patients who had a pulmonary artery catheter in the first 12 hours of treatment (T0) and survived up to 12-24 hours (T1) were followed. $\Delta\text{PCO}_2/\text{C(a-v)}\text{O}_2$ was calculated as: $(\text{PvCO}_2 - \text{PaCO}_2) / \{1.34 \times [\text{Hb g/dL}] \times (\text{SaO}_2 - \text{SvO}_2)\}$.

Results: The relationship between $\Delta\text{PCO}_2/\text{C(a-v)}\text{O}_2$ and the L/P ratio was very poor in the initial phases of treatment (T0 r=0.00) but increased after 12 to 24 hours (T1 r=0.39; p=0.038) and during treatment (T0-T1 r=0.50; p=0.005). A $\Delta\text{PCO}_2/\text{C(a-v)}\text{O}_2$ of 1.4 was the most sensitive and specific to predict a L/P ratio > 20, having a sensitivity of 66.7% and a specificity of 57.1%, with an area under the ROC curve of 0.72 (p=0.007). During the first 24h, statistically significant correlations to the $\Delta\text{PCO}_2/\text{C(a-v)}\text{O}_2$ were, in descending order of significance: arterial pH (r -0.45; p=0.005), oxygen consumption (r -0.36; p=0.029) and L/P ratio (r -0.35; p=0.037). Lactate alone did not reach statistical significance (r -0.31; p=0.067). As expected, the L/P ratio was better correlated with lactate in cardiogenic shock (r -0.45; p=0.005) than in septic shock (r -0.36; p=0.029). The $\Delta\text{PCO}_2/\text{C(a-v)}\text{O}_2$ and the L/P ratio were poor outcome predictors (area under the ROC curve: 0.53 and 0.61 respectively, p>0.2), whereas lactate performed much better (area under the ROC curve: 0.85; p<0.0001).

Conclusions: The $\Delta\text{PCO}_2/\text{C(a-v)}\text{O}_2$ correlated well with the L/P ratio, a marker of anaerobic metabolism, after 12h of shock treatment and during its evolution. However, its prognostic value, as well as that of the L/P ratio, is not better than lactate alone. The $\Delta\text{PCO}_2/\text{C(a-v)}\text{O}_2$ may be useful in the assessment of circulatory shock.

0053 NON INVASIVE MECHANICAL VENTILATION PROFILE IN A GENERAL INTENSIVE CARE UNIT (ICU)

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INTRODUCTION: Non invasive mechanical ventilation (NIMV) has been used early in acute respiratory failure (ARF) to prevent tracheal intubation and invasive mechanical ventilation and it is also sometimes used during weaning from mechanical ventilation. However, its general clinical use is not yet well established.

BACKGROUND: To evaluate the use of NIMV in ARF in a general ICU.

METHODS: Prospective cohort study from March 15th to September 15th 2004. All patients with ARF in NIMV were analysed concerning clinical characteristics, causes of respiratory failure, indications of NIMV, gasometric and ventilatory parameters, rate of success of NIMV use (patients without necessity to return to mechanical ventilation in 48 hours), associated morbidity and mortality. Patients were divided in two groups: chronic obstructive pulmonary disease (COPD) and non COPD.

RESULTS: 192 patients used mechanical ventilation in this period, being 26 (13.5%) ventilated with NIMV. Mean age was 62 ± 15 years and the APACHE II score was 19.2 ± 6.3. The mean ICU stay period was 24 ± 20 days. From causes of ARF, 16 (61%) patients had COPD associated or not with other diseases: 10 (39%) patients presented pneumonia, pulmonary embolism or cardiac insufficiency without COPD. Indications to NIMV were: post extubation failure (n=16) and a trial to avoid intubation (n=10). 15 patients used continuous positive airway pressure (CPAP), 10 patients used bi-level positive airway pressure (BiPAP) and 1 patient used both methods BiPAP and CPAP. NIMV was used during 3.5 ± 3.0 days. Only one patient presented a nasal dorsum ulceration. The total NIMV success rate was 10/26 (39%). The success rate in COPD patients was smaller (38%) than in non COPD patients (40%), p<0.05. Success with CPAP use was 30% (3/10 patients) and with BiPAP use 44% (7/16 patients), without statistical difference (p>0.05). There was no statistical difference between initial or final gasometric or ventilatory parameters in NIMV patients. Total mortality rate was 50% (13/26), with 37% (6/16) mortality rate in COPD patients and 70% (7/10) in non COPD patients.

CONCLUSIONS: The NIMV profile of patients in our ICU showed a great proportion of men, with COPD. Failure in post extubation was the most frequent indication. BiPAP was the most frequent VMNI method used. Our data showed a success rate of only 39% in NIMV and a high mortality rate (50%) with this method, especially among non COPD patients.

0054 ULTRASOUND-GUIDED PERCUTANEOUS DILATATIONAL VS. SURGICAL TRACHEOTOMY IN PATIENTS WITH ANTERIOR CERVICAL SPINE FIXATION

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Background / Objectives.

The patients with anterior cervical spine fixation (ACSF) after acute cervical spinal cord injury often require tracheostomy for prolonged ventilatory support. Also, during and after withdrawal from respiratory support it is often necessary to reduce the work of breathing and ensure a clean, passable upper respiratory tract. Surgical tracheostomy (ST) is burdened with relatively high incidence of peristomal infections, which present serious additional danger due to close vicinity of surgical skin incision. Recently, as an alternative method to ST we have proposed to use ultrasound-guided percutaneous dilatational tracheostomy (USGPDT) in all such cases [1,2]. The aim of this study was to compare the incidence of peri- and early postoperative complications of ST vs. USGPDT in patients with ACSF.

Methods.

In the prospective, controlled study twenty-nine adult patients (male 25; age: range 18-59 yr.) who underwent tracheostomy 7th or 8th day after acute spinal cord injury and ACSF were analyzed. The patients were randomized in two groups: group A where ST was performed in 15 patients (male 12; age: range 24-59 yr.); group B with 14 patients (male 13; age: range 17-44 yr.) who underwent USGPDT with dilatational forceps (Portex®). The incidence of peri- and early postoperative complications was followed up, as well as the stoma infections and the duration of the procedure. The study was stopped after 29 patients because of statistically significant higher incidence of purulent infection of the stoma in patients from group A.

Results.

Not one patient from both groups had any major perioperative complication of tracheostomy. In group A there were three cases and in group B one case (20% vs. 7%; p = NS) of prolonged bleeding which stopped spontaneously inside 24 hours (minor perioperative complication). In four patients from group A purulent infection of the stoma was verified during subsequent treatment at ICU with the propagation in the site of surgical incision in two cases (major postprocedural complication). There was no case of purulent infection of stoma or other postprocedural complications in the patients from group B (27% vs. 0%; p < 0.05). The average time of ST was 24±7 min; the average time of USGPDT was 9±5 min (p < 0.05).

Conclusion.

Our data demonstrate that USGPDT as regards complications is safer method than ST; it is much quicker method and with less late infections of the stoma, which is particularly important advantage in patients with ACSF.

Reference.

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2. Sustic A, Krstulovic B, Eskinja N, et al. Percutaneous dilatational tracheostomy vs. surgical tracheostomy in patients with anterior cervical spine fixation: preliminary report. Spine 2002;27:1942-5

0055 DOES THE VASOPRESSIN IMPROVE OUTCOME IN OUT-OF-HOSPITAL CARDIOPULMONARY RESUSCITATION OF VENTRICULAR FIBRILLATION AND PULSELESS VENTRICULAR TACHYCARDIA ?

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Background. Survival after CPR with epinephrine therapy is disappointing. Increasing evidence from laboratory and clinical studies suggests that vasopressin may be a promising alternative vasopressor during cardiac arrest and resuscitation. The current international guidelines for CPR recommend the use of epinephrine during CPR, with vasopressin considered only as a secondary alternative, because clinical data on vasopressin therapy have been limited.

Methods. We performed our study in prehospital setting after approval of the Ethical review board of The Ministry of Health. In this prospective retrospective study we compared three different treatment groups group I: patients received only epinephrine 1 mg every 3 minutes; group II: patients received one intravenous dose of vasopressin (40 I.U.) after 3x1 mg epinephrine; group III: patients received vasopressin 40 I.U. as first therapy. If there was no return of pulse after vasopressin, patients received epinephrine 1 mg every 3 minutes during CPR. The criteria for exclusion were successful defibrillation without administration of a vasopressor, an age of less than 18 years, documented terminal illness, traumatic cardiac arrest, severe hypothermia (<30° C), PEA or asystole as initial rhythm at arrival and lack of intravenous access. Statistics: data were expressed as mean ± SD or number (percentages); for comparison we used Student's t-test and Chi square test. The Bonferroni correction was applied for multiple comparison.

Results. Please see table. Our results show a significantly better results for ROSC with hospitalization and 24-hour survival in groups where vasopressin was applied ($p < 0.05$). Respectively more patients (but not significantly) treated with vasopressin were discharged from hospital ($p = 0.21$). There were no significant differences between vasopressin groups.

Conclusion. Better outcomes in vasopressin treated patients suggests indication for combination therapy (vasopressin + epinephrine) in treatment of refractory out-of-hospital VF or pulseless VT.

	Epinephrine only	Vasopressin after epinephrine	Vasopressin initial
Sex (M / F)	29 / 22	17 / 14	15 / 12
Age	61.3± 15.3	59.2± 13.3	60.3± 17.3
Time collapse to CPR (minutes)	6.8± 2.3	7.2± 3.2	6.3± 2.9
Average dose of epinephrine (mg)	6.3± 3.5	4.5± 2.1	3.1± 1.6
ROSC with hospitalization (Y/N)	23 / 28 (45%)	19 / 12 (61%)	17 / 10 (63%)
24 hour survival (Y / N)	15 / 36 (29%)	15 / 16 (48%)	14 / 13 (51%)
Hospital discharge (Y / N)	10 / 41 (20%)	8 / 23 (26%)	7 / 20 (26%)

0056 THE ROLE OF THE INTENSIVE CARE UNIT IN PEDIATRIC ONCOLOGIC PATIENTS: LONG-TERM SURVIVALJ. Cordero, J. Palma, P. Catalan, N. Hernandez, J. Quintana, V. Beresi, A. Blanco
Hospital Luis Calvo Mackenna

BACKGROUND: The increase in the overall survival of children with cancer is the result of more aggressive treatments with combination of radiotherapy and chemotherapy, the improvement of supportive care and admission to ICU of critical patients.

OBJECTIVES: To evaluate the long-term survival of the oncologic patients admitted to ICU, determine the cause of early death and compare the overall survival in relation to the cause of admission.

METHODS: All oncologic patients admitted to the PICU (Pediatric Intensive Care Unit) of our hospital between January 1994 and December 1995 were retrospectively included. Patients were classified according to medical (systemic infections, respiratory failure, metabolic disorders) or surgical (metastatic diseases, CNS and abdominal tumors, amputations) causes of admission. Overall survival, early mortality (first 2 weeks) and causes of death of each group were analyzed. Overall survival of medical and surgical groups was calculated by Kaplan-Meier's method and difference between curves by log-rank test. The follow-up period was 10 years (1994-2004).

RESULTS: 38 patients were eligible. Mean age was 6 years (7 months-16 years). In 19 patients the cause of admission was a medical reason (M) and in 19 a surgical (S) one. The mean time of stay was 4.8 days (12 hours to 13 days). Mean interval between oncologic diagnosis and PICU admission was: 8.3 months (5 days-2 years) for M and 5.4 months (1 day-2 years) for S. The early mortality in M group was 52.6 % versus 0% in S group ($p < 0.01$). Septic shock was the cause of death in 80% of the cases (12.5% with identified agent). The survival for the whole group after 10 years of follow-up was 23.6%, being 10.5% for M and 36.8% for S ($p < 0.01$). For the patients discharged alive from PICU, the overall survival was 32.1% (22.2% for M and 36.8% for S) ($p = 0.26$). For this group (ICU survivors) the long-term cause of death was oncologic relapse: 5/6 for M, 9/10 for S.

CONCLUSIONS: The pediatric oncologic patients clearly benefit from admission to PICU. Septic shock was the early mortality cause in M group and the cause of death of ICU survivors was cancer progression and its complications. The survival was higher in surgical patients. Excluding early mortality, M and S survival were similar. We believe that mortality can be lessened with early admission and adequate management in PICU.

0057 PRESSURE CONTROLLED VENTILATION INDUCES LESS LUNG INJURY COMPARED WITH VOLUME CONTROLLED VENTILATION IN HEALTHY DOGSD. Dragosavac¹, MF Vendictio², PRG Barros², PF Peres², HP Jorge²¹ Faculty of Medicine, UNICAMP, Campinas, Brazil; ² Veterinary Faculty, UNOESTE, Presidente Prudente, Brazil

Background: It has been suggested that pressure controlled ventilation may be superior than the volume controlled ventilation.

Objectives: Comparison of the volume controlled ventilation (VCV) and pressure controlled ventilation (PCV) in healthy dogs.

Methods: Twenty healthy dogs, weight 8 to 10 kg, 6 to 8 years old, were randomized in two groups of ten animals each. The VCV group was ventilated by tidal volume of 10 ml/kg, respiratory frequency 30 rpm, positive end expiratory pressure 5 cm H₂O, flow 40 l/min and inspiratory fraction of oxygen 21%. PCV group was ventilated by the same ventilatory parameters as VCV group, except the flow, which was free and pressure which was adapted to maintain tidal volume of 10ml/kg.

The dogs were sedated, relaxed, intubated and ventilated by ventilator Savina Dräger®, for 7 hours. The Swan-Ganz catheter was introduced for hemodynamic monitoring and COSMOplus Dital® for respiratory monitoring. Three samples of gasometries of arterial and mixed venous blood were done for hemodynamic and respiratory study. At the end of the study, the dogs were weaning from mechanical ventilation.

Results: There was no difference in the oxygenation between the groups ($p=0.25$). Arterial partial pressure of the CO₂ was lower in PCV group with higher level of expiratory CO₂ ($p=0.014$ and $p=0.012$, respectively). The alveolar ventilation and the static compliance showed higher values for the PCV group, $p=0.0001$ and $p=0.016$, respectively. The cardiac index and pulmonary capillary pressure were higher in the VCV group ($p=0.0001$ and $p=0.007$, respectively). The systemic vascular resistance presented lower values for the VCV group when compared to the PCV group ($p=0.0001$), but the pulmonary vascular resistance showed higher values for the VCV group ($p=0.01$). The weaning time was longer for the VCV group ($p=0.0001$) and surprisingly, five dogs from the VCV group died within two hours after extubation. The study was repeated with five dogs for each group. The dogs were sacrificed seven hours after mechanical ventilation and their lungs were submitted to anatomopathological analysis. The macroscopic and microscopic evaluation showed much more lung injury induced by mechanical ventilation in volume controlled ventilation group.

Conclusions: The pressure controlled ventilation caused better alveolar ventilation and lung compliance, but higher cardiac depression. The volume controlled ventilation needed more time for weaning and caused more lung lesion induced by mechanical ventilation in healthy dogs. Kind of flow is probably responsible for these differences.

0058 SYNDROMES RELATED TO SODIUM AND ARGININE VASOPRESSIN ALTERATIONS IN POST-OPERATIVE NEUROSURGERY

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Background: Alterations in sodium are frequently found in postoperative neurosurgery and can be explained by three different syndromes: Cerebral Salt Wasting Syndrome (CSWS), Syndrome of Inappropriate Antidiuretic Hormone Secretion (SIADH) and *Diabetes Insipidus* (DI), all of which are associated with deterioration in the neurological state of patients and need different therapeutical approach.

Objective: To identify the syndromes related to sodium alterations following surgery for tumor resection and cerebral aneurism clipping.

Methods: Thirty adult patients, 19 submitted to tumor resection and 11 submitted to cerebral aneurism clipping, were included in prospective, observational study, during the first five days following surgery. Sodium level and osmolarity in serum and urine (12-hour urine) and urine volume were measured daily and plasma arginine vasopressin (AVP) was measured on the first, third and fifth days post-surgery (normal value 0,5-5 pg/ml). Cerebral salt wasting syndrome (CSWS) was defined when patient presented: polyuria (>1050ml/12h), serum hipoosmolarity (<275 mOsm/L), urine hiperosmolarity

(>900mOsm/L), serum hiponatremia (Na<135mEq/L) e natriuria (Na>220 mEq in 24 hours), with normal serum arginine vasopressin level. Syndrome of inappropriate antidiuretic hormone secretion (SIADH) was defined with: hiponatremia, high serum level of arginine vasopressin (>5 pg/ml), serum hipoosmolarity, hipervolemia and normal or decreased urine level. *Diabetes insipidus* was defined when there were: polyuria, low serum level of the arginine vasopressin (<0,5 pg/ml), serum hipernatremia (Na>145mEq/L) e hiperosmolarity (>295 mOsm/L) and urine hipoosmolarity (<300 mOsm/L).

Results: CSWS was found in 27/30 patients (90%), in 14 (46.7%) of whom it was associated with a reduction in the levels of plasma AVP, referred to as a mixed syndrome. *Diabetes insipidus* was not found as isolated syndrome. SIADH was found in 3/30 patients (10%). There was no difference between patients who had been operated for tumor resection and those who had undergone cerebral aneurism clipping in terms of the occurrence of these syndromes.

Conclusions: CSWS was the most common syndrome found, and in half the cases, it was associated with DI. SIADH was the least frequent syndrome found. Diabetes insipidus was not found as isolated syndrome. Plasma measurement of AVP may be useful in achieving a differential diagnosis between salt wasting syndrome, syndrome of inappropriate secretion of antidiuretic hormone and *diabetes insipidus*.

0059 HONG KONG PUBLIC AWARENESS OF CORONARY HEART DISEASE

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Background/Objectives:

Coronary heart disease (CHD) has been a major cause of death and disability. The World Health Organisation reports that risk factors of CHD causes millions of deaths per year, 75% of deaths was related to cardiovascular disease. In Hong Kong, CHD is the second leading cause of death since the 1960s. Reduction of CHD risks, prevention of the disease and promoting health are viewed as global concerning issues. While much is known about lay public's perspectives about CHD among the western cultures, there remains a paucity of knowledge about CHD from the perspective of the Chinese people.

Methods:

A descriptive qualitative research design was used to explore Hong Kong Chinese public understanding of CHD using tape-recorded focus group interviews. Twelve focus group interviews were conducted consisting of a total of 84 participants. All interviewees were tape recorded lasting from 60 to 90 minutes. All interviews were transcribed verbatim and content analysis was used to analyse the data.

Results:

A number of key categories about CHD were identified. These included misconceptions of CHD as a disease of the blood vessel, varying descriptions and representations of CHD symptom, CHD as an age-related and gender-related disease, inappropriate lifestyle, and CHD as a disease of lesser concern compared to severe acute respiratory syndrome or cancer.

Conclusions:

Despite differences in people's understanding about CHD, the results highlighted that great efforts in targeting measures based on various levels of people's understanding about CHD remain important. As coronary heart disease requires an individual to adhere to preventive advice and lifestyle changes, the individual understanding of CHD is central and should be closely examined.

0061 PULMONARY GRAPHICS MONITORING OF VENTILATED NEWBORN INFANTS

E Tawfik
 SAFAA EL MENEZA, NAS TAWFIK and AMEL GABER

Pulmonary graphic monitoring is increasingly one of the most important practices that proved to improve the outcome of the neonates admitted to the NICU.

Objectives: Provide useful clinical information regarding elastic and restrictive loads, and help to elucidate the pathophysiology of pulmonary mechanics and prevent known ventilator's complications, such as air leak, or venous return impediment.

Methods: A total of 69 newborn infants were included. They were divided into two main groups: restrictive and obstructive. All cases were subjected to full history recording and clinical evaluation. Pulmonary graphics monitoring flow pressure loops, pressure volume loops, flow volume loops and curves were measured. Measurement of tidal volume, minute volume, and ETT leakage was also done.

Results: There were more significant decreases in dynamic compliance among the restrictive group than in the obstructive group, P = 0.036 as well as vte P = 0.01. Mv was not significantly lowered P = 0.09. Ventilatory settings were not different between the two groups. Preterm infants had significant lower dynamic compliance. The F/V loop abnormalities were found in 82.14 % in the restrictive group and 100% in the obstructive group. There was significant increase in the both (inspiratory and expiratory) resistance among restrictive group than inspiratory or expiratory form. Chi square = 6.9, P = 0.04.

Conclusions: PGM is a safe, informative guide for diagnosis and response to treatment whether assisted ventilation or medication, the pressure wave showed valuable information regarding ETT leak and PEEP loss. The wave volume is important for weaning decision and diagnosis of resistance, turbulences, air trapping, base line drift, pressure/volume loop aids for estimating the initial pulmonary compliance. Flow/volume loop gives information regarding air way resistance, it helps distinguishing between expiratory and inspiratory resistance. It is also a guide for suction when turbulences are shown.

0062

COMPARISON BETWEEN STATIC AND DYNAMIC BEHAVIOR OF CEREBRAL AUTOREGULATION IN SEVERE HEAD INJURY PATIENTS. A TRANSCRANIAL DOPPLER STUDYC Puppo¹, L López¹, E Caragna², A Biestro¹¹ Centro de Tratamiento Intensivo, Hospital de Clínicas, Universidad de la República, Montevideo, Uruguay; ² Unidad Neurocrítica, IMPASA, Montevideo, Uruguay

Background: Cerebral Autoregulation (CA) can be evaluated by relative changes of cerebral blood flow (CBF) in response to slow, sustained changes (static) or fast, short changes (dynamic) in systemic blood pressure. **Objectives:** To compare dynamic CA (d-CA) studied during one minute, with static CA (s-CA), in severe head injury patients (GCS \leq 8). **Patients and Methods:** 12 severe head injured patients admitted to our ICU were studied between days 2 and 8. **Dynamic CA:** Two thigh blood pressure cuffs were suddenly released after being inflated and maintained during three minutes above systolic blood pressure. A fast, short lasting and self-limited systemic arterial pressure drop was achieved. **Static CA:** blood pressure was slowly and steadily elevated, by using systemic vasopressors. **Transcranial Doppler flow velocity (FV), intracranial pressure (ICP), arterial blood pressure (MAP) and cerebral perfusion pressure (CPP)** were continuously recorded during pressure changes. **Estimated cerebrovascular resistance: $eCVR=CPP/FV$. CA evaluation: d-CA:** The simultaneous 60 seconds values of normalized FV and CPP were plotted. If d-CA were completely lost, %FV curve would be just the same as %CPP curve, showing a pressure passive CBF behaviour. An "ideal" d-CA would show a horizontal CBF line, (independence of CBF from CPP changes). Based on these two extreme hypothetical CBF responses, ten different curves of possible CBF behaviour were automatically generated using the real CPP drop. These curves were compared in each point with the real change in %CBF, and the most similar curve was chosen as dynamic index of CA (preserved d-CA \geq 5). **s-CA:** The index $sRoR = \% \Delta eCVR / \% \Delta CPP * 100$ was calculated (preserved CA \geq 60). **Results:** d-CA: preserved in 6/11. s-CA: preserved in 6/11. There was no correlation between d-CA and s-CA. **Conclusions:** CA showed 4 different combinations. A sharp dynamic vasodilator response could turn to be not sustained, and a slow or absent reaction to hypotension (probably due to a pressure drop that overwhelmed compensatory mechanisms by an upward shift of CA lower limit) could show an acceptable value in the steady state.

0063

NEUROLOGICAL COMPLICATIONS IN LIVER TRANSPLANT RECIPIENTS DURING ICU TREATMENTA Spec Marn¹, K Videcnik Balazic², B Kremzar¹¹ University Clinical Centre, Ljubljana, Slovenia; ² General Hospital, Novo Mesto, Slovenia**Introduction**

Neurological complications (NC) in liver transplant recipients has different patterns, ranging from mild to life-threatening forms. The purpose of this study is to present the immediate NC found in our patients.

Patients and methods

We retrospectively evaluated 63 consecutive adult patients following liver transplantation (LTx) between June 1995 (our first LTx) and December 2004 to define the type and frequency NC. Data were obtained from patients charts, including autopsy results when available. All patients were treated with our standard protocol for LTx included immunosuppression (cyclosporin, azathioprine, corticosteroids). The primary diagnosis in patients with NC was primary biliary cirrhosis in 2 patients, 2 alcoholic cirrhosis, 2 HBV-related cirrhosis, 2 fulminant hepatic failure, 1 haemangioendothelioma, 1 cryptogenic cirrhosis, and 1 metabolic disease.

Results

11 (17.46%) patients had NC following LTx. The commonest complications was nonseptic encephalopathy in 4 patients, non-encephalopathic psychosis in 2 patients, septic encephalopathy in 2 patients, fits in 1 patient, central pontine myelinolysis in 1 patient and cerebral infarction in 1 patient. Death was directly related to NC in 3 patients (4.76%). Autopsy results in two patients showed multiple intracerebral abscesses (fungal in origin) and in one patient cerebral oedema without signs of infarction seen on CT scan. All NC were encountered in the first month after LTx, nonseptic encephalopathy, psychosis and fits were presented in the first week.

Conclusion

Most NC occur in our patients early following LTx and are usually reversible in nature. Patients with serious septic encephalopathy and cerebral infarction did not survive.

0064

HONG KONG CHINESE PATIENTS' DECISION-MAKING PROCESS IN SEEKING EARLY TREATMENT FOR CHEST PAINR Kaur¹, V Lopez², DR Thompson²¹ Hong Kong Adventist Hospital; ² The Chinese University of Hong Kong**Background/Objectives:**

Chest pain is a major cause of morbidity and mortality, often indicative of angina or acute myocardial infarction (AMI). The importance of prompt institution of reperfusion therapy has led to public education to reduce time between onset of symptoms and treatment. A review of patients with chest pain showed a medium delay time ranging from two to seven hours. The causes of delay are multidimensional with most research focusing on sociodemographic, healthcare system and situational factors. The objective of this study was to explore the factors that influence Hong Kong Chinese patients' decision-making in seeking early treatment upon the onset of chest pain.

Methods:

A descriptive qualitative study using in-depth tape-recorded interviewing technique was conducted over six months. Purposive sample was employed and included only those participants who met the inclusion criteria: diagnosis of chest pain indicative of AMI or unstable angina; stable 24 hours after admission; ethnic Chinese living in Hong Kong; and over 18 years of age. Data was analysed using content analysis.

Results:

Twenty seven (11 female and 16 male) participants were interviewed. The age ranged from 41 to 82 years (mean = 65, SD = 11). The mean time from the onset of symptoms to triage was 925.52 (SD = 1252.35) minutes for men and 3232.86 (SD = 2839.88) for women. The delay time for the Hong Kong participants was far longer compared to the western population with an average of two to six hours. From the qualitative data, three categories were discerned: (1) becoming aware of the threat; (2) maintaining a sense of normality; and (3) struggling to mobilize resources.

Conclusion:

The findings indicate that Hong Kong Chinese patients delay seeking treatment far more longer than the western counterparts. A variety of decisions were made by patients from the onset of chest pain to seeking help. The findings also indicate that their decisions to seek help were heavily guided by their cultural beliefs and values and a lack of cognitive representation of the symptoms as serious threat, thus prolonging delay.

0065 THE IMPORTANCE OF B-TYPE NATRIURETIC PEPTIDE AND INFLAMMATORY MARKERS LEVELS IN PATIENTS WITH ISCHEMIC CARDIOMYOPATHY UNDERGOING CARDIAC SURGERY: CORRELATION WITH IMMEDIATE OUTCOME

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Background: B-type natriuretic peptide (BNP) and inflammatory markers are implicated in the pathophysiology of ischemic cardiomyopathy (IC) and complications after heart surgery with cardiopulmonary bypass (CPB). The purpose of this study was to assess preoperative and postoperative levels of BNP, interleukin-6 (IL-6), interleukin-8 (IL-8), P-selectin, intercellular adhesion molecule-1 (ICAM-1) and C-reactive protein (CRP) in patients with IC undergoing heart surgery with CPB and investigate their variation and ability to correlate with immediate outcome.

Methods: Sixty-two patients were included, 34 with left ventricular (LV) dysfunction (LV ejection fraction < 0,40) and 28 without. Plasma levels of these markers were determined preoperatively and 6 and 24 hours after CPB.

Results: Preoperative levels were different among patients with LV dysfunction and those without LV dysfunction for BNP (207.5 ± 201.5 pg/ml vs. 30.2 ± 67.1 pg/ml; p<0.001) and ICAM-1 (146.6 ± 62.1 ng/ml vs. 119.2 ± 48.8 ng/ml; p<0.04). For all patients, preoperative BNP levels correlated with longer intensive care unit (ICU) stay (p=0.029), longer ventilator use (p=0.018) and prolonged dobutamine use (p<0.001). Receiver operating characteristic curve demonstrated BNP levels as a predictor of intensive care unit stay > 5 days and of dobutamine use, with areas under the curve of 0.832 e 0.842, respectively. Preoperative levels of ICAM-1 were associated with in-hospital mortality (p=0.042). In the postoperative period, an association between CRP, IL-6 and P-selectin levels and ventilation duration was noted (p=0.013, p=0.006, p=0.001 respectively) and P-selectin and intensive care unit stay (p=0.009).

Conclusions: Preoperative BNP levels were associated with prolonged ICU stay and prolonged dobutamine use; preoperative ICAM-1 levels were associated with in-hospital mortality. These results indicate that these markers could be used as preoperative predictors of evolution and prognosis in this population as well as CRP, IL-6 and P-selectin, in the postoperative period.

0067 THE EFFECTS OF MILRINONE AND DOBUTAMINE UPON BNP LEVELS IN PATIENTS WITH DECOMPENSATED HEART FAILURE

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Background/Objectives: Decompensated heart failure (DHF) is either a consequence of a chronic heart failure or a new-onset heart failure precipitated by an acute incident. Traditionally, DHF has been considered a hemodynamic disease, where cardiac output is insufficient to satisfy the circulatory demands (Lehtonen LA Clin Pharmacokinet 2004; 43: 187). Therefore, inotropic drugs that enhance cardiac contraction and thus increase cardiac output were considered one of the cornerstones of heart failure therapy. Milrinone (a phosphodiesterase inhibitor) and Dobutamine (a synthetic catecholamine) have been shown to improve hemodynamic parameters in patients with failure when administered intravenously. The plasmatic levels of B-type natriuretic peptide (BNP) are correlated with cardiac wall stress and changes in plasma BNP are associated with changes in morbidity and outcomes (Pontes-Arruda A Crit Care Med 2004; 32: A42). The scope of this study is to investigate the changes in the plasma BNP levels in patients with DHF before, 24 hours and 72 hours after the infusion of either Milrinone or Dobutamine has begun. Levels of BNP obtained are also compared with patient's NYHA class.

Methods: Informed consent was obtained in writing to treat 30 critically ill patients, all with NYHA class IV. Milrinone was used in 15 patients as a first choice treatment, on the other hand, Dobutamine was used in the remaining patients. The BNP levels were determined used ELISA method before infusion (T=0), with 24 hours of infusion (T=24) and with 72 hours of infusion (T=72). All results were submitted to ANOVA and p<0.05 was regarded as significant.

Results: The results can be observed in Table 1. All results are mean ± SD.

Conclusions: Our results showed that Milrinone and Dobutamine produces a reduction in BNP levels, confirmed with clinical improvement of patients treated (NYHA class). The BNP reductions obtained with Milrinone treatment showed statistically significant differences from those obtained when Dobutamine was used as a first choice drug (P<0.001). Since changes in the BNP levels are correlated with patient's prognosis (Bettencourt P et al Int J Cardiol 2004; 93: 45), these data should be useful for physicians in order to decide the most appropriate inotropic drug for each patient.

	T=0	T=24	T=72	ANOVA
Milrinone BNP (pg/ml)/NYHA class	535±85/4±0	375±91/3.4±0.2	267±63/2.4±0.5	0.021
Dobutamine BNP (pg/ml)/NYHA class	503±68/4±0	472±80/3.6±0.3	381±56/3.0±0.8	0.048

0069 PERFORMANCE OF PRISM AND PIM2 IN A SINGLE PEDIATRIC INTENSIVE CARE UNIT FROM ARGENTINA

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Background/Objectives: Pediatric Index of Mortality 2 (PIM2) and Pediatric Risk of Mortality (PRISM) are models of mortality probability prediction for pediatric intensive care units (PICU). We aimed to evaluate their performance in a single multidisciplinary PICU from Argentina.

Methods: We prospectively collected all information to obtain the mortality probability prediction for each consecutive patient admitted to our PICU from January 1st to December 31st 2004. We used original equations for both models. Standardized Mortality Ratio (SMR) and 95% CI were calculated for the whole population. Calibration was assessed with Hosmer-Lemeshow (HL) goodness-of-fit tests. Discrimination was assessed with Receiver Operating Characteristic (ROC) curve.

Results: Data from 765 patients were collected over the 12 months period. 53.6% were male, with a median age of 4.1 years (1 month - 22 years) and a median LOS of 2 days (1 - 154 days). 22 patients died in PICU (2.9%). PIM2 showed an expected mortality of 3.3%; SMR of 0.87 (95% CI 0.54-1.21); HL $\chi^2=15.16$ (5 df p=0.01) and Area Under the Curve (AUC) of ROC curve of 0.92 (0.90-0.94). PRISM showed an expected mortality of 5.5%; SMR of 0.50 (95% CI 0.28-0.73); HL $\chi^2=22$ (5 df p=0.0005) and AUC of ROC curve of 0.94 (0.92-0.96).

Conclusions: PIM2 had a better fit than PRISM in a heterogeneous patient population from a single PICU. Although both model discriminated very well, PRISM significantly overestimated mortality.

0070 ASSOCIATION BETWEEN ACUTE RENAL FAILURE AND MORTALITY IN PEDIATRIC INTENSIVE CARE. TEN YEARS OF EXPERIENCE

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Objective: To study the association between Acute Renal Failure (ARF) and mortality in all consecutive patients admitted to the Pediatric Intensive Care Unit (PICU), all patients with shock and all postoperative cardiac patients that required cardiopulmonary by-pass (CBP).

Setting: An 18 bed multidisciplinary PICU from a university general hospital.

Design: Retrospective analysis from a prospective, computerized, active register.

Population: All pediatric patients admitted to the PICU between 1992 and 2002.

Material and Methods: ARF was defined as the presence of oligo-anuria and an abnormal increase in serum creatinine. All types of shock were included in the same group. Only PICU mortality was considered. Patients without ARF were considered a control group. The Relative Risks (RR) and their corresponding 95 % Confidence Interval (95% CI) were used to analyze the association between ARF and mortality. The chi-square test was performed to compare the groups. A p value < 0.05 was considered significant.

Measurements and Main Results: A total of 7052 patients were included. There were 273 (3.8%) patients with ARF with < a median age of 2 years (range 1 month-29 years), 51 male. Renal Replacement Therapies were performed in 172 cases (63 %). The main etiologies of ARF were: shock, 108 patients (40 %); uremic-hemolytic syndrome (HUS), 92 patients (33%) and CBP, 28 patients (10%). The association between mortality and ARF is shown in the table.

	Mortality With ARF (%)	Mortality Without ARF (%)	RR (95 % CI)	p
Global	97/273 (35,5)	320/6459 (4,9)	7,53 (6,21-9,12)	< 0,0001
Shock	68/108 (63)	106/395 (26,8)	2,33 (1,98-2,91)	< 0,0001
CBP	12/28 (42,8)	43/532 (8)	5,30 (3,17-8,87)	< 0,0001

Mortality in the patients with HUS was 5/92 (5, 4%). Since all patients admitted with HUS were in ARF, there was not a control group.

Conclusion: The frequency of ARF in our PICU was 3.8% in ten years. The presence of ARF was associated with an increase in mortality in the whole population and in the groups of patients with shock or after CPB as well. The mortality in patients with HUS was similar to those without ARF.

0071 HIGH VOLUME HEMOFILTRATION IN THE MANAGEMENT OF SEVERE HYPERDYNAMIC SEPTIC SHOCK

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Background Early mortality in septic shock is usually due to refractory hypotension, with progressive acidosis unresponsive to fluids and vasopressor. Among new therapies which could have a role in this setting, high-volume haemofiltration (HVHF) appears to be promising. Experimental and clinical studies cited suggest a beneficial effect of HVHF in severe hyperdynamic septic shock. Nevertheless, the most prevalent condition is hyperdynamic (75% of cases) in which high cardiac output and low systemic vascular resistance are present. There are no studies specifically addressing the effect of HVHF in severe hyperdynamic septic shock.

Objectives To assess the effect of short-term (12 hrs) HVHF on norepinephrine (NE) requirements and lactate levels in patients with severe hyperdynamic septic shock. To evaluate tolerance and adverse effects of HVHF in this setting. To compare expected versus observed ICU mortality.

Methods Prospective, interventional, non-randomized study in Surgical and Medical Intensive Care Units of an academic tertiary centre. We included twenty patients with severe septic shock, previously unresponsive to a full evidence based-management algorithm; and with increasing NE requirements (> 0.3 µg/Kg/min) and lactic acidosis. The intervention was a single-session of 12-hours HVHF. We measured changes in NE requirements and perfusion parameters every 4 hrs during HVHF and 6 hrs thereafter.

Results The mean baseline NE dose was 0.76 ± 0.5 µg/Kg/min and it decreased significantly by 33 % at 4 hrs, 43 % at 8 hrs, and 63 % at 12 hrs. Fourteen patients decreased NE requirements (responders) and eleven of them decreased lactate levels. Only six patients did not decrease NE requirements (non-responders).

ICU mortality rate predicted by severity scores (>60%) was significant higher than observed (40%) being concentrated in non-responders (83% v/s 21%, p<0.001).

Conclusions This is the first clinical study in patients with severe hyperdynamic septic shock, treated with HVHF according to an evidence-based management algorithm. It confirms that HVHF may significantly improve haemodynamic and perfusion parameters. It also suggests a positive effect on mortality.

0072 INTRA-ABDOMINAL HYPERTENSION IN SEPTIC SHOCK PATIENTS

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Background Intra-abdominal hypertension (IAH), defined by a sustained increase in intra-abdominal pressure > 20 mmHg, impairs cardiovascular, respiratory and renal functions. It may also contribute to splanchnic hypoperfusion and to development of multiple organ failure in critically ill patients. Nevertheless, most studies on IAH have been focused in trauma, surgical or obese patients. Surprisingly, limited information exists about IAH in septic shock where severe distributive and microcirculatory abnormalities are present. We hypothesize that even moderate increases in intra-abdominal pressure may induce splanchnic hypoperfusion and lactic acidosis during septic shock. It appears to be important to establish the incidence of IAH in septic shock and to evaluate its relation to lactic acidosis or organ dysfunctions.

Objectives To evaluate in septic shock patients compared to postoperative patients with risk factors for IAH: (a) the incidence and time course of IAH during the first 48 hours of stay in the ICU; and (b) the consequences of IAH in lactate levels, maximum SOFA score and requirements of vasopressors.

Methods A prospective observational study was conducted in the Surgical ICU. 27 septic shock patients (septic shock group), and 19 abdominal surgery patients with > 2 risk factors for IAH (postoperative control group), admitted consecutively were included. Intra-abdominal pressure was measured every 6 h during the first 48 h. IAH was diagnosed with 2 consecutive measurements > 20 mmHg.

Clinical data including admission APACHE II and risk factors for IAH were registered. During follow-up, SOFA, peak norepinephrine doses and lactate levels were registered daily. Patients were followed until discharge. IAH incidence was established in both groups. Lactate levels, norepinephrine requirements and SOFA scores in patients with and without IAH in both groups were statistically compared. A p < 0.05 was considered significant.

Results 51% of septic shock and 31% of control patients developed IAH. Septic shock patients with and without IAH were comparable in peak norepinephrine dose, SOFA score and mortality. However, peak lactate levels were significantly higher in septic shock patients with IAH compared with those without IAH (3.5 mmol/L vs. 1.9 mmol/L, p<0.04). There was a significant positive temporal correlation between intra-abdominal pressure and lactate levels in septic shock patients with IAH. Peak levels of both occurred early and decreased progressively over time. Control patients with and without IAH exhibited comparable normal lactate levels.

Conclusions We found that in septic shock: 1) IAH has a very high incidence (51%) during early ICU stay irrespective of medical or surgical origin of patients. 2) Lactate levels are significantly higher in septic shock patients with IAH compared to those patients without IAH or to control patients with IAH. 3) There is a close temporal correlation between lactate and intra-abdominal pressure values over time.

0073 BEDSIDE CHECKLIST FOR NURSES, QUALITY ASSURANCE IN MANAGEMENT OF CRITICALLY ILL PATIENTS

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Background:

Monash Intensive Care unit is a combined adult and paediatric unit, admitting patients suffering from a wide range of health problems requiring critical care management. The nursing workforce is comprised of nurses with varying educational levels, knowledge and experience in the critical care area, ranging from Clinical Specialists to graduate nurses and transient agency nurses. In order to coordinate patient quality care within the unit, the nursing management committee has designed a bedside checklist.

The aim of implementing this checklist is to ensure patient and staff safety around the bed area while alerting nursing staff to the importance of clinical observations and physical examination of their patients. After a 3 month trial of the checklist, the nursing management committee conducted a survey of the Bedside Checklist among nurses working in the unit.

Objectives:

1. To study the critical care nurses' impressions about the Bedside Checklist.
2. To establish a basic safety checklist model to enhance the patient quality management.

Method:

The survey was conducted among a group of nurses who were working in one-single intensive care unit. The study subjects were recruited in a convenience sampling method. The questionnaires enclosed in the survey included respondents' demographic data, a combination of a Likert Scale designed quantitative questions and qualitative open-ended questions. These questions were designed to seek nurses' impressions about the checklist design and the effective use of the Bedside Checklist.

Results:

There were 110 surveys delivered to nurses. The number of respondents to the survey was 65.

The results show that majorities of staff agree or most likely agree that:

1. The Bedside Checklist is a well designed systematic guideline for nursing professionals (odds ratio: 3.31);
2. Following the Bedside Checklist is a good clinical reflective practice to nurses (odds ratio: 2.00);
3. All items listed in the Bedside Checklist are essential criteria to delivering safe patient care (odds ratio: 2.43);
4. Mandatory compliance to the bedside checklist is a good mechanism for quality management of patients (odds ratio: 1.5).

With sub-group studies, 50% of the first year graduated nurses and the critical care course students agree or most likely agree that mandatory utilisation of the Bedside Checklist will improve patient care standard.

Conclusion:

As professional critical care nurses, we should maximise patient safety in the complex work environment and the Bedside Checklist for Nurses is a reliable method of detecting patient problems before any further determinations are made. The Bedside Checklist is a formal and contextual knowledge tool stating the responsibilities to patients' designated nurses. It is a contractual binding agreement between a nurse and his/her professionalism. It is a useful instrument for patient quality management that also has the potential to improve patients' quality of care.

0074 EFFICACY, SAFETY AND COST EVALUATION OF REMIFENTANIL-MIDAZOLAM FOR ANALGESIA AND SEDATION OF CRITICALLY ILL PATIENTS UNDER MECHANICAL VENTILATION

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Background: In 2002, the ACCCM made recommendations for the use of sedative and analgesic drugs in mechanically ventilated patients. They stated that the drugs should have rapid onset of action, easy titration levels, no active metabolites and no accumulation. The authors hypothesized that with a remifentanil-based regimen those goals will be achieved.

Objectives: This study was conducted to establish efficacy, safety and costs of a remifentanil based regimen plus midazolam at a low dose for sedation and analgesia in mechanically ventilated critically ill patients.

Methods: This is an observational study in which 50 critically ill patients in mechanical ventilation (M.V) were included. We used for sedation and analgesia, remifentanil and midazolam at the following doses: remifentanil 5 mg (1% in normal saline) and midazolam 45 mg (9% in normal saline), both drugs in the same vial.

We started remifentanil at 0.05 mcg/kg/min and titrated according to validate scores:

Ramsay Scale, Richmond Agitation Sedation Scale (RASS), Visual Analogic Scale (VAS) and Verbal Rating Scale (VRS).

Results: For remifentanil, the required dose was 0.01±0.09 mcg/kg/min, which corresponded to a dose of midazolam of 2.19 ± 5.4 mg/hr. In 45 patients (90%) the objectives of this study were achieved. The medium time for awakening was 19.22 ± 53.9 min. The weaning time was 1.78 ± 4.5 hr. 3 patients developed constipation and 2 bradycardia without hypotension. Patients were divided in 3 groups according to the days of M.V.: Group A: 1 to 3 days (33pts.), Group B: 4 to 10 days (14 pts.), Group C: more than 10 days (3 pts.). The awakening time was as follows: Group A: 10.3± 25.3 min. Group B: 41.78 ± 79.5 min. Group C: 11.66 ± 5.7 min, and the weaning time was 1.15 ± 1.5 hours for groups A, 1.78 ± 4.5 hours for group B and 8.66 ± 11.5hr for group C. The medium dose of remifentanil and midazolam increased proportionally in accordance with the days of M.V. Patients with septic shock required a significantly higher dose of remifentanil 0.18 mcg/kg/min (p=0.006).

Conclusions: A combination of remifentanil and low doses of midazolam gives a safe and optimal control of pain and sedation in critically ill patients with mechanical ventilation and shortens weaning and awakening time.

0075 DEATH RISK FACTOR IN CHILDREN WITH TRAUMATIC BRAIN INJURY

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BACKGROUND. Traumatic Brain Injury (TBI) is one of the major causes of death in childhood in Brazil and responsible for nearly 40% of death among 5-9 years and 18% between 1-4 years. A successful approach in TBI depends upon an appropriate evaluation of the presenting lesion and judgment of the potential complications. Several studies have tried to establish risk factors that could identify a poor outcome, such as age, pupilar response, Glasgow Coma Score (GCS), politrauma, hypoxia, hyperthermia, elevated intracranial pressure, hemodynamic failure, abnormal radiology and laboratory exams. Nearly 90% of patients with severe TBI have altered radiology exams and some classification systems of head computerized tomography (CT) have been used in attempt to predict the outcome.

OBJECTIVE. Describe epidemiological, clinical and radiological characteristics of patients with mild/severe TBI and identify risk factors of death in a Pediatric Intensive Care Unit (PICU).

METHODS. Data were collected retrospectively from 95 consecutive cases of TBI hospitalized in nursery/PICU between January 2000 and January 2004. CT findings were evaluated by Marshall Classification. Statistical analysis: chi-square for continuous variables and Fisher tests for categorical variables for values less than five.

RESULTS. The mean age was 7,6 years (1-13,6) with 69 males and 26 females. 72 of 95 patients needed PICU support, the median of length of stay was 6,6 days with 7 deaths (9,7%). The principal causes of TBI were: trampling (31,6%), fall >1 meter (26,3%) and motor vehicle crash (17,9%). Among initial symptoms loss of consciousness (31,6%), vomiting (17,9%), seizures (13,7%) and GCS < 15 (63,1%). The clinical evaluation demonstrated that anisocoria in 11,6%, seizures in 8,4% and reduction of at least 2 points in GCS 7,4%. According to Marshall classification, 18 patients were type I (18,9%), 46 were type II (48,4%), 13 type III (13,7%), 6 type IV (6,3%) and 12 type V (12,6%) and Marshall V was statistical related to a poorer outcome (p=0,013) as well as there were significantly more deaths in the group with initial GCS < 11 (p=0,01), politrauma group (p=0,001), acidemia (p= 0,013) and in the group that presented anisocoria (p=0,009) during stay in PICU.

CONCLUSIONS. Some findings can predict a worse outcome, and the attending physician should use them as a basis to indicate a PICU hospitalization. The higher incidence of TBI in our study was in males at school age and trampling was the major cause. Seizures and loss of consciousness were not preponderant but GCS < 15 was present in the majority of patients at admission. Most patients with mild/severe TBI presented abnormal CT findings but Marshall V was the one related to death in our study. In this study, we found that acidemia, politrauma, GCS < 11, Marshall V and anisocoria were significantly related to death in PICU patients.

0076 THE EFFICACY OF SUBGLOTTIC SECRETION DRAINAGE

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Objectives

Continuous aspiration of subglottic secretion (CASS) has been shown to reduce ventilator associated pneumonia (VAP)[1]. The Mallinckrodt HILO EVAC tube is used for CASS and has a high volume low pressure (HVLP)cuff. It is known that HVLP cuffs allow leakage of residual fluid from the subglottis to the lungs. The LoTrach (LMA International SA, Henley, UK) is a new endotracheal tube with subglottic drainage channels and a low volume low pressure (LVLP)cuff designed to prevent leakage of residual fluid from the subglottis to the lungs [2]. CASS can no longer be recommended as it has been shown to cause tracheal mucosal injury [3]. Intermittent subglottic drainage may limit this mucosal injury but could allow pulmonary aspiration between subglottic suctioning episodes when using a HVLP cuffed tube. This study examines intermittent subglottic secretion drainage quantifying leakage past the cuff in a benchtop model.

Methods

Two tubes were tested; the Mallinckrodt HILO EVAC and the LoTrach LVLP were placed in a model trachea (2cm internal diameter). Water was infused above the cuff at a rate of 15ml/hr for 4 hrs and the volume passing the cuff was recorded. The test was performed with the tube at different angles of elevation and degrees of rotation (simulating different supine and lateral patient positions) and with continuous and intermittent drainage. Continuous suction was applied at -20mmHg whilst intermittent suction was performed hourly by hand with a 50ml syringe.

Results.

There was no leakage in any position with the LoTrach tube.

The HILO Evac tube was only able to prevent leakage with continuous drainage and when the subglottic port was positioned at "6 o'clock" (ie. dependent in the trachea). With intermittent drainage the HVLP cuff failed to prevent passage of fluid in any position.

Conclusions

With a HVLP cuff the effect of subglottic secretion drainage on pulmonary aspiration is limited. The LoTrach (LVLP) cuff maximises the efficiency of intermittent subglottic secretion drainage as it does not permit leakage.

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Elevation (Degrees)	Lo-Trach		Mallinckrodt. Port at "6 o'clock" position		Mallinckrodt. Port at "3 o'clock" position	
	Continuous aspiration at -20mmHg	Intermittent aspiration. Hourly	Continuous aspiration at -20mmHg	Intermittent aspiration. Hourly	Continuous aspiration at -20mmHg	Intermittent aspiration. Hourly
45	0 (0%)	0 (0%)	0 (0%)	58 (96.7%)	50 (83.3%)	57 (95%)
	0 (0%)	0 (0%)	0 (0%)	55 (91.7%)	53 (88.3%)	56 (88.3%)
30	0 (0%)	0 (0%)	0 (0%)	58 (96.7%)	54 (90%)	57 (95%)
	0 (0%)	0 (0%)	0 (0%)	57 (95%)	52 (86.7%)	55 (91.7%)

0077 NOSOCOMIAL INFECTIONS IN ICU: A LOCAL GUIDELINE BASED ON EPIDEMIOLOGICAL DATA IN ICU SEARCHING SOLUTIONS FOR ANTIMICROBIAL RESISTANCE

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Objective: antibiotic use for infection is common in the intensive care unit .To achieve a local guideline relative to antimicrobials usefulness in ICU based on local epidemiological knowledge for an appropriate antibiotic use like a useful tool to decrease antimicrobial resistance.

Design: observational prospective study conducted in ICU in tertiary care hospital during thirteen months

(March 2001 until May 2002), patients with clinical infection were analyzed by infection site and pathogen distribution, as well as, local susceptibility and resistance data

Setting: ICU in University Medical Center, Caracas University Hospital, Central University of Venezuela.

Results: In this period, 693 patients were admitted to the ICU. 111(16%) patients meeting criteria were enrolled.

Infections were analyzed by infection site and pathogen distribution. Nosocomial infections are most frequent in ICU (47%) and nosocomial pneumonia is the most one of them (44%).

Followed by bloodstream infections associated with central lines (15%).

Gram- negative aerobic organisms are the most frequent pathogens isolated (57%). The commonest is Acinetobacter baumannii, followed by Pseudomona aeruginosa and Klebsiella pneumoniae. Gram-positive bacteria are second more frequent pathogen (17%) with staphylococcus epidermidis is the first in catheter-associated infection, fungal infections represent the fifth place.

Conclusions: hospital acquired infection in specials the ICU-acquired infection is common and often associated with microbiological isolates of resistant organisms. High rate antimicrobial resistance for Gram negative pathogens make difficult having alternative therapies; nevertheless specific measures for infection control in critically ill patients and practice guidelines based on local epidemiological data are obligatory in ICUs environment.

0078 A PROSPECTIVE EVALUATION OF NURSE-DIRECTED PROTOCOLIZED WEANING FROM MECHANICAL VENTILATION ON PATIENT OUTCOMES IN THE UNITED KINGDOM

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Background

Growing international evidence demonstrates that respiratory-therapist or nurse-directed protocols for weaning from mechanical ventilation (MV) are safe and efficient and may lead to a reduction in MV time when compared with traditional weaning methods. Since the Department of Health established the Modernisation Agency Critical Care Programme in the United Kingdom (UK) in 2000, several intensive care units (ICUs) introduced nurse-directed weaning; however its efficacy in the UK health care system had not been evaluated.

Objectives

To compare nurse-directed protocolised weaning with traditional doctor-led weaning practice.

Methods

A non-randomised comparative trial conducted in 2 ICUs in 2 university-affiliated teaching hospitals from January 2001 to December 2003. The sample comprised all patients receiving MV. Outcome measures (MV time, intubation time, ICU stay, and mortality and reintubation rates) were collected before (phase 1) and after (phase 2) the intervention in both units.

Results

After implementing nurse-directed weaning the geometric means (GM) for MV time, intubation time and ICU stay increased from baseline in both units. Regression-based analyses showed that changes from baseline were not significantly different between the 2 units for MV time (p=0.37) and intubation time (p=0.39) but were for ICU stay (p=0.03). APACHE II and the patient's diagnostic category were significant predictors. Following adjustment for these covariates, changes from baseline in the intervention unit were not significantly different from changes in the control unit. The ratio of GMs phase 2: phase 1 (95% CI) before and after adjustment for APACHE II and diagnostic group are presented. Reintubation and mortality rates were not significantly different from baseline within both units.

Conclusions

In the UK, patient outcomes are not significantly affected when patients are weaned using nurse-directed protocols. This study highlights the key role of nurses in providing safe and efficient weaning of patients from MV. The findings support other studies advocating the efficiency of protocolised weaning.

	Phase 1 GM (hours)	Phase 2 GM (hours)	Ratio (95% CI)	Ratio (adjusted) (95% CI) Control Unit
n=134	n=117			MV time
105	132	1.26 (0.90-1.76)	1.18 (0.84-1.67)	Intubation time
124	169	1.36 (0.99-1.87)	1.28 (0.93-1.76)	ICU stay
200	212	1.06 (0.83-1.37)	1.03 (0.79-1.34)	Intervention Unit
n=197	n=214			MV time
86	131	1.53 (1.17-2.00)	1.21 (0.94-1.55)	Intubation time
87	143	1.64 (1.25-2.15)	1.26 (0.98-1.61)	ICU stay
123	193	1.57 (1.26-1.96)	1.33 (1.08-1.63)	

0079 EARLY COMBINATIONS OF VENTILATION'S THERAPIES IN ACUTE RESPIRATORY DISTRESS SYNDROME USING HIGH FREQUENCY AND HELIUM

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BACKGROUND/OBJECTIVE:

In Intensive Care Unit patients (ICUp.), Acute Respiratory Distress Syndrom (ARDS) is still a major factor morbidity and mortality (1). The purpose of this study is to show the benefit of early combined ventilatory methods.

METHODS: We studied a total of twenty ICUp. with ARDS intubated after a persistent hypoxemia of more than one hour's duration. An Evita 4 Respiator (drager) was used in all patients (T0). Patients were randomly separated into two groups of ten patients:

1. In the first group we used with conventional positioning recruitment ventilation using the Open Lung Concept (2). This group served as our control group.
2. In the second group we systematically added a new therapeutic mode every two hours: Nitric Oxide (T1= NO), Prone Position (T2=NO+PP), Jet Ventilation (T3=NO+PP+JV) and Heliox 80/20 (He+) with Permissive Hypercapnea (T4=NO+PP+JV+He+PH). The best therapy was thereafter resumed until weaning occurred.

RESULTS:

Patients in the first group were on average ventilated for 15 days (15±3) whereas those in group two were extubated after 7 days (7±2).

We observed an 29% increase in shunt fraction during NO and a 33 % decrease during Prone Position , as well as a 16 % drop in oxygen alveolar partial pressure (PAO2) during T4 while at this stage the Pif (pO2/fiO2) raised 17 times when compared to T0. He+ in this setting permitted a gain of 14% in PAO2 showing its dual physical effects by decreasing the Jet Ventilator's driving pressure as well as raising pulmonary compliance by 55%. Haemodynamic parameters were unaffected; blood lactate levels diminished concurrently with the improvement in oxygenation.

CONCLUSION:

In ARDS, early aggressive ventilation using a combined approach leads rapidly (5 h) to improvement in oxygenation, reducing ventilation time and thus morbidity. Improvement obtained from High frequency ventilation is of major importance by means of obtaining a higher alveolar recruitment when compared to prone positioning alone. Helium does not improve oxygenation but certainly diminishes broncho-alveolar constraint due to decreasing Jet Ventilator's driving forces.

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0082 SIGNS OF CRITICAL CONDITIONS AND EMERGENCY RESPONSES (SOCCER): A MODEL FOR PREDICTING ADVERSE EVENTS IN THE INPATIENT SETTING

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Aims: To establish the association between recordings of disturbed physiological variables and adverse events in adult patients. The variables may be appropriate 'call criteria' for Medical Emergency Teams (MET).

Method: Cross-sectional survey of admissions in general wards in 5 hospitals in a 14 day period. Recordings of 26 potential early signs (ES) and 21 potential late signs (LS) of critical conditions and adverse events, cardiac arrest (CA) and death were collected. The ES and LS were agreed a priori by a panel of senior ICU and Emergency clinicians. They included published MET call criteria.

Results: There were 3046/3160 (nonDNR/total) admissions, 12384/13796 ES, 1410/1786 LS, 5/9 CA and 27/79 deaths recorded.

Analysing the nonDNR admissions the relative risk (95% CI) for death and CA are displayed.

FOR ES	DEATH	CA	FOR LS	DEATH	CA
Base deficit -5 to -8mMol/L	40.2(7.7-208.8)	nre (nil relevant events)	UO <200mls/24hrs	188.6(30.1-1179.8)	nre
Poor peripheral circulation	34.4(6.8-174.0)	94.8(9.5-944.0)	pH <7.2	116.1(7.1-1906.1)	nre
Excess drain fluid loss	30.1(6.1-148.9)	nre	Unresponsive to verbal commands	34.8(10.7-113.0)	42.0(4.5-394.3)
pH 7.2-7.3	29.0(3.1-148.9)	nre	Anuric	29.0(3.1-268.3)	nre
PaCO2 51-60mmHg	20.1(4.3-94.3)	nre	PaO2 <50mmHg	20.1(4.3-94.3)	58.2(6.1-556.9)
UO <200mls/8hrs	14.4(5.2-39.6)	14.7(1.6-133.4)	HR <40 or >140/min	17.0(6.6-43.8)	13.6(1.5-123.4)
GCS <12	14.1(3.1-64.4)	nre	Respiratory Rate <5 or >40	16.6(2.0-139.3)	nre
Respiratory Rate 5-9 or 31-40	9.2(2.1-40.9)	nre	PaCO2 >60mmHg	16.6(2.0-139.3)	nre
SpO2 90-95%	8.1(3.0-21.3)	7.2(0.8-64.6)	SBP <80mmHg	7.1(2.1-24.4)	37.6(6.2-229.6)
SBP 80-100mmHg	6.9(3.2-15.2)	16.0(1.8-143.3)			

Conclusion: ES and LS of critical conditions were associated with CA and death. Ward staff education and a model of "call criteria" and levels of response for deteriorating physiology can be based on these findings. This data expands MET "call criteria".

0083 QUALITY ASSURANCE IN CRITICALLY ILL PATIENTS: ENSURING BEST PRACTICE IN SEVERE SEPSIS AND SEPTIC SHOCK

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Background: Sepsis has a prevalence, cost, and mortality comparable to that of acute coronary syndromes. However, it has only recently received similar emphasis on early, aggressive and evidence-based treatment. Therapies now exist that have been shown to significantly decrease mortality and length of hospital stay, although it is unclear how often or rapidly these are typically administered. These therapies, summarized in the Surviving Sepsis Campaign Guidelines,¹ include: early patient identification, early fluid boluses, early broad spectrum anti microbial therapy, early goal-directed hemodynamic support; low dose corticosteroids; tight glycemic control; and recombinant human activated protein C (rhAPC)². Because an APACHE II > 25 is required for rhAPC usage, these sepsis patients are likely the sickest. Consequently they should receive not just rhAPC, but all of the aforementioned therapies. This study is intended to determine mortality rates of patients that received rhAPC, and whether they received all evidence-based, cost-effective and time sensitive therapies.

Methods: Retrospective chart review of all adult inpatients for whom rhAPC was ordered in the four intensive care units in the Capital Health Region between March 1, 2003 and April 30, 2004. Detailed nursing assessments, as well as medications and therapeutic interventions, were reviewed.

Results: During the 14 month study period rhAPC was ordered for 34 patients. 52.9% of patients were female and mean age was 57.6 y. All had an APACHE II > 25 (mean 31) and all had at least 3 organ failure. Most common underlying conditions were pneumonia 15/34 (44.1%) and intra-abdominal sepsis 9/34 (26.5%). Overall, 28 day mortality was 11/34 (32.4%), and ICU mortality was 12/34 (35.3%). Mean time from event to initial fluid bolus was 1.6 h; from event to initial antibiotics was 3.1 h; and from event to ICU admission was 4.5 h. Mean time to arterial line monitoring was 3.2 h, to CVP monitoring was 7.7 h, and to central venous saturation measurement was 16.5 h. Mean time from ICU admission to administration of rhAPC was 15.9 h. Five patients did not receive corticosteroids. All patients received vasopressors with norepinephrine the initial vasopressor in 22/34 (65%) and eventually used in 31/34 (97%). Renal replacement therapy was required in 21/34 (62%) and was associated with increased mortality (62%). Mean ICU LOS was 18 days.

Conclusions: Mortality in our patients was very similar to those in the PROWESS trial² (32.4 vs. 31%) and was better than predicted from APACHE II scores. Areas for improvement include: faster recognition; earlier antibiotics; faster fluid resuscitation; and earlier central venous saturation measurement. It remains to be seen if dissemination of sepsis guidelines will further improve management.

- References:** 1. Dellinger RP et al. Crit Care Med 2004; 32(3): 858-73.
2. Bernard G.R. et al. NEJM 2001; 34(10): 699-709.

0084

OUTCOME IN PERCUTANEOUS TRACHEOTOMY WITH FORCEPS-DILATATIONAL TECHNIQUE WITHOUT BRONCHOSCOPY IN ICU

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Objective: The purpose of this study is the evaluation of patients that underwent technical forceps-dilation without bronchoscopy performed at bedside by skilled physicians in the procedure.

Design: We retrospectively analyzed: forceps dilation technique, percutaneous tracheotomy procedure performed without bronchoscopy in our ICU of a tertiary hospital university in a period of four years, from January 2001 up to December 2004, all of them were made at bedside by skilled physicians in that procedure, in a 12-bed medico-surgical (Mixed) ICU.

Setting: The intensive care unit of a university teaching hospital: Caracas University Hospital, Central University of Venezuela.

Results: In this period 1574 patients were admitted to the ICU, 236(15%) of the patients met criteria to perform a tracheostomy: all patient were critically ill and required long-term endotracheal intubations and also were long-term ventilatory dependent; ninety-two (92; 38, 98%) tracheotomies were made by Griggs' forceps-dilatational technique. The mean mechanical ventilation time before the tracheostomy was fifteen (15) days and the mean operating time was 10.78 minutes (range, 3-25 mins). No death occurred as a consequence of the tracheostomy in this study. A total of 3 (3,26 %) major complications developed in 3 patients: (1) conversion to the conventional technique for profuse bleeding; (1) Pneumothorax; and (1) posterior tracheal wall injury.

Conclusions: Our data suggests that for the ICUs lacking of fiber optic bronchoscopy resources; forceps dilatational percutaneous tracheostomy without bronchoscopy is a safe and cost-effective alternative procedure that can be performed at bedside by the ICU medical staff, avoiding the patient's transfer to the surgery room.

0086

SERUM LIPIDS ANALYSIS IN SEPTIC SHOCK PATIENTS

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Objective: Not much is currently known about lipoproteins and its role in septic shock. Many studies have recently implicated lipoproteins with the innate immunity against LPS. There are many questions whether low values of serum lipoproteins are related to an impaired innate immunity against endotoxin and to a poor prognosis. We conducted a prospective study to analyze serum lipids, glucose, triglycerides and C reactive protein in septic shock patients and evaluate its possible relation with outcome.

Methods: Prospective observational analysis of serum of patients meeting criteria for septic shock. Eighteen patients were analyzed in the study. We selected all consecutive patients who met criteria for septic shock in our ICU and we collected blood samples for analysis in days 1,3,6,9,12 or until death. We analyzed total cholesterol, cholesterol fractions (HDL, LDL, VLDL), triglycerides, glicemia and C reactive protein (as a marker of inflammation).

Results: All results are presented as mean with standard deviation. For analysis we divided patients in survivors and non-survivors at day 12. We performed paired Student's t test for differences in continuous variables and correlation coefficients were determined according to multiple level regression analysis. A p value of < .05 was considered significant. Our mortality rate was 60%. We had ten patients in the non survivor group and eight patients as survivors. The two groups had similar APACHE II scores (non survivors 26 ± 6; survivors 24 ± 5; NS). At day 1 there were no statistical difference for none of the substances analyzed. From day 3 on we achieved significant statistical differences between survivors and non survivors for total cholesterol, HDL fraction, triglycerides, glicemia and C reactive protein. The correlations of C reactive protein with HDL fraction, total cholesterol, triglycerides and glicemia were not good. As independent variables we found only glicemia and triglycerides.

Conclusions: In our patients, hypocholesterolemia, low levels of HDL fraction, hypertriglyceridemia and hyperglycemia, were statistically significant related to a poor prognosis. C reactive protein did not show a good correlation with other parameters.

0087

MORTALITY PREDICTORS IN ESOPHAGEAL VARICEAL BLEEDING DUE TO PORTAL HYPERTENSION IN HEPATIC CIRRHOTIC PATIENTS TREATED ENDOSCOPICALLY

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Background/Objectives: Esophageal variceal bleeding (EVB) is an acute, severe and dramatic complication of patients with portal hypertension. It carries a high mortality (M) and its endoscopic treatment must be done in the emergency department, by sclerosis (S) or ligation (L).

To assess mortality predictors (MP) could be useful to detect patients with the highest risk.

Materials and methods: Sixty hospitalizations at ICU because of EVB, from 35 patients (28 men and 7 women) aged 28 to 75 years old (50.2 ± 11.86 years), between October 2001 to October 2004 were analyzed in an observational clinical trial.

Twenty patients had rehospitalization because of EVB: 17 patients had 2 rehospitalizations, and 3 patients had 3 or more.

Seven patients died during hospitalization. The following factors as MP were evaluated: age, sex, Apache II score at admission and at 24 hs, cirrhosis etiology, endoscopic therapy (S or L), transfusion requirements, endoscopic variceal degree, Child classification for chronic liver disease at admission, rebleeding since admission until 48 hs, and rebleeding after 48 hs from admission during hospitalization.

The following statistical methods were used: chi square, Exact Fisher test, ANOVA, Mann-Whitney test and Logistic Regression.

Results: Apache II score at admission:

From the 7 hospitalization of those patients who died was 16.9 ± 7.0 and from 53 hospitalizations of the patients who didn't die was 12.4 ± 3.5 (p = 0,007).

Apache II score at 24 hs:

From the 7 hospitalization of those patients who died was 15,2 ± 7.0 and from 53 hospitalizations of the patients who didn't die was 10,5 ± 2,9 (p = 0,004).

Apache II score > 15 at admission showed death relative risk (DRR): 6.5 (CI 95%: 1.2 – 34.3. p = 0.034), and at 24 hs DRR: 14.3 (CI 95%: 2.0-104.0. p = 0.016).

Child C class at admission showed significant correlation with M (p = 0.022).

Rebleeding after 48 hs from admission during hospitalization showed significant correlation with M (p = 0.028).

The other evaluated items showed non statistic significant correlation with M.

Logistic regression showed that the most powerful MP were Apache II score >15 at 24 hs and Child C class at admission.

Conclusion: In our trial the MP during hospitalization in EVB were:

1-Apache II score at admission and at 24 hs.

2-Child classification for chronic liver disease at admission.

3-Rebleeding after 48 hs from admission during hospitalization.

0089 RESOLUTION OF RETROPERITONEAL HEMATOMA POST-ENDOVASCULAR PROCEDURE USING RECOMBINANT ACTIVATED VII FACTOR IN AN ANTICOAGULATED PATIENT WITH WARFARIN WITHOUT NECESSITY OF SURGICAL CORRECTION

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BACKGROUND: For many years Recombinant Factor VIIa (rFVIIa; NovoSeven®, Novo Nordisk, Bagsvaerd, Denmark) has been used with success for treatment and prophylaxis of hemorrhagic events in hemophilic patients, with inhibitors for VIII and IX factors. Efficacy of rFVIIa in these situations increased the scope of its utilization during surgical procedures, not only in hemophilic patients. Better understanding of its action mechanism, turned it an adjunctive therapy in severe trauma patients or during surgeries in patients without previous coagulopathy. Another problem in clinical scenario are patients using warfarin, that must be submitted to emergency surgical procedures. Recombinant FVIIa, had been used in these patients successfully.

OBJECTIVES: Evaluate clinical response of rFVIIa in a puerperal patient with a huge retroperitoneal haematoma, using Warfarin, during postoperative endovascular procedure.

METHODS: Study of one case report.

RESULTS: The authors describe rFVIIa utilization in a puerperal patient, who was submitted to an endovascular procedure to correct an iliac arterial-venous fistula, by part of treatment of inferior Cava Vein thrombectomy, Left Iliac Vein thrombectomy and superficial and profound venous thrombectomy of left limb, as a result of Phlegmasia coerulea dolens that occurred fifty days before. As a complication of an angioplasty of this vein to correct an extrinsic compression of iliac artery, a large retroperitoneal haematoma was formed, accompanied of haemorrhagic shock. 9.6 mg of rFVIIa was utilized, and bleeding was controlled with prompt haemodynamic stabilization, without necessity of surgical repair. The patient was submitted to abdominal CT at admission, 3rd and 7th day of evolution, wich showed complete resolution of haematoma.

CONCLUSIONS: rFVIIa was efficient for bleeding control, promoting complete absortion retroperitoneal haematoma, without surgical intervention.

0090 TONOMETRIC URINARY BLADDER-ARTERIAL PCO₂ DIFFERENCE DURING ISCHEMIA AND REPERFUSION: COMPARISON WITH OTHER PCO₂ GRADIENTS

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Objective: Continuous monitoring of bladder PCO₂, by means of fiberoptic sensor technology might be a useful monitor of tissue perfusion. In addition, its changes might parallel tonometric gut PCO₂. Our hypothesis was that bladder PCO₂ measured by saline tonometry might resemble ileal PCO₂ during ischemia and reperfusion.

Methods: Six anaesthetized and mechanically ventilated sheep were bled to a mean arterial blood pressure of 40 mm Hg for 30 minutes (ischemia). Then, blood was reinfused and measurements were repeated at 30 and 60 minutes (reperfusion). We measured systemic and gut oxygen transports and consumptions (DO₂ and VO₂), lactate and urinary bladder-arterial, ileal-arterial, mixed venous-arterial and mesenteric venous-arterial PCO₂ gradients (bladder ΔPCO₂, ileal ΔPCO₂, Pv-aCO₂, Pvm-aCO₂). Both bladder and ileal ΔPCO₂ were measured by saline tonometry.

Results:

	BASAL	ISCHEMIA	REPERFUSION 30'	REPERFUSION 60'
DO ₂ (ml/min/kg)	19.5 ± 2.7	7.8 ± 1.9*	18.8 ± 2.8	19.3 ± 3.2
VO ₂ (ml/min/kg)	6.8 ± 1.0	5.7 ± 1.5*	7.4 ± 1.2*	7.2 ± 0.9*
Gut DO ₂ (ml/min/kg)	112.5 ± 35.2	31.1 ± 14.0*	126.1 ± 51.1	107.8 ± 28.7
Gut VO ₂ (ml/min/kg)	30.3 ± 4.6	19.3 ± 7.1*	31.3 ± 6.9	31.5 ± 6.6
Lactate (mmol/l)	1.6 ± 0.5	3.7 ± 1.7*	3.9 ± 2.0*	3.2 ± 1.5*
Pv-aCO ₂ (mm Hg)	5 ± 1	13 ± 4*	7 ± 2	6 ± 2
Pvm-aCO ₂ (mm Hg)	4 ± 2	14 ± 4*	5 ± 3	5 ± 3
Bladder ΔPCO ₂ (mm Hg)	3 ± 3	12 ± 5*	13 ± 6*	13 ± 7*
Ileal ΔPCO ₂ (mm Hg)	9 ± 5	29 ± 16*§	16 ± 14	13 ± 6

* p < 0,05 vs. basal. § p < 0,05 vs. the other PCO₂ gradients.

Conclusions: 1. Tissue and venous hypercarbia is a ubiquitous event during low flow states. 2. Tonometric bladder ΔPCO₂ might be a useful indicator of tissue hypoperfusion. In addition, the persistence of bladder hypercarbia after blood reinfusion might identify a territory more susceptible to reperfusion injury. 3. The highest increase in PCO₂ gradients occurred in gut mucosa. Moreover, an ileal ΔPCO₂ higher than Pvm-aCO₂, suggests that tonometrically measured PCO₂ reflects mucosal rather than transmural PCO₂. Ileal ΔPCO₂ seems to be the more sensitive marker of ischemia.

0091 HEART DYSFUNCTION AND HEART RATE VARIABILITY PROGNOSIS IN SEPSIS

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Objective: Sepsis is a leading cause of mortality in intensive care units. Septic patients have better prognoses when multiple organ dysfunction syndrome is not present. Regarding the heart, the variability of the R-R interval (HRV) also depends on the coupling between the heart and other organs, it may be an easy and available tool for assessment of nonlinear dynamic relationships among organ and multiple organ dysfunction syndrome development. We performed a prospective study to analyze HRV, hemodynamic, echocardiography, serum cardiac markers (troponin and creatin phosphate kinase) and evaluate its possible relation with outcome.

Methods: Prospective observational analysis of serum of patients meeting criteria for septic shock. Twenty-five patients were analyzed in the study. We selected all consecutives patients who met criteria for septic shock in our ICU and we collected blood samples for analysis in days 1, 3, 6, 9, 12 or until death. We analyzed creatin phosphate kinase total (CPK) and MB (CK-MB), troponin was also analyzed. We analyzed hemodynamic parameters by pulmonary catheter, cardiac ultrasonography and 24 hour holter recording in days 1, 3, 6, 9, and 12.

Results: All results are presented as mean with standard deviation. For analysis we divided patients into survivors and non-survivors up to hospital release. We performed ANOVA for repeated measurements in continuous variables. Correlation coefficients were determined according to multiple-level regression analysis. A p < 0.05 was considered significant. Our mortality was 60%. We had fifteen patients in the non-survivor group and 10 patients in survivors. The two groups had similar APACHE II scores (non-survivors 26±; survivors 24 ± 5; NS). CPK, CK-MB, echocardiography analysis, cardiac output, vascular resistance did not show any significant difference at any moment during the study period. However, troponin showed a significant difference from the first day of study, stroke work analysis follow up showed a significant difference between survivors and non-survivors. The differences of stroke work data become higher from day 3 onwards. The HRV showed a significant difference in maximal and minimal LF and maximal HF. Maximal LF was the only independent correlation variable predictig patient's outcome.

Conclusions: In our study, HRV showed capability to prognose the patient's outcome. Heart dysfunction was detected only by serum troponin levels and stroke work as hemodynamic data.

0092

BACK TO BASICS: A MULTIDISCIPLINARY APPROACH TO THE SIMULTANEOUS REDUCTION OF MULTIPLE NOSOCOMIAL INFECTION RATES IN A PEDIATRIC INTENSIVE CARE UNITN Khan¹, L McDonald¹, C McGlone¹, MW Hall²¹ Columbus Children's Hospital, Columbus, OH, USA; ² Columbus Children's Research Institute, Columbus, OH, USA

Background/Objectives: Nosocomial infections result in increased morbidity, mortality, length of stay, and health care costs. Numerous studies have demonstrated the effectiveness of multidisciplinary teams in targeting single routes of nosocomial infection in ICUs but to our knowledge there are no reports of this approach being applied in a comprehensive campaign against multiple routes of infection. We hypothesized that a prospective interventional program consisting purely of bedside caregiver education, designed by a multidisciplinary panel from our 35-bed quaternary care Pediatric Intensive Care Unit (PICU), would simultaneously lower rates of multiple nosocomial infections with little cost.

Methods: A standing "PICU Working Group" including physician, nursing, respiratory therapy, and epidemiology representation designed and implemented an education program for bedside caregivers in our PICU which targeted 14 Category 1 recommendations from the Centers for Disease Control (CDC). These recommendations addressed hand hygiene, central venous catheter care, mouth care, and urinary catheter care. Rates of ventilator-associated pneumonia (VAP), catheter-related bloodstream infections (CBI), and catheter-related urinary tract infections (UTI) were recorded according to CDC criteria. The caregiver education program consisted of monthly staff meetings, new signage, and periodic walkthroughs by Working Group members. No new equipment was purchased (antibiotic-impregnated catheters were not used) and program costs were limited to the additional signage. This program was implemented throughout 2003.

Results: 1773 patients were admitted to our PICU in 2003. Rates of VAP, CBI, and UTI, which were initially above US national averages as reported by the CDC, fell dramatically between the first and fourth quarters of 2003 (see table). There were no cases of VAP or nosocomial UTI in the fourth quarter of 2003. The relative risk for development of any device-related infection in our PICU in 2003 compared with 2002 was 0.55 (95% confidence interval: 0.38-0.78).

Conclusions: To our knowledge ours is the first report of the successful implementation of a comprehensive nosocomial infection prevention strategy in a PICU targeting multiple routes of infection. We have shown that a program of bedside caregiver education targeting basic interventions can cheaply yield marked, sustained, and simultaneous improvement in multiple nosocomial infection rates. Use of an integrated multidisciplinary model of problem solving can be a highly effective way to concomitantly implement multiple quality improvement initiatives.

Infection	Infection rate/ 1000 Device Days			
	CDC Average	Columbus 2002	Columbus 1st Quarter 2003	Columbus 4th Quarter 2003
VAP	2.2	5.1	4	0 (100%)*
CBI	7.4	13.2	15.9	3.8 (76%)*
UTI	4.7	10	14.4	0 (100%)*

* % reduction from 1st Quarter 2003

0093

PERSISTENT ELECTROGRAPHIC ICTAL PATTERNS AFTER CONTROL OF CLINICAL STATUS EPILEPTICUS IN PEDIATRIC CRITICALLY ILL PATIENTS

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Background: Rapid control of convulsive (CSE) or nonconvulsive SE (NCSE) is important for prevention of neurological damage, but the ending of convulsive movements may not always indicate cessation of electrographic seizure activity.

-Nonconvulsive status epilepticus (NCSE) is an underestimated cause of coma; the electroencephalogram (EEG) evaluation of these patients without clinical signs of seizure activity yielded NCSE in 8% (Towne). The difficult to identify this type of SE delays the treatment and therefore worsens the prognosis (De Lorenzo, Krumholz)

-Around 20 to 50% of CSE continue with electric SE even after cessation of the clinical manifestations (Jaitley)

Objectives: We design a prospective observational study to determine the absence or not of ictal electrical activity after the successfully treatment of clinical SE. **Materials and Methods:** From 1/4/04 to 1/2/05 we prospectively recorded the EEG in all cases of SE admitted to our Pediatric Intensive Care Unit. The EEG was recorded following admission to the Unit during the 30 minutes after the control of clinical SE; the evaluation of the EEG was made by a pediatric neurologist. Clinical SE definition: adapted from Gastaut (1983) modified by Krumholz (1999).

Definitions of EEG patterns: quoted from Claassen (2004).

Classification of etiologies quoted from Young (1996).

Electroencephalograph Bioscience Vector 20 USB. Montage: halo C3C4.

Statistical analysis: Epi Info 6.0

Results: 19 patients were included in the research.

Mean age: 41.4 months; **median:** 12 months; **range:** 1-120 months.

15(79%) were mechanically ventilated.

EEG duration: median: 63.4 minutes. **Range:** 5-720 minutes.

SE duration: median 180 minutes. **Range:** 30-1440 minutes.

Type of seizure: 13 CSE (70%), 6 NCSE (30%).

Etiology: 10(52.6%) remote symptomatic, 9 acute symptomatic.

6 patients (31.6%) of all the study had EEG with ictal patterns: 4 had electrographic seizures, 1 had PLED and 1 GPED; the last also had burst-suppression and was one of the patients who died.

5(83%) of these 6 patients were mechanically ventilated along with a continuous infusion of Midazolam (0.2 mg/kg/hour) when the EEG was performed.

Overall mortality observed: 3(15.8%) patients: Retinoblastoma, Encephalitis (AIDS) and Carbon monoxide poisoning; IC:4-37%.

Overall expected mortality: 12% (PIM II)

Conclusions: An EEG should be obtained after apparent clinical control of CSE and/or NCSE in pediatric patients to verify the presence or not of persistent electrographic seizures, and then achieve an effective and complete treatment to avoid the increase of cerebral insults.

0094

COMPARISON BETWEEN HLA-DR SURFACE AND INTRACYTOPLASMATIC CONCENTRATION IN CIRCULATING BLOOD MONOCYTES IN SEVERE SEPTIC PATIENTS

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Background: Monocytes from many septic patients show a low level human leukocyte antigen-DR (HLA-DR) expression. This phenomenon is believed to play a role in these patients' increased susceptibility to secondary infections. Mechanism leading to a loss of HLA-DR molecules in monocytes in sepsis are only partially determined. Intracellular sequestration and transcriptional regulation have been involved.

We compared in circulating blood monocytes of the surface HLA-DR expression and the intracytoplasmatic concentration of HLA-DR.

Methods: Monocytes were studied from whole blood samples obtained from patients presenting with severe sepsis and in healthy volunteers. Surface HLA-DR expression was determined by a quantitative flow cytometry method (Quantibrite, BD, USA). The results are expressed in molecules/cell. Intracytoplasmatic concentration of HLA-DR was measured using fluorescent monoclonal antibodies. A mathematical model was used to transform the intensity measures of intracytoplasmatic HLA DR in a quantitative molecules/cell value. The comparison of quotients between HLA-DR intracytoplasmatic and surface concentrations (I/S) was made in controls and septic patients monocytes.

Results: Twelve patients were enrolled in the study. Average age: 54.5 ± 19.1 years, APACHE II score (at entry): 23 (18-28), SOFA score (at entry): 9 (8-11). Mortality: 50%. We found a significant reduction in membrane HLA-DR expression in septic patients at study entry related to controls: 3842 (1994.2-4205.2) vs. 25368 (19962.7-28329.5) molecules/monocyte, p<0.0001. The membrane monocyte HLA-DR expression in controls: 25208.0 (19986.0-26698.0) was significantly higher than the intracytoplasmatic concentration: 11899.0 (5116.0-13197.0), p=0.0078. In contrast, the membrane monocyte HLA-DR expression in septic patients: 1832.0 (639.0-2772.0) was significantly lower than the intracytoplasmatic concentration: 3330.0 (1351.0-3709.0), p=0.0327. The I/S quotient was significant higher in the patients than in the controls, p=0.0012.

Conclusion: The HLA-DR surface and intracytoplasmatic concentrations decreased in the septic patients, but the decrease of the HLA-DR surface concentration was more important. These data suggest that there are two mechanisms involved in the lower expression of HLA-DR: decrease of the transcription and of the expression in membrane.

0095 THE VALUE OF THE "RESEARCH COORDINATOR POSITION" IN AUSTRALIAN AND NEW ZEALAND INTENSIVE CARE UNITS

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Background: The Research Coordinator (RC) role is a relatively new addition to staffing profiles in Australasian Intensive Care Units (ICUs). The position was developed in the mid 1990s in response to the increasing quantity and complexity of pharmaceutical oriented research, the establishment of the Australia and New Zealand Intensive Care Society Clinical Trials Group (ANZICS CTG), and a growing interest in research and evidence based practice in the health professions. There have been anecdotal reports of RC positions in various speciality areas in the past. However, limited research has been undertaken into the role, and no study has been published in the ICU setting.

Objectives:

1. Describe the demographics of Australasian ICU RCs (e.g. age, gender, education, professional experience)
2. Describe the structure and function of the RC role in Australasian ICUs (e.g. attributes of the position, type of research undertaken)

Design: Cross-sectional cohort study

Method: After obtaining institutional ethics approval all members (n=69) of the Australia and New Zealand Intensive Care Research Coordinators' Interest Group (IRCIG) were invited to participate. RCs completed a self-report anonymous questionnaire with regards to demographics and role structure using a secure website. The demographic data and open-ended responses for the best and worst aspects about the RC role were descriptively analysed using an adapted thematic method.

Result: 49 participants (71%) completed the survey. The majority were female aged between 31 and 50 years, who had worked in clinical >9 years. All respondents held tertiary qualifications with more than half (57%) having postgraduate degrees. Nearly half the RCs had been in the position 1 to 3 years, with 2% >9 years. Sponsored pharmaceutical trials accounted for the majority of work, followed by ANZICS CTG trials, departmental research, audits and personal research.

Four thematic clusters for best and worst aspects of the job emerged: Job structure, job worth, work description and colleagues. The best aspects of the role as determined by the survey were autonomy and flexible hours (job structure); respect (job worth); intellectual stimulation (work description) and working in a multidisciplinary team (colleagues). The worst aspects of the role according to the survey were isolation and onerous on-call (job structure); being under-valued (job worth); excessive workload (work description) and lack of support from nursing management (colleagues).

Conclusion: The Australasian RC is usually an experienced nurse who values autonomy, respect and intellectual stimulation and finds isolation, workload and under-recognition to be the worst aspects of the position.

The results from this survey should assist management in finding ways to stimulate retention and attract the best staff for this valuable position.

0096 SATISFACTION WITH AND IMPORTANCE OF JOB VARIABLES FOR RESEARCH COORDINATORS IN AUSTRALIAN AND NEW ZEALAND INTENSIVE CARE UNITS

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Background: The pharmaceutical industry, many hospital research departments and Intensive Care Units (ICU) have recognized that optimal research management requires the employment of a research coordinator (RC). The RC plays a pivotal role in conducting ethical and scientifically sound research by adhering to universally recognized clinical research principles. Consistent with these requirements it is necessary to ascertain the significant factors of this unique role and to create job satisfaction in order to employ and retain the most suitable personnel.

Objectives:

1. Measure RC job satisfaction
2. Establish what factors the RC values as important

Design: Cross-sectional cohort study

Methods: Following institutional ethics approval all members (n=69) of the Australia and New Zealand Intensive Care Research Coordinators' Interest Group were invited to complete an anonymous questionnaire using a secure website. The questionnaire contained two parts with 31 questions each: (1) McCloskey-Mueller Satisfaction Scale (MMSS) and (2) MMSS-Importance Scale (MMSS-IS). Each part addressed job structure in thirteen questions, interaction with colleagues in ten and four questions each on job worth and work description. A Likert scale of 1 to 5 was used to score satisfaction/importance with 1 representing the least and 5 the greatest satisfaction/importance.

Tables of high/low importance versus high/low satisfaction were analyzed using Wilcoxon signed-rank test to allow prioritization for role development.

Results: 71% (n=49) participants completed the survey.

SATISFACTION: 13 questions with themes such as working business hours, flexibility, level of responsibility and immediate colleagues scored high satisfaction (mean >4). 3 questions relating to childcare and compensation for weekends scored low (mean <3). Working hours, professional recognition and compensation for weekend work had the biggest range of high/low replies.

IMPORTANCE: 22 questions on importance had mean scores >4 with themes of autonomy and professional relationship with peers being the most important. 9 questions scored mean <4 and ≥3 with the lowest being availability of childcare facilities and social engagements with colleagues outside work. The biggest span of replies related to childcare.

The largest discrepancies (mean difference p <0.001) where satisfaction did not meet importance included issues of salary, hours worked, recognition, career promotion and research processes.

Conclusion: The Australasian RCs are generally satisfied with the flexibility of the work and with their immediate colleagues. They find autonomy and their co-workers of greatest importance, but are dissatisfied with weekend work, salary, lack of professional recognition and limited career opportunities.

A consensus on career and pay structure for RCs may improve their work conditions and promote professional recognition.

0097 EUTHANASIA, QUALITY OF LIFE AND RETIREMENT OF VITAL SUPPORT. STUDY IN 5 CRITICAL CARE CENTERS

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Background: The vertiginous development of the intensive medicine during the last decade creates in the units of intensive cares legal ethical problems in front of the terminal critical patient, of very difficult handling.

Objectives: To quantify opinions and conducts about methods of abstention and/or retirement from the vital support, interactions with the rest of the equipment of health and with the family, opinions about eutanasia. To establish in a logistic model variable predicting of opinions in favor of eutanasia. To compare opinions between centers, doctors and nurses, and experienced doctors and in formation.

Methods: Prospective, observacional, cross-sectional, analytical design. 130 workers included themselves 5 Units of Intensive Therapy (random sample). In 2004. It was used descriptive, inferencial statistic, linear and logistic regression. Survey closed - opened.

Results: The 86.92% consider that the abstention and/or retirement of the methods of vital support imply limits in the medical attention. The 63.07% think that the abstention and the retirement of the vital support are not equivalent. The 78.46% do not leave to certainty in clinical histories of these decisions, assuming itself like first cause the legal fear. The 36.92% do not discuss with the rest of the equipment the measures of abstention and/or retirement. The variables related to the indication of more common abstention and/or retirement are: irreversibility of the acute picture (80.76%), and inefficiency of therapeutic measures (70.00%). The abstention is more the frequently taken measurement (47.69%), whereas the retirement happens in the 40.76%. The 24.61% try always to agree with the family. The 31.53% always investigate the preferences of the patient. The 25.38% knew that the intervention of the committee of ethics in its place of work was necessary. The retirements of more frequent support were: of inotropics (50.00%) and mechanical ventilation (36.92%). The modality of mechanical ventilation retirement is brupt in 9.23%, and the progressive one in the 75.38%. After retiring the respirator, the 71.53% leave intubed the patient. The 15.38% are in favor of eutanasia. It does not have predicting in favor of eutanasia in the multivaried model, between the probable indications of abstention and/or retirement. There aren't differences of opinion in favor of eutanasia between centers, between doctors and nurses, experienced doctors and in formation (p NS). The antiquity in intensive therapy was not predicting of favorable opinion in the linear regression (p 0.6110).

Conclusions: The majority commonest considers that abstention and/or retirement of the methods of vital support imply limits in the medical attention, being the abstention, the abstention and the retirement of the vital support is not considered equivalent, does not put record in histories from fear legal; it agrees little with the family, preferences of the patient are not investigated, is not discussed with the rest of the equipment, are not in favor of eutanasia.

0098 MEDICAL EMERGENCY TEAM: ICU SANS FRONTIERS

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Objective: To evaluate the role of an Intensive Care Unit (ICU) based Medical Emergency Team(MET) in a tertiary care centre.
Background: Conflicting data exists on value of MET. Based on the needs identified in our hospital, we hypothesized that a MET formed by ICU staff would add value to quality of care of hospitalized patients. A team comprising of ICU Consultant, senior nurse and a critical care technician was designated 24 X 7 to respond to calls and service commenced in September 2004. Guidelines for MET call were based on physiological disturbances suggesting deterioration in clinical status and ward staffs were educated to activate 'MET call' through a dedicated hotline linking all nursing stations to a telephone in the ICU. Staffs were encouraged to activate MET call whenever they had 'concerns' about a patient even if they did not meet the set criteria.
Design: Prospective follow-up of patients. Data collected with focus on design of the system, criteria triggering the call, intervention done and clinical course.
Results: Average time to reach site was 6±2 minutes. Of the MET calls received (n=43), 60% were for cardiac arrest, followed by chest pain/breathlessness (20%), unresponsiveness & new onset neurological deficit/seizure (12%) and compromised airway (8%). Common interventions performed included Advanced Cardiac Life Support(ACLS), airway management, IV line insertion and fluid resuscitation. 12 patients (28%) died on site-all of who had sustained an arrest that triggered the call. 6 patients (20%) sustained hypoxic ischemic encephalopathy and had protracted ICU course before end of life decisions were taken. 13 patients were stabilized initially but died later due to primary disease process and its complications. 40% of the patients (n=12) made progress and discharged to wards.
Conclusions: The study reveals an ICU based team can intervene quickly and extend expertise beyond ICU boundaries. It would be difficult to assess morbidity or mortality benefits of MET, but our limited experience suggests that ward staff were more comfortable with the idea of a competent team being available on-demand. Our positive outcome with 40% of patients encourages us to break our walls and extend services beyond the ICU.

0099 THE BETA2 ADRENERGIC RECEPTOR PDZ BINDING MOTIF: ASSESSMENT OF ITS ROLE IN CARDIAC PROTECTION

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Background: The sympathetic nervous system enhances cardiac function by activating β adrenergic receptors (ARs). However, several studies suggest that chronic β1AR stimulation is detrimental and may play a role in the clinical deterioration of patients with congestive heart failure. In contrast, recent data indicate that β2AR activation protects the myocardium during continuous β1AR stimulation. Intracellular signaling differences may explain the divergent effects of these similar receptor subtypes. For instance, in myocytes β1ARs have been shown to couple only to stimulatory G protein (Gs). β2ARs couple first to Gs then to inhibitory G protein (Gi). In vitro studies suggest that β2AR-Gi coupling mediates cardioprotective effects of β2AR stimulation and that the β2AR PDZ binding motif facilitates β2AR-Gi coupling.
Objectives: To determine whether the β2AR PDZ binding motif is essential for cardioprotective effects of β2AR activation in vivo.
Methods: Isoproterenol is a non-specific β1AR and β2AR agonist. Administration of isoproterenol to wild type (WT) mice and mice lacking β2ARs (β2KO) allows in vivo comparison of the effects of continuous β1AR stimulation with and without β2AR activation. Similarly, isoproterenol administration to mice with a disruption of the β2AR PDZ binding motif (β2PDZ) facilitates assessment of the role of the β2AR PDZ binding motif. We administered isoproterenol (120 µg/gram/day) subcutaneously for 14 days to 8-10 week old WT, β2KO, and β2PDZ mice using osmotic mini-pumps. Left ventricle end diastolic volume (LVEDV) and left ventricle end systolic volume (LVESV) were determined using electrocardiogram (ECG)-gated magnetic resonance imaging (MRI). Stroke volume (SV) was calculated by subtracting LVESV from LVEDV. LVEDV, LVESV, and SV measurements were standardized to body weight. SV was plotted against LVEDV (Starling relationship) for an assessment of the inotropic state of each heart.
Results: The LVEDV of β2KO mice increased significantly (p=0.01, unpaired t test) after isoproterenol infusion, from 1.58±0.05 to 2.19±0.12 cubic mm/gram. The LVEDV of β2PDZ and WT mice did not increase. SV of β2KO mice also increased significantly (p=0.04, unpaired t test) after isoproterenol infusion, from 1.26±0.03 to 1.61±0.1 cubic mm/gram while SV of β2PDZ and WT mice did not increase. Hearts of β2KO mice moved upward and rightward along the Starling curve after isoproterenol infusion (left ventricular enlargement with preservation of inotropic performance) while the positions of β2PDZ and WT hearts on the Starling plot did not change.
Conclusions: The preliminary results of this investigation suggest that β2AR activation prevents gross myocardial remodeling during continuous β1AR stimulation. However, the β2PDZ binding motif does not appear to be essential for this effect of β2AR activation.

0100 BENEFICIAL EFFECTS OF DOBUTAMINE ON PULMONARY OXYGENATION IN SHEEP ENDOTOXEMIA

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Objectives: endotoxin administration induces pulmonary injury by inflammatory and hydrostatic mechanisms. Dobutamine has different systemic and pulmonary vascular effects that might modify pulmonary oxygenation in opposite ways. Our hypothesis was that dobutamine might improve PaO₂/FIO₂ through its effects on pulmonary and extrapulmonary determinants of oxygenation.
Methods: In twelve anesthetized and mechanically ventilated sheep, pulmonary and aortic catheters were inserted. We measured mean systemic and pulmonary arterial pressures (MAP and MPAP), pulmonary artery occlusion pressure (PAOP), cardiac output (CO) and arterial and mixed venous gases, hemoglobin and oxygen saturations. Pulmonary capillary pressure (Pcap) was set as pressure value at 175 msec from the start of a systolic occlusion, by the analysis of digitalized raw data. We also calculated systemic and pulmonary vascular resistances, PaO₂/FIO₂ and intrapulmonary shunt (Qs/Qt). After basal measurements, endotoxin was infused as a bolus of 5 µg/kg, followed by an infusion of 2 µg/kg/h. Then, FIO₂ was increased to 0.5 and sheep were randomized to either control or dobutamine (10 µg/kg/min) groups for two hours. Data are shown as a mean ± SD, and were analyzed by ANOVA.
Results:
 After 120' of endotoxin infusion in control group, systemic vascular resistance remain unchanged (1956 ± 320 vs. 2270 ± 622 dyne.sec/cm⁵, p = NS) and pulmonary vascular resistance increased (361 ± 152 vs. 731 ± 286 dyne.sec/cm⁵, p < 0,01). Dobutamine decreased systemic vascular resistance (2116 ± 475 vs. 1288 ± 139 dyne.sec/cm⁵, p < 0, 01) and precluded the elevation of pulmonary vascular resistance (363 ± 74 vs. 377 ± 101 dyne.sec/cm⁵, p = NS).
Conclusions: In this model of sheep endotoxemia, dobutamine preserves arterial oxygenation by improving pulmonary and extrapulmonary determinants: in addition to decreased Qs/Qt as a probable consequence of reduced Pcap, the increased CO resulted in higher SvO₂. Dobutamine so behaves as a systemic and pulmonary vasodilator.

	group	basal	endotoxin 30'	endotoxin 60'	endotoxin 90'	endotoxin 120'
PaO ₂ /FIO ₂	Control	329 ± 32	222 ± 116*	209 ± 143*	195 ± 128*	202 ± 142*
	Dobutamine	356 ± 36	409 ± 70§	423 ± 54§	442 ± 45§	440 ± 47*§
Qs/Qt (%)	Control	20 ± 6	21 ± 15	27 ± 21	29 ± 19	28 ± 21
	Dobutamine	18 ± 8	7 ± 3*§	8 ± 3*§	7 ± 3*§	7 ± 3*§
SvO ₂ (%)	Control	64 ± 4	58 ± 13	53 ± 17	52 ± 15	44 ± 17*
	Dobutamine	61 ± 6	68 ± 7*	70 ± 11	71 ± 10§	70 ± 11§
CO (l/min)	Control	3.72 ± 0.50	2.92 ± 0.68*	3.14 ± 1.06	3.00 ± 1.06	2.52 ± 0.67*
	Dobutamine	3.41 ± 0.77	3.50 ± 0.95	4.07 ± 1.11	4.04 ± 1.29	3.94 ± 0.98§
MAP (mmHg)	Control	97 ± 12	92 ± 26	82 ± 28	79 ± 25*	81 ± 29
	Dobutamine	96 ± 9	70 ± 9*	69 ± 16*	71 ± 16*	72 ± 12*
MPAP (mmHg)	Control	26 ± 4	32 ± 4*	28 ± 4	31 ± 5	30 ± 4*
	Dobutamine	24 ± 3	24 ± 6§	22 ± 5§	23 ± 6§	24 ± 7
PAOP (mmHg)	Control	10 ± 4	10 ± 5	11 ± 4	9 ± 4	9 ± 5
	Dobutamine	9 ± 4	7 ± 8	8 ± 6	6 ± 6	7 ± 6
Pcap (mmHg)	Control	19 ± 4	24 ± 6*	20 ± 7	20 ± 8	20 ± 7
	Dobutamine	17 ± 4	15 ± 7§	14 ± 5	14 ± 6	14 ± 7

* p < 0,05 vs. basal. § p < 0,05 vs. control group

0102 PERIOPERATIVE GLUCOCORTICOID ADMINISTRATION FOR PREVENTION OF SYSTEM ORGAN FAILURE IN PATIENTS UNDERGOING ESOPHAGEAL RESECTION FOR ESOPHAGEAL CARCINOMA

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Background: Preoperative glucocorticoid administration has been proposed to reducing postoperative morbidity and mortality. It isn't widely used before esophageal resection due incomplete knowledge of its effectiveness and possible adverse effects.

Objective: it was to assess the effects of preoperative glucocorticoid administration in adults underwent esophageal resection for esophageal carcinoma.

Search strategy: 3084 Studies were identified by searching the Cochrane Controlled Trials Register, MEDLINE (1966 - 2004), EMBASE (1988 - 2004), CancerLit (1993 - 2004), SCIELO (1993-2004) and Cochrane Library and handsearching from relevant articles. There were no language restrictions.

Selection criteria: This review included randomised or quasi-randomised studies of patients with potentially resectable carcinomas of the esophagus (of any histologic type) that compare glucocorticoid with placebo before surgeries.

Data collection & analysis: Data were extracted by two independent reviewers, and the trial quality was assessed using both the Jadad scoring and Detsky checklist. Sensitivity analysis was planned to explore sources of heterogeneity where heterogeneity existed. The factors hypothesized a priori included, quality of study and biological effective corticosteroid dose. The primary outcome of interest was overall mortality. Relative risk (RR) and weight mean difference (WMD) with 95% confidence limits were used to assess the significance of the difference between the treatment arms.

Results: There were four randomised trials involving 146 patients. There weren't differences in postoperative mortality, anastomotic leakage and postoperative hospital stay between glucocorticoid and placebo groups. There was a decrease in postoperative respiratory complications (RR = 0,23; 95% CI 0,08 to 0,65; p = 0,005), multiple postoperative complications (RR = 0,34; 95% CI 0,16 to 0,71; p = 0,004) and postoperative plasma levels of interleukin-6 (WMD = -374,72; 95% CI -452,99 to -296,45; p = 0,00001) with preoperative glucocorticoid administration. There was an increase in postoperative PaO₂/FiO₂ ratio (WMD = 13,62; 95% CI 9,8 to 17,45; p = 0,00001) with preoperative glucocorticoid administration.

Conclusion: Prophylactic administration of glucocorticoids is associated with a decrease in postoperative complications. However, there was no clear evidence that preoperative glucocorticoid improves the survival after esophagectomy.

0103 RELATIONSHIP BETWEEN CENTRAL VENOUS OXYGEN SATURATION AND URINARY-ARTERIAL PCO₂ IN CRITICALLY ILL PATIENTS

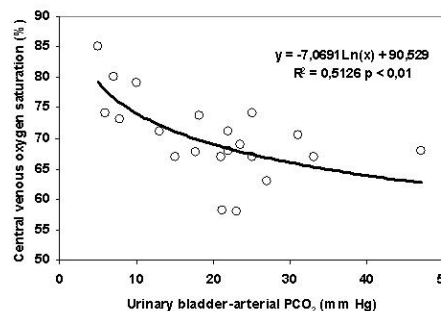
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Objectives: Recent investigations suggest that urinary bladder gases measured with fiberoptic technology might track changes in tissue perfusion. Our hypothesis was that urinary PCO₂ correlates with central venous oxygen saturation (SvO₂), a well-known goal of resuscitation.

Methods: We included 21 consecutive critically ill patients that had central venous and urinary bladder (Foley) catheters in place. Foley catheter was clamped during 30 minutes. Then, after discarding dead space volume, urine was sampled to measure PCO₂. Simultaneously, blood gases and oxygen saturations were measured in arterial and central venous blood. Patients with intra-abdominal pressure higher than 20 mm Hg were excluded, for local perfusion might be reduced irrespective of systemic oxygen transport. Urinary-arterial PCO₂ gradient (ΔPCO₂) was calculated. Least square regression was used to analyze the relation between SvO₂ and ΔPCO₂, and the function that showed the best determination coefficient (the best R²) was chosen.

Results: Two patients were excluded because of intraabdominal hypertension. In the remaining 19 patients, SvO₂ and ΔPCO₂ showed a significant correlation.

Conclusions: These results suggest that urinary ΔPCO₂ might be useful as an index of systemic tissue perfusion. Further studies are needed to confirm these preliminary data.



0104 USE OF NT-PROBNP AS A PREDICTOR OF VENTILATION TIME, INOTROPIC USE, POST-OPERATIVE ATRIAL FIBRILLATION AND DURATION OF INTENSIVE CARE STAY IN THE POST-OPERATIVE CARDIAC SURGICAL PATIENT

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Background

The assay NT-proBNP is a prognostic indicator in heart failure and myocardial infarction, and may be used to guide therapy in heart failure. Still in its infancy, NT-proBNP has many untested domains and the role of this peptide in intensive care remains undefined. A patient with impaired left ventricular function is more likely to require inotropes and prolonged ventilation after cardiac surgery. The objective of this study was to assess the use of NT-proBNP and troponin T in the post bypass cardiac patient, as an aid to predict the following end points: (i) duration of ventilation, (ii) inotropic requirements, (iii) post operative atrial fibrillation, (iv) duration of intensive care stay, (v) mortality at 6 months.

Methods

A prospective observational study of 118 adult patients undergoing coronary artery bypass grafting and/or valvular surgery at Waikato Hospital from July to December 2003. Exclusion criteria included acute instability requiring an urgent operation or the inability to give consent. Blood samples for NT-ProBNP and Troponin T were taken within 48 hours prior to operation and then 12, 36 and 72 hours post-operatively. Clinicians were blinded to the results.

Results

Pre-operative NT-proBNP levels were positively correlated with the ventilation time (r = 0.46, p = 0.015), length of stay in ICU (r = 0.59, p = 0.001), and total peri-operative noradrenaline dose (r = 0.55, p = 0.003). The strongest correlation was found between ventilation time and 36hr NT-proBNP levels (r = 0.73, p < 0.001). The type of operation was strongly associated with the pre-operative NT-proBNP level (CAVG=100 pmol/L, AVR=584 pmol/L, MVR= 245 pmol/L, >1 valve=1057 pmol/L). The subgroup of patients who went on to require milrinone (n = 16) had higher pre-operative NT-proBNP levels (860 pmol/L, vs 122 pmol/L, p = 0.004, t-test). Pre-operative troponin-T levels did not correlate significantly with ventilation time, length of stay in ICU, or noradrenaline requirements. The 12 hr post-operative troponin-T level correlated modestly with length of ventilation (r = 0.39, p < 0.001), and length of ICU stay (r = 0.29, p = 0.001). There was no mortality intra-operatively or immediately post-operatively, and two deaths at 6 months.

Conclusions

Pre-operative NT-proBNP levels correlate with ICU stay, ventilation time, operation type, ejection fraction, intraoperative and postoperative noradrenaline and milrinone requirements and pre-operative atrial fibrillation. NT-proBNP predicts milrinone need better than predicting noradrenaline need. NT-proBNP rises more in patients who require noradrenaline post-operatively. There is no correlation between NT-proBNP and the occurrence of new post-operative atrial fibrillation. There is no useful correlation with either NT-proBNP or troponin T, to 6 month mortality.

0105 EVIDENCE-BASED CLINICAL PATHWAY FOR ACUTE VIRAL BRONCHIOLITIS - ACCESSIBLE AT THE HOSPITAL WEB

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Background: Bronchiolitis is the most common lower tract infection in infants and young children worldwide. Respiratory syncytial virus(RSV) is the etiological agent in more than 80% of bronchiolitis. Hospital admission due to acute viral bronchiolitis (AVB) occurs in 1 out of 100 healthy children and more than 70% are children under the age of 1 year. Mortality rate varies in different studies from 0,1% up to 2%.

The evidence based clinical pathway for acute viral bronchiolitis, was developed in our pediatric unit during spring 2003 and was ready for implementation and clinical practice in front of winter season 2003/2004.

Objective:

To maintain or enhance the quality of care and decrease unnecessary variation in care to infants suffering from AVB.

To establish a collaborative, systems approach to care delivery

To bridge the gap between knowledge and practice in the pediatric department.

To improve access to evidence-based management and guidelines in clinical practice.

Methods: A multidisciplinary team including pediatricians, pulmonologist, neonatologist, physiotherapist, nurses and an external facilitator was established as a Clinical pathway team. Together with the quality department and the research and education department, they developed the pathway. Support was given from IT and centre of economics and analysis in the hospital. The team developed a process of care from evidence based medicine and nursing to increase the likelihood of positive outcomes and effective use of available resources..

To make the clinical pathway accessible to health care staff from all computers in the hospital, an electronic based pathway at the hospital web was established. The computerized electronic pathway also gives hyperlinks to national guidelines, procedures, background information, medication, patient data, parent information and parent education, cost per patient, diagnostic codes (DRG).

Results: Table.

Year	NOpatients	Length of stay	Cost per pat	Income per pat	tot average per pat
2002	157	3,5 days	3427 \$	2895 \$	-532 \$ (neg)
2003	86	3,1 days	3003 \$	2903 \$	-100 \$ (neg)
2004	175	2,6 days	2763 \$	3220 \$	+458 \$ (pos)

Conclusion: The evidence based clinical pathway for AVB in our pediatric unit, was the first clinical pathway based on this particular method in our hospital. In addition to measured results, there is a consent that an evidence based clinical pathway assures that every child receives optimal care, unnecessary variation in care is decreased and the quality of care is enhanced. We also experienced the importance and positive challenges in collaboration in multidisciplinary teams. Implementation in clinical practice was simplified due to the computerized pathway that gave improved access. Length of stay was reduced 26% from 2002-2004, after implementation of clinical pathway. Economic result is enhanced with 990\$ per patient in the same period.

0106 IS IT POSSIBLE TO ORGANIZE POWERNAPPING DURING NIGHT SHIFT IN AN ICU?

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BACKGROUND/OBJECTIVES: Night shifts are an unavoidable fact when working in an ICU. Nurses complaining of various problems and symptoms in connection with night shifts made us realize that changes had to be done for nurses to function better in night shifts. It was necessary to ensure keeping the existing staff as well as to be able to recruit new nurses to the ward.

Complains from nurses in night shifts were characterized by feelings of fatigue between 3-6 am, reduced sleep quality causing increased use of sleeping medication, disrupted circadian rhythm, digestive trouble and reduced performance efficiency.

The ward consists of 6 intensive care stations, 50 staff members. Some nurses are working in 3 shifts and some are working night, evening or dayshifts only. A night shift lasts 8,5 hour. The average numbers of night shifts per person are 4-5 during 4 weeks. The nightshifts are manned by 4 registered nurses (one having the co-operative function), 1 nurse-assistant and 1 medical student (temporary substitute).

METHODS: All staff members doing nightshifts were included in the powernapping project, which were ongoing during 3 month in the summer of 2002. The length of the nap were planned to be 29 minutes - a break already included in the night shift and paid for by the employee.

Consideration was made as to when to schedule the nap. In that respect the nurses own opinions and the complains made about night shifts were used.

Furthermore practical nursing procedures during the night shift had to be evaluated as well as where to powernap and how to nap.

The nurse in charge during the nightshift was responsible for co-ordinating the powernap and register problems in getting through the powernapping period.

RESULTS: Powernapping was not accomplished 7 nights during the 3 month project period and 14 individuals were registered as not being able to powernap in particular nights. All staff members no matter degree, were able to powernap. The individuals showed a great responsibility in organizing and planning the night shift in order to be able to powernap. Special nursing procedures were transferred to either the day or the evening shift without any consequences for the quality of the nursing.

The powernapping location should be close to the ward.

The powernap was scheduled from 3-6 am. Feedback concerning the length of the powernap (29 minutes) was positive.

After powernapping during night shifts all staff involved reported increased wellbeing, reduced tiredness, acceptable sleeping rhythm (insomnia not reported as a side effect) less digestive problems, better performance efficiency and a feeling of the night shift being much shorter.

CONCLUSION: Powernapping is indeed possible to organize effectively provided each individual nurse show responsibility and give priority to the issue of powernapping. Another factor necessary is a practical and organized system for the project to work. Today powernapping is a routine in our ICU.

0111 THE PRESSOR RESPONSE AND AIRWAY EFFECTS OF CRICOID PRESSURE DURING INDUCTION OF GENERAL ANESTHESIA

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Background: Cricoid pressure (CP) has been used to protect the patient from regurgitation and gastric insufflation. Because the hemodynamic effects of CP have not been evaluated independently, we designed this prospective study.

Method: Eighty ASA I adult patients were prospectively included in the study. Patients were randomly divided into Cricoid and Placebo groups. In the Cricoid group, after the induction of anesthesia, bimanual CP was performed, and in the Control group, simple placement of hands without exerting pressure was performed. Peak inspiratory pressure and exhaled tidal volume were recorded before and during the application of CP. Arterial blood pressure and heart rate were recorded before and after application of CP. The data were compared between and within groups by using the mixed-design analysis of variance.

Results: Peak inspiratory pressure increased and tidal volume decreased significantly after the application of CP compared with the Control group and baseline values. Arterial blood pressure and heart rate increased significantly after the application of CP compared with the baseline values and with those of the Control group.

Conclusion: The result of this study shows that CP can cause a relatively strong pressor response, and so in old patients with borderline heart disease we must decide about using CP only if it necessary.

0113 CRITICALLY ILL OBSTETRIC AND GYNECOLOGY PATIENTS: A PROSPECTIVE AUDIT OF 260 CASES

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INTRODUCTION

Critically ill obstetrics and gynaecology (O&G) patients comprise a substantial subset of general intensive care unit (ICU) admissions. Most data are retrospective and numerically restricted. We describe a series of 260 such cases.

METHOD

Prospective study conducted over a 2 year period in the Surgical ICU at King Edward VIII Hospital, South Africa. Data captured included demographic details, clinical assessment, investigations, treatment, variables required for APACHE II score and patient outcome. Cases were categorised into one of three groups: Obstetric hypertensive (G I), Obstetric non-hypertensive (G II) and Gynaecology (G III). The data reported here represents a portion of a larger database, which has been utilised to develop and validate an outcome prediction model for such patients. Institutional ethics approval was obtained.

RESULTS

There were 260 O&G admissions, representing 18.5% of the ICU population. The majority of the cases were obstetric (83, 8%, n=218). The intensive care unit utilisation by obstetric patients was 13.9/1000 deliveries (195 obstetric patients, 14 054 deliveries). GI, GII and GIII comprised 55.3%, 28.4% and 16.2% of the O&G cases respectively. The majority of patients were young (mean age 27 years) and of low parity. However the gynaecology cases were generally older- a mean age of 34 years compared to 24 years among the obstetric cohort. Ninety-two% of the cases were mechanically ventilated. The mean ICU and hospital stay was 5.5 and 15.8 days respectively. There was no significant difference in mean gestation, parity or duration of ICU stay in survivors compared to nonsurvivors for each of the subgroups. The majority of GI patients had eclampsia (68.1%, 98 of 144 admissions). Infections (64.9%, 48 of 74 cases) comprised the commonest pathology in GII and abortions featured most frequently in GIII (33%, 14 of 42 cases). APACHE II score ranged from 7 to 43. The mean APACHE II score was significantly higher in non survivors compared to survivors for all patient subgroups (p<0.0001). The mean APACHE II score among survivors was 17, 18 and 18 for GI, GII and GIII respectively. Among the non survivors the mean APACHE II score was 28, 29 and 29 for GI, GII and GIII. The APACHE II model predicted mortality rates of 32.2%, 49.5% and 48.7% for GI, GII and GIII respectively. The actual mortality for GI, GII and GIII was 23.4%, 43.2% and 42.9% respectively. The 3 subsets of O&G patients demonstrated variable mortality despite exhibiting similar mean APACHE II scores. The area under the ROC curve was much lower in GI compared to GII and GIII.

CONCLUSION

O&G patients represent a substantial proportion of the ICU population. The APACHE II model does not perform equally well in the 3 subsets described. Critically ill O&G patients require an outcome prediction tool developed specifically for this unique population.

0114 IMMUNOLOGIC STATUS IN PEDIATRIC CARDIOSURGICAL PATIENTS WITH CHYLOTHORAX

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Objectives: To evaluate immunologic status in pediatric cardiosurgical patients with prolonged chylothorax.

Methods: In 16 pediatric cardiac patients with postoperative chylothorax persisting 7 days, immunoglobulin (Ig) levels, cellular immunity, and phagocytic activity were evaluated. Patients were on total parenteral nutrition, they received colloids for replacement of chylous losses, and antibiotics for treatment of infection.

Results: The IgG, IgM and IgA levels did not significantly differ from normal values, although 25% of patients had IgG levels below normal range. The relative and absolute counts of peripheral blood lymphocytes were lower (p<0,001) than the normal values. Absolute numbers of blood T-lymphocytes (CD3+), helper/inducer T-cells (CD4+), and suppressor/cytotoxic T-cells (CD8+) were also below normal range (p<0,001); however, their relative percentages and a CD4+/CD8+ ratio were within normal limits. The percentage and absolute number of B-lymphocytes (CD19+) and natural killer cells (CD16+), phagocytic and metabolic activity of polymorphonuclear leukocytes did not differ from normal values.

Conclusions: Persisting chylothorax results in T-cell lymphopenia with proportional decline of CD4+ and CD8+ cells. Hypogammaglobulinemia observed in other studies has not been detected in this series probably due to the plasma administered. Effects of these immunologic alterations developing infections are unknown.

0115 E-LEARNING (ELECTRONIC-LEARNING) AS A METHOD IN THE TRAINING OF NURSING STAFF AT AN ICU

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Background and objectives:

E-learning is a highly useful and effective method to guide and instruct in specific nursing procedures or in assembling of technical equipment.

In all intensive care units, there is a huge assignment in educating and guiding new and experienced staff. For the newly arrived there is a tremendous amount of new equipment and new procedures to learn. For the experienced nurses there is continuously new equipment and new procedures to get acquainted with. Some procedures can be difficult to remember because they are complicated or only used rarely. It can be difficult to keep abreast of it all. Most units have books and briefcases with instructions and directions but often they can be difficult and time-consuming to use. Therefore we have developed a new learning- and updating method, *Intensive E-learning*, a computer program with short and clear instructions and directions that is available to all staff 24 hours a day.

Method:

Intensive E-learning is developed on a personnel computer and it has been an objective that the method is simple and easy to work with and to extend and further develop. Intensive E-learning has been elaborated as follows:

1. With a digital camera a series of pictures has been taken to illustrate how to assemble technical equipment or to illustrate a nursing procedure step by step.
2. The series of pictures are subsequently edited in a photo editing program, so they appear in a web-format where they take up as little space on the computer as possible and also ensure a faster execution for the users.
3. The series of pictures are set up in a PowerPoint show and afterward short, relevant and pedagogical instructions are added to the pictures in small textboxes.
4. The series are linked together by means of an html-page: FrontPage.

Result and conclusion:

There is developed a system, Intensive E-learning, which consists of several interactive series of pictures, that is installed on personal computers next to the patients which are immediately available for the staff at all time. Intensive E-learning gives easy, educational and clear directions of different nursing procedures and instructions on how to assemble technical equipment. The advantage of Intensive E-learning is that the intensive Care Unit obtains a higher level of quality assurance in favour of the patients. For the staff the directions and instructions are easier to find and use than manuals in books and briefcases because pictures often illustrate better than the written language how equipment is assembled or procedures executed.

The staff is this way given an alternative option for quick directions and instructions during the daytime but also during evening- and nightshifts where colleagues to ask for advice is less available. In spare time the staff has the possibility of clicking through the series and revive rare and complicated procedures.

0116 CARDIAC RICKETTSIOSIS WITH ECHOCARDIOGRAPHIC CHANGES TREATED ACCORDING TO SURVIVING SEPSIS CAMPAIGN (SSC) GUIDELINES

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Background: Eruptive rickettsiosis is found worldwide. Major signs are fever, headache, myalgia, tache noir and exanthema. CNS alterations that regress without sequelae may be present. Cardiovascular function may be affected, with hypotension, EKG signs of endothelitis, and coagulopathy.¹ The SSC Guidelines provide evidence-based recommendations for the management of patients with severe sepsis.²

We report a case of an atypical presentation of rickettsiosis successfully treated following SSC Guidelines.

Case Report: A 56 yo Caucasian male without coexisting pathology and 5 days' fever of unknown origin was admitted for tests for suspicion of rickettsiosis: fever, exanthema, hepatomegaly with increased enzymes. His general condition worsened and 2 days later, he was admitted to ICU for Multiple Organ Dysfunction. "Tache noir" scrotal lesion and exanthema were observed. Blood samples (BS) were taken for culture. Antibiotic therapy (Chloramphenicol/ceftazidime) was initiated within one hour. Mechanical ventilation (TV 6ml/kg) was started together with crystalloid volemic expansion. Hemodynamics stabilized. BS were taken for EBV Ab, CMV, VDRL, TPHA, leptospira Ab and rickettsia Ab. Two days later, only rickettsia Ab IIF was positive. Chloramphenicol therapy was confirmed, piperacillin-tazobactam replaced ceftazidime. Within 24 hrs of ICU admission, cardio-specific enzymes increased without hemodynamic repercussions. Anterior EKG T-wave inversion was seen.

On the basis of laboratory and clinical data, drotrecogin alpha (activated) infusion was initiated at 24 µg/kg/h for 96 h. Clinical improvement was seen in the next 96 h: Hemodynamic stability; progressive PaO₂/FiO₂ ratio improvement; normalization of WBC, bilirubin and creatinine; prothrombin activity and platelet count rose; and myocardial specific enzymes lowered. One week after ICU admission echocardiography showed apical akinesia with slight dilatation and dynamic obstruction of left ventricular flow with elevated telesystolic (170mmHg) gradient compatible with coronary vasculitis. On day 9, echocardiography showed telesystolic gradient = 100mmHg. After 13 days in ICU he was weaned from ventilation and 2 days later, gradient = 40mmHg. Glycemia was always maintained < 150 mg/dl during ICU stay. On day 18 he was transferred to cardiology with echocardiographic normalization of parietal kinetics anomalies and resolution of dynamic flow obstruction.

Patient was discharged without sequelae on day 28.

Conclusion: Microvascular bed compromise put this patient at high risk of death.

The management and outcome of this case suggests that the prompt application of SSC Bundles may have a fundamental role in the management of this disease.

References:

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2 Dellinger R et al. Surviving Sepsis Campaign Guidelines. Int Care Med. 2004 30:536-555

0118 HEMODYNAMIC AND CLINICAL OUTCOME WITH CRYSTALLOID VS PENTASTARCH RESUSCITATION IN HIGH RISK SURGICAL PATIENTS

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Background: There is limited outcome documentation comparing crystalloids with pentastarch in high-risk surgical settings.

Methods: High-risk surgery was defined based on ASA grade, extensive malignancy, sepsis and abdominal injury in 50 patients undergoing major abdominal surgery. Patients were randomized to receive as intravenous fluids either only Ringer's lactate (RL group, n=24) or combined RL and pentastarch (HES group, n=26) from induction of anesthesia (T0) till 72 h post-op. Non-invasive monitoring using bio-impedance technique was carried out during this period. Monitored parameters, as primary end points, were cardiac index (CI), stroke volume (SV) systemic vascular resistance (SVR) and base thoracic impedance (Z0). Fluid administration was guided by clinical hemodynamic parameters like heart rate, mean arterial pressure, central venous pressure and urine output. In-hospital mortality, ICU stay and hospital bills were compared between groups as secondary end-points.

Results: Groups were comparable in age, sex, co-morbidity distribution and clinical hemodynamic parameters at T0. CI (L/min.m²) values were similar at T0 (RL 1.4±0.3, HES 1.5±0.3) and rose significantly to similar levels at 72h (RL 2.3±1.1, HES 2.5±0.8) in both groups. However, during the first 12h of study CI values in HES was significantly greater. SV (ml); T0 values: RL 22±3, HES 23±5, p>0.05; 72h values: RL 34±16, HES 45±8, p<0.005) and SVR (dyne/s.cm⁵; T0 values: RL 3405±760, HES 2490±876, p<0.05; 72 h values: RL 2116±810, HES 1447±378, p<0.005) changed in similar directions with significantly greater and lower final values respectively in the HES group. Z0 (ohm), inversely related to lung water, was initially higher in RL group (28±4 vs. HES 24±5, p<0.01) but later decreased. Z0 gradually increased in the HES group and was significantly higher at 72 hours (RL 24±1, HES 32±9, p<0.05). ICU stay (RL 3.96±1.2, HES 2.4±1.9 d, p<0.005) and in-hospital mortality (RL 11/24, HES 5/26, p<0.05) were significantly lower in HES group, albeit the study was not designed to compare mortality as a primary end-point. Hospitalization costs (RL \$1668±407, HES \$ 1574±520, p=0.76) were similar between groups.

Conclusions: In high-risk surgical patients resuscitated with HES or RL to similar clinical hemodynamic end points, non-invasive hemodynamic monitoring showed significant differences in favour of HES. Changes in CI, SV and SVR were in similar directions but Z0 progressed in different directions in both groups. Secondary endpoints of ICU stay and in-hospital mortality also were favourable in HES group. Despite higher acquisition cost of HES over RL, hospitalization cost did not increase in HES group.

0119 RETROSPECTIVE COMPARISON OF NONINVASIVE HEMODYNAMIC PARAMETERS BETWEEN SURVIVORS AND NON-SURVIVORS IN HIGH-RISK SURGICAL PATIENTS

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Background: This is a retrospective analysis of hemodynamic data collected during a prospective study assessing hemodynamic changes in high-risk surgical patients receiving either only Ringer's lactate (RL group) or a combination of RL and pentastarch (HES group) as intravenous fluids.

Methods: High-risk surgery was defined based on ASA grade, extensive malignancy, sepsis and abdominal injury in 50 patients undergoing major abdominal surgery. Patients were randomized to RL group (n=24) or HES group (n=26) and monitored from induction of anesthesia (T0) till 72 h post-op. Fluid administration was guided by clinical parameters like heart rate, mean arterial pressure, central venous pressure and urine output. Non-invasive monitoring using bio-impedance technique was carried out during this period. Monitored parameters, as primary end points, were cardiac index (CI), stroke volume (SV) systemic vascular resistance (SVR) and base thoracic impedance (Z0). The prospective comparison between groups is presented elsewhere. In this study hemodynamic data of all survivors (S group) or non-survivors (NonS group) were compared retrospectively, irrespective of their fluid therapy.

Results: Out of 50, sixteen patients (11 from RL group and 5 from HES group; p<0.05) died and 34 were discharged alive. Over 72 hours:- CI rose in S from 1.6±0.2 to 2.8±0.7 L/min.m² and in NonS from 1.2±0.3 to 1.6±0.8. SV rose from 21.6±4.1 to 46.4±8.3 ml in S but remained unchanged (from 23.1±4.6 to 24.7±7.6) in NonS. SVR decreased in S from 2569±718 to 1366±179 dynes.sec/cm⁵ and from 3238±936 to 2565±823 in NonS. Z0, inversely related to extra-vascular lung water, increased in S from 23.8±4.6 to 34.6±5.2 ohm but decreased from 30.8±2.2 to 13.8±3.2 in NonS. All hemodynamic parameters were significantly different at 72 h between groups (p<0.001). At T0, CI was higher (p<0.001), SVR was lower (p<0.05) and Z0 was lower (p<0.001) in S. As time progressed, the trend in difference in initial values was enhanced in CI, SV and SVR while it was reversed in Z0 between the S and NonS.

Conclusion: Noninvasive monitoring retrospectively showed distinctly different patterns of changes in CI, SV, SVR and Z0 between survivors and non-survivors in patients undergoing high-risk abdominal surgery.

0121 A PROTEOMIC STUDY OF SEPSIS CAUSED BY GRAM-NEGATIVE BACTERIA

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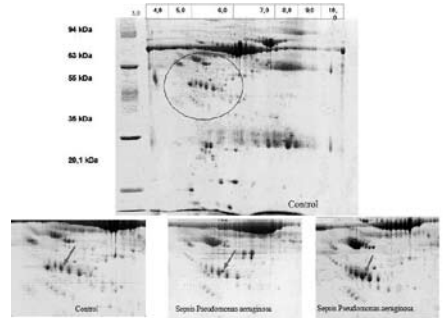
BACKGROUND: Sepsis, characterized by intense reaction of the organism, due to infection, particularly of the inflammatory and coagulation systems, is a common illness, of high cost treatment and deaths. Thus, new technologies for the detection of sepsis early-stages are urgently needed.

OBJECTIVES: Identify serum proteomic patterns that would distinguish severe sepsis patients from healthy controls.

METHODS: Three ICU patients which matched the criteria (ACCP/SCCM) for sepsis diagnosis were selected: Male/ Female: 1 / 2; mean/ range age of 81,1 / 68 - 89 y; mean LOS_ICU of 15 ± 25 d; 28 day mortality (dead / total / %) = 2 / 3 / 66%; mean APACHE II of 22 (20 - 26) and mean SOFA = 6 (5 - 8); VAP (Pseudomonas aeruginosa), (3). Serum samples were submitted to isoelectric focusing in the first dimension - pH 3 - 10NL and in the second to 12.5% 2D-SDS-PAGE. Gels were stained with Coomassie Blue and the final image analyzed using the Image Master Platinum software (Amersham). Selected spots were cut, washed, dried, swollen with trypsin solution and incubated for 16 hours at 37o C. The peptides were extracted, concentrated and analyzed by mass spectrometry in a MALDI-TOF Voyager DE-PRO instrument (ABI). Peptide maps were processed (MS-Fit, Protein Prospector) for protein identification in the NCBI Data Bank.

RESULTS: Image analyses of the gels showed the presence of spots only in patients with sepsis (arrows) and the presence of other spots with different intensities in sepsis and controls. Peptide mass fingerprinting of some of these spots identified actin, zinc-finger protein, matrin 3, haptoglobin-2 and apolipoprotein A1.

CONCLUSIONS: Actin, a major component of the cytoskeleton is found in cellular injury as in apoptosis; zinc-finger protein is expressed in cellular injury as a cytoprotective protein with anti-apoptosis activity; matrin 3 functions in transcription and interacts with other proteins of the cellular matrix; apolipoprotein A1 is capable of directly inactivating endotoxin (protein-endotoxin interaction); haptoglobin-2 present during the acute phase reaction. These findings justify the use of proteomic techniques as a screening tool for the study of all stages of sepsis in high-risk patients.



0122 INTRA-ABDOMINAL HYPERTENSION IN CRITICAL CARE

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BACKGROUND: The abdominal compartment syndrome (ACS) is the clinical syndrome resulting from a persistent increase in intra abdominal pressure (IAP). This is an increasingly recognized complication on both medical and surgical patients in the intensive Care Unit (ICU). This syndrome has been described in a variety of clinical scenarios and it is a result of a persistent elevation in IAP characterized by graded organ system dysfunction. Manifestations of IAP include cardiovascular, pulmonary, renal, splachnic and neurologic impairment. The diagnosis requires a high level of clinical suspicion combined with an increased intra abdominal pressure, usually obtained via urinary bladder pressure measurement. The syndrome of hypertension intrabdominal and the ACS can significantly contribute to the morbidity and mortality of both medical and surgical patient alike in the ICU.

OBJECTIVE: The objective of this study was to evaluate the incidence of the intrabdominal hypertension and its correlation with some physiological variables in ICU of the Hospital Loayza- Lima Peru.

METHODS: 60 patients were studied within the first 24 hours of the entrance to the ICU. The measurement technique used was the Kron method, which measured IAP at bedside with the use of an indwelling Foley catheter, being made three consecutive measurements, the value obtained in cm of water, became to mmHg.

RESULTS: Half of the patients were older than 60 years, 2/3 were women. 66,7% of the patients were put under mechanical ventilation, 80% of the patients had high values of alveolo-arterial gradient. A third part of the patients presented shock before its entrance to ICU. A third part of the patients presented lactate levels > 2 mMol/L. 46.7% were surgical patient and 40% of the patients presented score APACHE II > 20. The intrabdominal pressure had an average of 6,19 mmHg in the series studied. The 13,3% presented intrabdominal hypertension (IAP more than 10 mmHg), being all of them patients with evident abdominal pathology: acute pancreatitis, intestinal obstruction and multiple trauma. The bivaried analysis between the intrabdominal pressure and the variables of age, sex, admission reason, previous shock, level of central venous pressure, previous surgery, renal function and mechanical ventilation and they did not show any correlation. It was observed that greater values of intrabdominal pressure appear in patients with greater alveolo-arterial gradient and dynamic compliance pulmonary minor, without showing statistical significance. The values of lactate and score APACHE II have a direct significative correlation with high values of intrabdominal pressure (p = 0,05).

CONCLUSIONS: patients with evident abdominal pathology have an incidence of intrabdominal hypertension of 13,3%, in our ICU. There was a significant correlation with parameters that express severity of illness in the patients: APACHE II > 20 and lactate levels > 2mMol/L.

0123 MORTALITY IN PATIENTS WITH INTRABDOMINAL HYPERTENSION IN CRITICAL CARE

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BACKGROUND:
 The syndrome of hypertension intraabdominal (HIA) and the abdominal compartment syndrome can significantly contribute to the morbidity and mortality of both medical and surgical patient alike in the Intensive Critical Unit (ICU).
 The HIA has been described in a variety the clinical scenarios and is associated gradually to disfunción of diverse organs.
 The work was designed for to determine the predictive factors associate to develop intraabdominal hypertension and if this is an independent factor of mortality in ICU.

METHODS:
 60 patients were studied in the multipurpose ICU of the Loayza Hospital
 The measurement of the intraabdominal pressure was made transvesical. The data registered to the entrance and discharge of the patient. The data were process, it was correlated the intra abdominal pressure with the diverse physiological variables.

RESULTS:
 The sample was of 60 patients of who 63.3% are women and 36.2% men. 24.1% of the patients presented HIA. The relative risk (RR) of death for the patients with HIA was of 3.14, with an interval of confidence (IC) 95%, 1,85 – 5,33 and p = 0,000126.
 It was observed that greater values of intraabdominal pressure appear in patients with previous shock (p = 0.00891), high lactate level (p=0,0271), previous surgery (p< 0,05)
 The patients with severe acute pancreatitis and abdominal surgery had greater relative risk to develop HIA (RR 1,89; IC 95%; 3,25 – 10,68; p= 0,00043; RR 4,5; IC 95%; 1,4 – 14,5; p <0,05 respectively)
 There was no significant difference in the degree of severity, evaluated by score APACHE II (p=0,591). The patients with HIA presented minor hospital stay (p=0,00026) associated to a precocious mortality in ICU.

Conclusions:
 The presence of HIA to the entrance is associated with a relative risk of death in ICU of 3,14. The state of previous shock, high lactate levels and previous surgery the factors of risk found to develop HIA.

0124 POLICY OF BLOOD TRANSFUSION IN CHILDRENZ Zonis¹, Y Dementiev¹¹ Western Galilee Hospital, Nahariya, Israel; ² Bruce Rappaport Faculty of Medicine, Haifa, Israel

Background: The use of blood products for better oxygenation and loss of blood volume had decreased in the last years, with the increase in awareness to side effects and complications of blood products.

Aims: Check the different indication for giving blood products in children by the service/department the child was admitted to (i.e. Pediatric (ped) surgery, Pediatric intensive care unit Pediatric ward), the different clinical criteria (i.e. tachycardia, pallor, saturation, Hemoglobin (Hb) and drop in Hb) and by the physician specialty (surgeon, pediatrician, intensive care physician).

Methods: A Questionnaire was sent to 23 hospitals (total 231 Questionnaires). The Questionnaires included medical scenarios in which the physician chose Hb level of which they would have transfused.

Statistical analysis was performed by using Wilcoxon rank sum test, and Fisher's exact test when necessary.

Results: Only 127 questionnaires were answered (54.9 %).

There was correlation between Saturation measured and frequency of PRBC transfusion (P=0.004).

There was correlation between tachycardia and frequency of packed red blood cell transfusion (P=0.045).

The larger (number of beds) the pediatric intensive care unit is, the greater emphasis was on the Hb , and greater number of transfusions were given. (P=0.004).

In the pediatric intensive care units saturation is of greater value in the decision of giving PRBC (P=0.002)

All physicians consider tachycardia as an important value in decision about PRBC transfusion (Pediatricians 48.6%, Pediatric intensive care unit physicians 38.5% Pediatric surgery 42.5%).

All physicians consider Hb as an important value in decision about PRBC transfusion.

In different medical scenarios physicians chose to give PRBC in different Hb (range 7 to 13 gr%).

Conclusions: Tachycardia and saturation were important factors in the decision of PRBC transfusions. The decision for PRBC transfusions was different in the intensive care physicians then the other groups.

0125 DIAGNOSTIC EVALUATION OF FOREIGN BODY ASPIRATION IN CHILDREN; A PROSPECTIVE STUDYZ Zonis¹, L Even¹, Y Talmon¹, E Samet¹, N Heno¹, A Kugelman²¹ Western Galilee Hospital, Nahariya, Israel; ² Bnai-Zion Medical Center, Haifa, Israel

Objective: To evaluate the yield of clinical symptoms, signs and radiological studies in the diagnosis of foreign body aspiration (FBA) in children.

Methods: During the two years study we performed on all children admitted to the pediatric department for suspected FBA a protocol that included: thorough medical history, physical examination, radiological studies (chest x-ray and fluoroscopy) and rigid bronchoscopy by a senior otolaryngologist. The yield of these measures for the diagnosis of FBA was evaluated.

Results: Foreign bodies (FB) were found in 56 out of the 98 children with suspected FBA (57%). Thirty-three children were males (59%) and 23 females (41%, p<0.05) with a mean age of 24 months (range, 8 to 84 months). Main symptoms in the children with FBA were: choking (76.8%), prolonged cough (14.3%), dyspnea (3.6%) and non-resolving pneumonia (1.8%).

Physical examination, chest x-ray, and fluoroscopy were abnormal in 80.4%, 67.9% and 46.9% of the children with FBA. The diagnostic yield of physical examination and radiological studies increased 24 hours after the event of FBA. In 45.2% of the children with positive history but with normal physical examination and radiological studies FBs were found. Out of the children with "doubtful" history, physical examination, chest x-ray, and fluoroscopy were abnormal in 58%, 38%, and 12.5%, respectively. FBs were found in 9.5% of these children.

Conclusion: Medical history is the key for the diagnosis of FBA. Choking followed by an acute episode of coughing is the most common presentation of FBA. The yield of physical examination and radiological studies in the diagnosis of FBA is relatively low but is increased when the presentation is delayed and when history is "doubtful". If FBA is suspected, bronchoscopy should be performed.

0126 CPR SURPRISE DRILLS: AN INSTRUMENT TO IMPROVE PERFORMANCE IN RESUSCITATION

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INTRODUCTION: Cardiopulmonary resuscitation (CPR) is a sudden, emergency procedure that requires rapid and efficient response, available equipment and personnel trained in lifesaving procedures. Since the time component is crucial for saving the patient's life we must master the skills of life-saving procedures.

The aim of the surprise drills is to improve the ability of personnel in the hospital's various departments and units to perform CPR

METHOD: A doctor and a nurse who are resuscitation instructors conduct the surprise drills.

They use a computerized simulation mannequin (SIM 4000).

Present a clinical scenario, observe, and document their findings.

- 81 CPR drills were conducted in 28 clinical departments during 2000-2003.

- At least 2 drills for each department (2-4)

- Parameters checked: response time, knowledge, skills, orientation with resuscitation trolley, leadership, teamwork, equipment and resuscitation chart.

- Discussion with staff concerning quality of resuscitation implementation, protocols for treatment of fatal arrhythmias, a written report with grading of the quality of the CPR exercise, and recommendations.

RESULTS: 75% of the departments showed a poor CPR performance at the first drill that decrease after a few drills to 36%.

4% of the departments showed good CPR performance at the first drill, which increased to 43% after a few drills.

SUMMARY AND DISCUSSION: Surprise drills supplements the CPR training through which the unified language has been introduced into the hospital.

More than 40% of department showed improvements of CPR performance in their last drills. Those that did not can be explained by the change in the team, meaning that there is no uniformity in the skills of the personnel. This problem can be overcome by repeating their training.

It is our belief that surprise resuscitation drills are the key to improve functioning during actual emergency resuscitation, both on a departmental and a general hospital level. The benefits of surprise CPR drills lie in examination of the knowledge level, skills, and the ability to implement them. The department's readiness with equipment and instruments is examined, together with their implementation of CPR protocol. It should be emphasized that this exercise is efficient only after personnel have undergone basic CPR training and the entire hospital has achieved a unified CPR language.

It is still too early to present statistical success concerning the contribution of surprise CPR drills. In order to reach conclusions, we need to expand the sampling and increase the frequency of drills.

0127

MASSIVE HOSPITAL ADMISSION OF A NIGHTCLUB FIRE DISASTER'S VICTIMS TO ARGERICH HOSPITAL IN BUENOS AIRES

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Background / Objectives:

A fire in a discotheque took place where more than 1800 assistants exceeded its capacity during an indoor concert. Seven hundred ten young people were injured and 192 died. In less than two hours some hospitals were overloaded with critical ill patients. In the present study we described the experience of a massive admission in a public hospital that uses to work at limit of its capacity every day.

Methods:

Descriptive study of fire disaster victims that arrived to a Acute General Hospital in Buenos Aires City on december 30, 2004. A 400 hundred hospital beds with 23 beds in Intensive Care Unit (ICU).

Results:

Seventy four fire disaster's victims arrived to our Hospital in less than two hours (between 0 to 2 AM). All patients suffered smoke inhalation and just one patient had a minor skin burn. The average age was of 20.9 years (± 4.3). Eighteen of 74 victims (24,3%) were dead at arrival. Twenty-five patients (33,7%) arrived with serious respiratory failure and neurologically obtunded, so they required immediate orotracheal intubación in the Emergency Room. Three of them (4%) died during the initial management. First redistribution of intubated patients according ventilators availability were: ICU 8 (32%), Operating Room 14 (56%), Coronary Unit 1 (4%) and Shock Room 2 (8%). All the patients received oxygen therapy (FiO₂ 100%). Eight of them (32%) had arterial hypotension, 3 (12%) cardiopulmonary resuscitation, and 1 (4%) vasopresor treatment. Thirty one (41%) of admitted patients had less severe illness and they were attended in Observation Units. Two of them (6%) were admitted in ICU 36 hs later because of respiratory failure. Fifteen critical patients were derived to others hospitals within 48 hs. We do not have news of 7 of them. One of them died 4 weeks later. None patients died in our hospital after initial resuscitation. Patients who required mechanical ventilation had an average of 6.5 days (± 1.0) of mechanical assistance, 9.3 days (± 1.5) of ICU stay, and 15 days (± 2.5) of hospital stay. One patients had mild neurologic damage with normal MRI, and total recovery by day 30.

Conclusion:

Massive admission to a plenty public hospital is a challenge. Health staff skills properly coordinated, and Operation Room fitted as a transitory Intensive Care Unit to increase mechanical ventilation capacity both yielded to a reasonable good outcome.

0128

PROCALCITONIN IN THE DIAGNOSIS OF INFECTION IN CRITICALLY ILL PATIENTS: A COST-EFFECTIVENESS ANALYSIS

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Background: Measurement of plasma procalcitonin levels is useful for the diagnosis of infection in the critically ill patient, and it helps to establish the diagnosis of sepsis and septic shock. Therefore, it is supposed to be a cost-effective strategy for the management of such patients.

Objectives: To assess the cost-effectiveness of the use of procalcitonin in the diagnosis of sepsis in patients in a critical care unit.

Methods: A cost-effectiveness analysis was performed using a decision tree comparing procalcitonin vs no procalcitonin strategies in the diagnosis of sepsis in intensive care patients. Data for cost and length of stay were extracted from a cohort of 179 patients admitted to a medical and surgical intensive care unit in Colombia. Probabilities and mortalities were extracted from a systematic review of medical literature. A base case analysis at 28 days was performed, estimating costs for every patient alive in each strategy, and a reference case analysis by means of Markov modeling, estimating costs for year of life in each strategy. Incremental cost-effectiveness was calculated in each case. One way and two way sensitivity analysis and probabilistic sensitivity analysis with the use of Montecarlo simulation were performed.

Results: In base case analysis, procalcitonin strategy was dominant over no procalcitonin strategy, it means, less costly and more effective. Cost-effectiveness relationship was \$13.018.764 Colombian pesos (about US\$ 4800) for procalcitonin, vs. \$14'618.071 Colombian pesos for no procalcitonin (about US\$ 5400). It is considered that using procalcitonin the cost for every alive patient is diminished in \$1'599.307 Colombian pesos (US\$ 592). In reference case analysis procalcitonin strategy is more effective and more costly. Cost-effectiveness relationship for procalcitonin strategy is \$1'995.228 Colombian pesos (US\$ 738) and for no procalcitonin strategy it is \$1'856.028 Colombian pesos, (US\$ 687) with an incremental cost-effectiveness ratio of \$698.314 Colombian pesos (US\$ 258) for year of life, which is under the willingness to pay threshold. These results don't change with sensitivity analysis, favoring no procalcitonin strategy only if clinical sensitivity is low or clinical specificity is high. Montecarlo simulation in base case analysis shows that procalcitonin is dominant with a probability of 72.2% and that incremental cost-effectiveness ratio is under the willingness to pay threshold with a probability if 93.2%. In reference case analysis there is an incremental cost-effectiveness ratio under the willingness to pay threshold with a probability of 91.5%.

Conclusions: Procalcitonin use for the diagnosis of sepsis in critically ill patients is a cost-effective strategy in the short and long term. Short term, it generates a significant decrease in hospital costs. Long term, it associates with an increment in life expectancy maintaining a cost-effective relationship.

0129

PROCEDURAL PAIN MANAGEMENT IN BURNED PATIENTS: EXPERIENCE WITH DEXMEDETOMIDINE

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Background/Objectives:

Burn patients must often endure intense pain during their regular dressing changes. The characteristics of dexmedetomidine (DEX) are remarkable for its production of a smooth sedated state with good analgesia and little decrease in respiratory drive. This drug is an $\alpha 2$ agonist with a short half life that is generally given in a bolus followed by constant infusion. While the total reports of the use of dexmedetomidine are still relatively few in number, there are not any report for its use to dressing changes in burn patients. Caution is warranted as there is a possibility of decreased blood pressure and bradycardia with this drug. Its effectiveness and safety in concious sedation for tap therapy and dressing changes in combination with some of the agents we already employ was study prospectively.

Methods:

Procedural pain management were studied prospectively during tap therapy and dressing changes in burn patients. Patients with extensive surgical procedures (wound excision or skin graft), sepsis, shock or respiratory failure were excluded. Procedures were made in Burn Unit. DEX load with 1.5 mcg/kg and maintenance dose was 0.5 mcg/kg/hra. Opiates and benzodiazepines were titrated in each patients according sedation scale (Ramsay <2) or visual analogue scale (VAS <3). Vital signs were registered before, during and at the end of the DEX load. After recovery patients were asked to recall pain during the dressing changes according to VAS (0-10).

Results:

Fifty procedural pain were study in fifteen burn patients. Average age was 38.7 y/o (± 16.4), TBSA 35.5% (± 22.3), current wound 13.0% (± 17.0), post burn days 31.3 (± 30.8). Average doses of midazolam 1.9 mg (± 1.7)[n:41], fentanyl 156.3 mcg (± 41.7)[n:8], morphine 9.7 mg (± 2.7)[n: 42]. Procedural length was 51.4 min (± 18.6). Average pain was of 1.2 ± 1.9 (r 0-7). Four patients (8%) referred pain >3 and one of these patients required addition of propofol. During DEX load cardiac rate decreased a 9.4% and mediam blood pressure 7.9% (p <.01). One of these patients presented arterial hypotension.

Conclusion:

DEX use for procedural pain in burn patient in combination with some of the agents we already employ was safe and effective.

0130 MORTALITY RATE IS THE SAME IN PATIENTS WITH ONE OR TWO VENTILATOR -ASSOCIATED PNEUMONIA EPISODES

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BACKGROUND: Ventilator-associated pneumonia (VAP) is associated with the greatest mortality among nosocomial infection. Death rates associated with *Pseudomonas* spp or with late-onset VAP seem higher. We looked for mortality and morbidity in patients with one or two consecutive VAP episodes.

METHODS: In a 12 bed surgical intensive care unit, at a 400 bed surgical complex of a district hospital, we prospectively studied all patients with VAP clinical and bacteriological (quantitative endotracheal aspirate culture, Protected Specimen Brush) diagnosed from January 2002 to January 2004. We looked for demography, APACHE – II score, mortality, attributable mortality for VAP, days on mechanical ventilation (MV), and ICU stay length. Population groups: A: (n=29) with two VAP episodes in the same admission period; B (n=32) single VAP episode for *Pseudomonas*; C (n=64) patients with single VAP episode without *Pseudomonas*.

RESULTS: Patients in group B had a great prevalence of COPD. Patients with two VAP episodes had the first one earlier (3,2 SD 1,65), the second one later (10,4 SD 5,2) and spent more days on MV (25,6 SD 14,7) than group B (6,7 SD 3,8 and 19,9 SD 7,8 respectively). There were no significant statistical differences between groups in mortality (A: 41,6%; B: 37,8%; C:34,5%) or VAP attributable mortality (A: 35%; B: 21,6%; C: 44%). Overall ICU mortality during the studied period was 15%. The ICU stay length was different between and within groups: A: 60,2 days (SD 24,1); B: 22,1 (SD 11,5); C: 13,4 (SD 6,1) (ANOVA-test p=0,001). Gram-positive flora predominated in the first VAP episode vs. the second one. Polymicrobial cultures were near 50% in groups B and C and in the second VAP episode, with 28% in the first VAP episode (p<0,05).

CONCLUSIONS: We found no differences in mortality between patients who developed two VAP episodes compared to patients with single VAP due to *Pseudomonas* or single VAP without *Pseudomonas*. The days under mechanical ventilations and ICU stay length were longer (with significant statistical differences), in patients with two VAP episodes compared to patients with VAP for *Pseudomonas*, and from the latter to patients with VAP without *Pseudomonas*. Gram-positive flora was predominant in first VAP episode, and Gram-negative in second one.

0132 EARLY INDICATORS OF STRESS OXIDATIVE IN PATIENTS WHO UNDERWENT GYNECOLOGICAL SURGERY

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Objectives: To investigate the indicator of stress oxidative that happened in patients who underwent gynecological surgery.

Methods: Cohort Study that evaluate intermittently the concentration of Isoprostane, TNF alpha and Oxygen extraction ratio in patients who underwent gynecological surgery.

Interventions: The research was done in 10 patients who were planned for gynecological surgery. Premedication drugs, midazolam and pethidine were given to the patients in induction room. As soon as the patients admitted to the operating theatre, we inserted the intra arterial and intra venous catheters. Immediately before induction anesthesia, blood samples were taken for laboratory measurements, and the next samples were taken every 1 hour during the operation and immediately after endotracheal tube extubation.

Results: We divided the results data into 5 groups. 1st group consist of the data that were taken before induction, the 2nd, 3rd, 4th groups were taken 1 hourly during the operation and the 5th group were taken after endotracheal tube extubation. The collected data were statistically analyzed by t-test. It were found that the increased of Isoprostane happened in 5th group compared with the 1st group (p<0.005) and the increased of TNF alpha concentration happened in the 3rd and the 5th groups compared with 1st group (p<0,005). There were not statistically significant differences between all groups compared with the 1st group.

Conclusion: From the result data, its can be made the conclusion, that the increases of Isoprostane and TNF alpha could be used as an early indicators of stress oxidative happened in the patients underwent gynecological surgery.

0134 POPULATION OF OBSTETRICS PATIENTS ADMITTED IN ICU

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Objectives: To describe the obstetrics population in the ICU of a general hospital with a large maternity, taking into account that critical pathologies during pregnancy are relatively infrequent.

Materials and methods: A descriptive study was conducted of the obstetrics population admitted in an ICU from April 1999 to June 2004. Clinical histories were reviewed, checking age, ICU length of stay, diagnosis upon admission, n° of former pregnancies, deliveries and abortions, procedure performed in case of surgical diagnosis, APACHE II and calculated death probability, presence of organic dysfunction, ARM and evolution (survivor or dead). Statistical significance was considered to be p < 0,05.

Results: 57,452 patients were admitted to the hospital maternity, of which 242 (0,42%) required ICU admission. This represented 11,60% of total ICU admissions. Patients were aged 26 ± 7,65 years (14 - 44). Average ICU length of stay was 3,15 ± 3,1 days. According to diagnostic category, 193 patients were clinical (79,8%), 43 surgical, (17,8%) and 6 with multiple trauma (2,5%). The most frequent admission diagnoses were: Severe sepsis / Septic shock in 74 patients (30,5% of cases); of these, septic abortion constituted 58,1% and puerperal sepsis 20,7% of cases; Severe preeclampsia / eclampsia in 72 patients (29,8%), of which 6,2% presented associated HELLP. Haemorrhage / Hypovolemic shock in 27 patients (11,2%). The average APACHE II was 9,84 ± 6,5 points and a calculated death probability of 17,38 ± 18,65 %. 45,45% of patients (110) presented at least one organic dysfunction, and of these, 70% suffered from MODS. The most frequent organic dysfunction was hemodynamic in 70 patients (28,9%). Mortality was 9,9% (24 patients). The n° of organic dysfunctions proved to be a good indicator of mortality: area below the ROC curve: 0,905. On comparing patients admitted in ICU with severe preeclampsia / eclampsia, significant differences arose from the rest of the population regarding age, number of former pregnancies and ICU length of stay. Distribution by age of patients with or without eclampsia shows that the first group features a bimodal distribution around the extreme ages of patient fertile life.

Conclusions: Obstetrics patients constitute a special group within the IC population, with differences in age, degree of seriousness and survival rate, and with their own pathologies motivating their admission. The percentage of obstetrics patients admitted in ICU in comparison with the total number of hospital obstetrics admissions is slightly higher than that of developed countries. The APACHE II of our population was 9,73. The comparison of the APACHE II of survivors vs. dead shows statistical significance. The patients admitted in ICU with sepsis / septic shock caused by a septic abortion showed clear differences from the rest of the population regarding the n° of organic dysfunctions, ICU length of stay, APACHE II, calculated death probability and observed mortality.

0135 EVALUATION OF THE IMPACT OF EXTUBATION FAILURE AND REINTUBATION ON THE OUTCOME OF MECHANICALLY VENTILATED PATIENTS. A CASE-CONTROL STUDY

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OBJECTIVE: To evaluate the impact of extubation failure and reintubation among other prognostic variables in patients connected to mechanical ventilation.
METHODS: A case - control study of patients who were consecutively intubated and connected to mechanical ventilation for more than 48 hours and were extubated between October 2003 - December 2004 in a 20-bed ICU was designed. Extubation failure was defined as patients who required reintubation and reconnection to mechanical ventilation within 72 hours or seven days if they were still in the ICU and successfully extubated if they didn't require it. The decision to extubate was made if the patients complete a successful SBT and previous evaluation of patient's consciousness level, capability of protecting the airway and coughing. Gender, age, SAPS II, respiratory failure cause, days on mechanical ventilation, development of ventilator-associated pneumonia (VAP), days to screening for SBT, and specific data of the trial were recorded. The main exposure factor was a new intubation event. The outcome variables analysed were: hospital mortality, mechanical ventilation required for more than 14 days, ICU length of stay (LOS) and hospital length of stay (LOS). The continuous variables were analysed with Student's t-test for independent samples, and U-Mann Whitney test if normal distribution presumption was not achieved, Chi square or Fisher's exact test was used for categorical variables. To determine the independent effect of extubation failure on mortality and mechanical ventilation for more than 14 days, a multiple logistic regression analysis was performed adjusting for the effect of significative variables in the univariate analysis. The significance level was set at 0.05 (two tails).

RESULTS: 65 patients who were extubated successfully and 29 patients with extubation failure were included. There were significative differences at the onset of mechanical ventilation in age: 59.6 ± 18.1 vs 71.7 ± 15.6 years p < 0.002, SAPS II: 41.1 ± 13.5 vs 49.6 ± 15.7 p < 0.015 and cause of respiratory failure (sepsis): 21.5% vs 56% p < 0.002). Extubation failure was associated with an increase in ICU LOS (24.5 ± 13.8 vs 9.0 ± 6.4 days p < 0.001) and hospital LOS (31.2 ± 15.4 vs 16.7 ± 12.2 days p < 0.001) and also with an increase in the risk of in hospital mortality: OR: 11.2 (95% IC 3.5 – 36.0) and need of prolonged mechanical ventilation: OR: 12.4 (95% IC: 3.6 – 43.2). In the multivariate analysis adjusted to age, SAPS II (converted to binary variable >46), presence of sepsis and development of VAP, an independent effect of extubation failure was still found among the other mentioned variables (Table 1).

CONCLUSIONS: The outcome of patients with extubation failure and subsequent reintubation was poor and associated with an increased risk of mechanical ventilation dependence and mortality.

Outcome	B	P	AOR (95% IC)
MV >14/<14 days			
SAPS II	1.2	0.07	3. (0.9 - 12.3)
VAP	2.0	0.03	9.2 (1.2 - 71.6)
New event	2.3	0.001	10.3 (2.7 - 38.7)
Death/Survival			
SAPS II	1.3	0.03	3.8 (1.2 - 12.4)
New event	2.3	0.000	9.3 (2.8 - 31.9)

0137 CORRELATION BETWEEN ARTERIAL LACTATE (LAC+) AND VENOARTERIAL PCO₂ DIFFERENCE (ΔPCO₂) / ARTERIOVENOUS O₂ CONTENT (CA-VO₂) RATIO OBTAINED USING CENTRAL VENOUS CATHETERS (CVC)

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Background: Tissue hypoxia decrease global O₂ consumption (VO₂) and is associated with a decrease in aerobic CO₂ production (VCO₂) while an anaerobic VCO₂ should occur, thus the total VCO₂ should be less reduced than VO₂. Therefore the VCO₂ / VO₂ ratio and respiratory quotient should increase. Assuming that CO₂ tension (PCO₂) is linearly related to CO₂ content over a physiological range then, ΔPCO₂ could be used as a surrogate for the difference between mixed venous and arterial CO₂ content to calculate respiratory quotient⁽¹⁾. Hyperlactatemia is used as a marker of hypoperfusion and anaerobic metabolism.

Because of high costs and risk that imply to place pulmonary artery catheters in all patients we hypothesize that blood gases obtained from central venous catheter could be used to calculate ΔPCO₂ / C_(a-v)O₂ ratio.

Objective:

To test the value of ΔPCO₂ / C_(a-v)O₂ obtained using CVC, to detect global anaerobic metabolism as defined by an increase in Lac+ level above 2 mMol/L.

Materials and methods:

Prospective observational study over a 6-months period in a mixed intensive care unit.

We obtained 188 sets of measurements in 84 critically ill patients. We recorded demographic characteristics, diagnosis, APACHE II and outcomes. Samples included arterial and central venous blood gases, and Lac+.

It was defined hyperlactatemia as a value above 2 mMol /L.

Results:

The ΔPCO₂ / C_(a-v)O₂ ratio did not showed statistical differences in both groups, those with increased (n = 68) or normal levels of Lac+, (n = 120), 1.2 ± 1.4 vs. 1.2 ± 1.7. This parameter did not have a good correlation with levels of Lac+, Spearman's rho = -0.033.

However, when we considered only the patients that had have a CVC at admission (n = 47) we were able to establish a threshold value of 1.4 for the ΔPCO₂ / C_(a-v)O₂ ratio in the receiver operating curve. This threshold value predicted mortality with sensibility of 69.7% and specificity of 71%. The overall survival estimate at 1 month was significantly greater when the ratio was less than 1.4 at admission, 84.7% vs. 52.4 %, p < 0.05.

Conclusion:

The ΔPCO₂ / C_(a-v)O₂ ratio obtained from CVC showed no correlation with levels of Lac+, however it could be used in association with other parameters as early predictor of mortality.

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0139 MANAGEMENT OF SEPTIC SHOCK IN A HEART-TRANSPLANT PATIENT. WHAT DO WE MEAN BY "STANDARD OF CARE"?

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Background: Septic Shock (SS) is not rare in transplanted patients (TrP) due to their immune state. Although TrP have been excluded from the Drotrecogin alfa (activated) [DAA] PROWESS¹ and ENHANCE² trials, some reports suggest that TrP could benefit from these treatment protocols³. We present a case of a post cardiac TrP with SS successfully treated with DAA together with the best standards of care⁴.

Case report: A 61 yo male presented at ER with fever, tachycardia and dyspnea. He had undergone heart transplant six month before. Treatment: cyclosporine/micophenolate/metilprednisolone. He complained of diffuse malaise and persistent cough. Physical exams: tachypnea, diffuse livedo, T 39°, SpO2 80% (FiO2 21%), HR 135, PAM 50mmHg and oliguria. Chest exam: reduction of the VM in medium and lower right lung fields with crackles. Volemic expansion was immediately started; chest X-ray showed a right lung consolidation. Despite the volemic expansion, hypotension persisted. He was transferred to Intensive Care Unit (ICU) with a diagnosis of SS from severe Community Acquired Pneumonia (CAP). Once in ICU, the patient underwent mechanical ventilation. Simultaneously, cultures and blood tests were carried out, showing: leukocytosis, low platelet count, abnormal renal values, metabolic acidosis and hyperlactacidemia. Haemodynamic instability persisted despite the volemic expansion, infusion of noradrenaline + dobutamine was initiated and a pulmonary catheter was positioned. Bronchoalveolar lavage (BAL) was performed and cefotaxime/levofloxacin scheme initiated immediately after; cyclosporine and micophenolate were suspended. Direct examination of BAL showed gram+ and then Pneumococci 10⁸ CFU, growth in culture. Fourteen hr after ICU admission, DAA infusion was started. Within the 1st day of infusion, the patient was weaned from vasoactive drugs. His condition continued to improve over subsequent days with complete normalization of cardiorespiratory parameters and organ function indexes. 7 days after ICU admission, he was extubated. On day 10 he was transferred to cardiology. Eight days later, the patient was discharged and sent home in excellent clinical conditions.

Conclusions: While it is impossible to affirm that DAA changed the course of this patient, his evolution suggests that it played an important role in the final outcome. This patient was diagnosed of severe CAP, where DAA has proven especially efficacious⁵. Since TrP with SS are at high risk of death and DAA treatment is not contraindicated; it should be considered for SS management in these patients.

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0140 COMPARISON OF TWO APPROACHES TO METABOLIC ACID-BASE DISTURBANCES

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Objectives: Stewart's approach states that pH is primarily determined by three independent variables: PCO₂, strong ion difference (SID) and non-volatile weak acids. Using this approach, Fencel et al (AJRCCM 2000) have shown that the traditional analysis, based on bicarbonate, base excess (BE) and anion gap (AG), frequently failed to identify severe metabolic disturbances, such as metabolic acidosis. Hypoalbuminemia, a common finding in critically ill patients, might confound the interpretation of acid-base data due to its alkalinizing effect, since albumin (alb) acts as a weak, non-volatile acid. Our hypothesis was that the Stewart approach would show a better diagnostic and prognostic performance than the traditional analysis, in a large cohort of critically ill patients.

Methods: We prospectively studied all patients admitted to our ICU from 1/3/04 to 30/11/04. On admission, APACHE II and predicted risk of mortality were calculated; arterial blood samples were analyzed for gases, Na⁺, K⁺, Ca⁺⁺, Mg⁺⁺, Cl⁻, alb, Pi and lactate. We also estimated bicarbonate, BE, AG adjusted to alb, SID (SID = bicarbonate + alb + Pi), strong ion gap (SIG = Na⁺ + K⁺ + Ca⁺⁺ + Mg⁺⁺ - Cl⁻ - SID). Diagnostic categories defined by Fencel et al were used. Normal ranges were established as mean ± 3 SD of 7 normal volunteers. Linear regression and Bland & Altman analysis was performed between SID and BE, and SIG and AG. ROC curves were built to analyze the ability of APACHE II and metabolic acid-base parameters to predict 30-day mortality.

Results: 543 patients were included (APACHE II 13 ± 8, predicted and actual mortality 20% and 11%). Hypoalbuminemia was present in 81% of the patients. In 43 patients (8%), Stewart's approach allowed the detection of a metabolic acid-base alteration undetected by conventional approach. Of these, 40 (93%) were metabolic acidosis with normal bicarbonate and BE. However, 30 (75%) of these patients had increased AG. Consequently, the use of Stewart's approach permitted the diagnosis of metabolic acidosis in only 10 patients (2%) with normal bicarbonate, BE and AG. On the other hand, Stewart's approach failed to identify 18 patients (3%) with metabolic alterations in traditional approach (11 acidosis and 6 alkalosis). In addition, the metabolic response to a respiratory disturbance was misinterpreted as a primary metabolic process in 81 patients (15%; 78 alkalosis and 3 acidosis). SID and BE, and SIG and AG were strongly correlated (R² = 0.85 and 0.97, p < 0.0001 for both) and showed narrow 95% limits of agreement (7.9 and 3.3 mmol/l, respectively). Areas under ROC curves were 0.89, 0.64, 0.63, 0.62, 0.60, and 0.57, for APACHE II, SIG, lactate, AG, SID and BE (APACHE II vs. the rest, p < 0.00001).

Conclusions: In this large group of critically ill patients, Stewart's approach does not offer any diagnostic or prognostic advantage over conventional approach.

0143 PATIENTS' DREAMS AND UNREAL EXPERIENCES IN ICU AS RECALLED TWO YEARS AFTER DISCHARGE: COMPARISON WITH DELIRIUM STATUS DURING ADMISSION

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Background. Intensive Care Unit (ICU) patients, whether agitated or lethargic, may experience vivid dreams. These may be persecutory in nature and frightening for the patients. Routine screening for delirium in ICU is becoming more prevalent, however, there has been little research comparing the objective development of delirium using screening tools and the patients' subjective recollection of dreams in the ICU.

Objectives. To describe

(1) the patients' subjective experiences of dreaming during ICU admission

(2) any relationship between these dreams and the objective presence of delirium during that admission.

Method. Following institutional ethics approval we conducted a prospective cohort study using the interview technique. The cohort was assembled from 152 patients who participated in a previously conducted multi-centre study of delirium incidence in Australian ICUs.

The interviews involved a mixture of closed- and open-ended questions. The open-ended questions were a combination of descriptions and the use of semantic differential techniques relating to the ICU admission and dreams. To standardize the technique the same researcher at each site undertook the interview after joint training.

Qualitative responses regarding recalled dreams and memories were analyzed using a thematic method.

Demographic data was aggregated to allow description of the sample. Categorical data was compared using chi-square or Fisher's exact test, and continuous data was assessed for normality of distribution then compared using the t-test or Mann-Whitney U. Multivariate analysis was undertaken using logistic regression. A p-value of <0.05 was considered significant for all analyses.

Result. Review of hospital databases identified 103 patients potentially contactable 18 to 24 months after ICU discharge. 41 of these patients consented to participate and of these 18 patients (44%) had been delirious and 23 patients (56%) non-delirious during the ICU admission.

Overall 44% of patients (n=18) recalled dreams from their ICU admission. There was a trend to increased prevalence of dreaming (50%) amongst the 18 delirious patients than for the 23 non-delirious patients (39%), although this did not reach statistical significance (OR 1.56, 95%CI 0.45-5.41, p=0.49). Dreaming was significantly associated on multivariate modelling with increased length of stay (OR 1.39, 95%CI 1.08-1.79, p=0.01).

11 patients reported their dreams as scary and 10 patients describing good or indifferent dreams allowing for an overlap of 3 patients who experienced both.

Conclusion. It is important to provide optimal holistic care for ICU patients to restore both physical and psychological health and well being. The prevalence of 44% of ICU patients reporting dreams from their ICU admission was significant. Targeting long-term ICU patients with information and comprehensive discussion about different scenarios of ICU experiences may assist them in regaining a fulfilling life after discharge from ICU.

0144 COMPARISON OF FACTUAL MEMORIES OF ICU EXPERIENCES AND DELIRIUM STATUS TWO YEARS AFTER DISCHARGE

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Background. Patients who require Intensive Care Unit (ICU) treatment may encounter several untoward experiences lasting well beyond the physical recovery of their illness. These can include factual memories of ICU and may be perceived as stressors by the patient. The presence of several such stressors can lead to the development of reduced quality of life and/or post-traumatic-stress-disorder (PTSD).

Objectives. To describe the relationship between patients' observed behavior using a validated screening tool during their ICU admission, their recall of factual memories from ICU and subsequent psychological outcome.

Method. Following institutional ethics approval we conducted a prospective cohort study using the interview technique. The cohort was assembled from 152 patients who participated in a previously conducted multi-centre study of delirium incidence in Australian ICUs.

The interviews involved a mixture of closed- and open-ended questions.

Qualitative responses regarding factual memories were analyzed using thematic analysis.

A 5-point Likert scale with answers from "always" to "never" was used to ask about current experiences of dream, anxiety, sleep problems, fears, irritability and / or mood swings. Scoring ranged from 5 to 30 with a midpoint value of 18 indicating a threshold value for diagnosis of PTSD.

A p-value of <0.05 was considered significant for all analyses.

Result. Forty-one patients (40%) consented to take part in the follow-up interview out of 103 potential participants. 18 patients (44%) had been delirious and 23 patients (56%) non-delirious during the ICU admission. The non-participants (n=62) formed a control group to ensure a representative sample.

83% (n=34) reported factual memories either with or without recall of dreaming. Factual memories were significantly less common (66% c.f. 96%) in delirious patients (OR 0.09, 95%CI 0.01-0.85, p=0.035).

Five topics emerged from the thematic analysis: "procedures" ie. endo-tracheal tube, "staff" ie. nursing and medical staff, "comfort" (thirst or feeling secure), "visitors", and "events" ie. waking up.

On current experiences five patients (12%) (four non-delirious and one delirious) scored >18 indicative of symptoms of PTSD. This did not reach a statistically significant difference.

Memory of transfer out of ICU was less frequent amongst delirious patients 56% (n=10) than non-delirious 87% (n=20) (p=0.036).

Conclusion. Most patients had factual memories of their ICU stay. However, delirious patients had significantly less factual recall than non-delirious. Adverse psychological sequelae expressed as PTSD was uncommon in our study.

Every attempt must be made to ensure the ICU environment is as hospitable as possible to decrease the stress of critical illness. Post-ICU follow-up should include filling in the "missing gaps" and ongoing explanations in a caring environment may assist the patient in making a complete recovery both physically and mentally.

0145 VISCERAL COMPLICATIONS FOLLOWING CARDIOPULMONARY RESUSCITATION

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BACKGROUND

Since the development of modern day cardiopulmonary resuscitation unintended or unanticipated consequences or complications have been observed and described in the medical literature.

The most frequently reported complication of CPR has been skeletal injuries, specifically fractures of the ribs and sternum. Damage to visceral structures is a rare but documented complication of CPR, usually with devastating consequences.

Retrospective series report a highly variable complication rate, depending on whether the autopsy was performed and whether the abdomen was opened after CPR. Thus the diagnosis of visceral complications after CPR is difficult, and is probably underreported.

METHODS

A 60 yo female was admitted to the ICU because of inferior AMI. On day 2 she suffered a cardiac arrest, requiring CPR during 20 minutes, and recovered effective cardiac rhythm and a normal level of consciousness. Immediately after CPR, the patient complained of abdominal pain and presented hypotension. An abdominal USG revealed free intraabdominal fluid, and an abdominal CT showed liver laceration and a splenic hematoma. The patient was taken to the OR and died of hypotension during the laparotomy.

RESULTS.

In a Medline search, autopsy series report that approximately 50% of cases dying after CPR showed injuries attributable to CPR. Abdominal complications are less common. The incidence of liver trauma ranged from 0% to 11%, with a mean of 2.9%. Children seem to be especially susceptible to liver injury. Liver trauma may be an incidental autopsy finding or may result in massive bleeding. Splenic injury is described in less than 1% after CPR. Gastro-oesophageal tears and haemorrhage, gastric rupture, and damage to the aorta or the inferior vena cava are rare but severe complications.

Our patient is unusual because antemortem diagnosis of CPR-induced liver trauma has been reported in only four cases in the literature: two of them in patients receiving thrombolytic therapy and one in a pregnant woman.

CONCLUSIONS

Liver trauma is the most serious complication of CPR.

When severe abdominal pain associated with hypovolemic shock occurs following CPR, liver or splenic trauma should be considered.

Abdominal bleeding after CPR is a difficult diagnosis. If resuscitation is initially successful, subsequent cardiovascular instability is more likely to be ascribed to a cardiac problem rather than to haemorrhage and hypovolemia.

Ultrasonography is probably the investigation of choice and may facilitate early and appropriate surgical exploration.

The professional training and recycling in CPR techniques are very important to prevent and minimize the complications following this treatment.

0146 RECORDS IN-HOSPITAL CARDIOPULMONARY RESUSCITATION: VALIDATE AND APPLICABILITY OF AN INSTRUMENT

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BACKGROUND: Usually, during in-hospital cardiopulmonary resuscitation (CPR), there is lack of comprehensive records about the whole procedure, or, more often, they are incomplete, reporting only the times of cardiac arrest (CA) and death. **OBJECTIVES:** The objectives of the present study were to validate and to apply an instrument elaborated to record in-hospital CPR maneuvers in a teaching institution. Validation is fundamental before using an instrument, it verifies the quality of the application of an instrument in a determined population, it is also going to perceive how the instrument behaves in the environment in which is implemented, to do that, the instrument was submitted to the validation of content and its applicability was also verified. **METHODS:** The instrument was previously validated by experts judges, and then it was applied by registered nurses at the emergency room, adult intensive care unit, clinical and surgical emergency wards, during cardiac arrest events in order to evaluate its practical applicability. **RESULTS:** Data analysis showed that there was no disagreement among judges regarding the instrument's intelligibility (p=0,353), objectivity (p=0,333) and organization (p=0,107). (Cochran's test). Fifty- four records of in-hospital CPR have been done, and the nurses were trained to evaluate the instrument's utility, practicability and objectivity, with more than 90% of positive answers. Information concerning patient's identification (92,7%), cardiac arrest characterization (72,2%), CPR maneuvers (81,8%), post-CPR procedures (89,6%), team of attendance (27,4%) and general annotations (7,4%), were possible to be retrieved from the applied instrument. **CONCLUSIONS:** It was concluded that an adapted instrument for recording in-hospital CPR procedures could be validated and easily applied by nurses in a teaching hospital. The utilization of this instrument would enable to stimulate to practical of records, news training, direct investments and adequate in-hospital CPR maneuvers in the units for critical ill patients and contribute to the improvement during in-hospital cardiopulmonary resuscitation.

Key-words: Cardiac arrest – Nursing - cardiopulmonary resuscitation

0147 RED BLOOD CELL DISTRIBUTION WIDTH CHANGES IN SEPTIC PATIENTS

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BACKGROUND. The role of leucocytes in the inflammatory response is well known; nevertheless, the rheologic changes of red blood cells (RBC) and their physiopathological role during inflammation are not completely understood. Previous studies have found important alterations in RBC shape and functional disturbances during sepsis and inflammation. This has led to discussion the hypothesis that RBC alterations during shock and sepsis may contribute to multiple organ dysfunction syndrome. The red blood cell distribution width (RBC-DW) is an indirect measurement of the variation of RBC size.

OBJECTIVE. Study the variation of the RBC-DW in patients with sepsis admitted to a medical/surgical Intensive Care Unit (MS-ICU).

METHODS. Two groups of patients admitted to the MS-ICU were included: one group of patients with sepsis, severe sepsis and septic shock, the second group of patients admitted without sepsis. There was also a group of healthy blood donors as control group. The variables studied included RBC-DW, APACHE II and SOFA scores. The RBC-DW was measured with a computerized system (Sysmex xt-2000i) in a sample of whole blood (7.5 ml) anticoagulated with ethylenediaminetetraacetic acid (EDTA) during the first 24 hr. of admission. The inclusion criteria were patients between 18 and 60 years old and patients with sepsis criteria defined as the Conferess Consensus.

RESULTS. There were 184 patients included with the following distribution: septic group, 58; without sepsis group, 63; and control group, 63 patients. The mean age in the septic group was 48 ± 11 years, in the group without sepsis 46 ± 8 years, and control group 43 ± 6 years. The mean RBC-DW in the sepsis group was 18.23 ± 2.01 vs. 14.03 ± 1.36 (p >0.05; t 1.47, CI 95%) in the group without sepsis and 12.72 ± 0.27 (p <0.05; t 3.580, CI 95%) in the control group. The mean severity scores in the sepsis group were APACHE II 17.52 ± 8.51 and SOFA 9.47 ± 5.43; in the group without sepsis APACHE II 6.10 ± 7.01 and SOFA 2.44 ± 3.76.

CONCLUSIONS. The RBC-DW is higher in septic patients compared with patients without sepsis and healthy subjects. A relation between RBC-DW and higher morphologic alterations in red blood cells in patients with sepsis is probable. This measure is also statistically higher in patients with the highest SOFA values but not APACHE II. We need to study a larger population to acutely describe an association between these variables and RBC-DW. The relationship between RBC-DW and severity assessment scores has to be defined with future studies.

0148 EVALUATION OF THE OUTCOME OF ELDERLY CRITICALLY ILL PATIENTS WITH CANCERM Soares¹, JIF Salluh¹, CG Ferreira¹, RR Luiz², JR Rocco², N Spector²

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Background / Objectives: Information about outcome predictors for older patients requiring critical care is limited. Our objective was to identify characteristics associated with increased six-month mortality for elderly critically ill cancer patients.

Methods: From May 2000 and May 2004, every cancer patient aged ≥ 70 years admitted to our medical-surgical intensive care unit (ICU) because of a severe illness was prospectively evaluated. Patients with acute coronary syndromes and those who had been considered cured from their cancer for >5 years were excluded. Data were collected at admission and during ICU stay. Patients were categorized according to their age in three groups: 70-74 (n=114), 75-79 (n=60) and ≥ 80 (n=46) years old. Variables selected in the univariate analysis ($p < 0.25$) were entered into a multivariable Cox proportional hazards regression model having as the dependent variable the six-month mortality.

Results: A total of 220 patients were included and the mean age was 76 ± 5 (range: 70-98) years. There were 185 (84%) patients with solid tumors and 35 (14%) patients had hematologic malignancies. The main reasons for ICU admission were sepsis (46%) and acute respiratory failure (11%). During ICU stay, 155 (70%) patients received mechanical ventilation and 26 (12%), hemodialysis. The hospital and six-month mortality rates were respectively, 59% and 64%. End-of-life decisions were taken in 37 (17%) patients. Baseline characteristics were similar for the three groups. The following variables were selected in the Cox model: performance status (PS) 3-4 [hazard ratio (HR)=1.67(95% confidence interval (CI)=1.1-2.54)]; uncontrolled newly-diagnosed cancer [HR=1.92(95% CI=1.22-3.02)]; cancer recurrence/progression [HR=1.90(95% CI=1.24-2.90)]; number of organ failures (OF) [HR=2.78(95% CI=1.60-4.82)], for patients with 1-2 OF and HR=7.19(4.05-12.78), for patients with >2 OF; and age ≥ 80 years [HR=1.91(1.25-1.93)]. **Conclusions:** Age should not be used alone as a determining factor in the allocation of ICU beds, since selected older patients with cancer can benefit from intensive care. When considering ICU admission for these patients, the severity of acute organ failures, functional status and cancer status are potential characteristics to be taken into account.

0149 MICROALBUMINURIA AS A PREDICTOR OF SEVERITY IN THE CRITICALLY ILL PATIENTR Carrillo-Esper, V Contreras-Domínguez, C Hernández-Aguilar
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BACKGROUND. The endothelial lesion during inflammation progresses to a multiple organ dysfunction as the disease worsens. The glomeruli, as an extension of the vascular endothelium, is also injured with the systemic inflammatory response. The microalbuminuria is a consequence of endothelial widespread damage. Microalbuminuria is defined as an increment in the urinary excretion of albumin from 20 to 300 mg/L. In the critically ill patient different scores are used to evaluate the severity of the illness and to establish prognosis, the most used include Acute Physiologic and Chronic Health Evaluation II (APACHE II) and (Systemic Organic Failure Assessment) SOFA.

OBJECTIVE. The objective of this study is to evaluate microalbuminuria as a predictor of severity in critically ill patients.

PATIENTS AND METHODS. This study included patients with diagnosis of sepsis admitted to the medical-surgical intensive care unit (MS-ICU). The exclusion criteria were: urologic trauma, urinary infection, use of nephrotoxic drugs and previous history of renal disease with serum creatinine (Cr) > 2 mg.

Urine samples were obtained for semi-quantitative microalbuminuria determination with a fast strip kit (CLINITEK Microalbumin \otimes) at the 8, 24, 48, 72, 96 and 120 hr. after admission. APACHE II and SOFA scores were calculated and correlated with microalbuminuria. The statistical analysis was made with univariate variance analysis for repeated variables. The difference among groups was analyzed by T-student test.

RESULTS. There were included 12 patients with sepsis (9 men and 3 women) with a range of age from 32 to 75 years (mean 53.5 years) admitted to a MS-ICU during March 2003 to September 2003. The diagnoses included pancreatitis (3 patients), abdominal sepsis (5 patients), pneumonia (3 patients) and one patient with burns (47% of body surface area). High levels of microalbuminuria were observed in the first determination in all the patients with a mean of 106.66 ± 22.53 mg/L; the maximum values were at 48 hrs 138.33 ± 16.47 . Microalbuminuria decreased to 79.16 ± 6.34 mg/L at 120 hr. The mean APACHE II and SOFA scores at admission were 23.66 ± 3.34 and 10.08 ± 0.92 respectively. APACHE score diminished 4.16 ± 0.23 ($p < 0.05$) points at 48 hr. and 10.91 ± 0.46 ($p < 0.003$) points at 120 hrs. SOFA score diminished 3.33 ± 0.26 ($p < 0.05$) points in the first 48 hrs. and 2.75 ± 0.0027 ($p < 0.004$) points at 120 hrs.

CONCLUSION. Association was observed among the microalbuminuria determination and the values obtained in the scales of severity in patients with high scores of SOFA and APACHE II. The semi-quantitative measurement of microalbuminuria with a fast strip kit technique is useful in the critically ill patients and correlates with the severity of the disease.

0150 EVALUATION OF THE OUTCOME OF SEVERELY ILL PATIENTS WITH HEAD AND NECK CANCERM Soares, L Toscano, FL Dias
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Background and Objectives: Patients with head and neck cancer requiring admission to the intensive care unit (ICU) are considered to have a poor prognosis. However, information about outcome predictors for these patients is limited. The objective of the present study was to identify characteristics associated with increased hospital mortality.

Methods: From May 2000 and May 2004, every patient with head and neck cancer admitted to an exclusively oncologic ten-bed medical-surgical intensive care unit (ICU) because of a severe illness was prospectively evaluated. Patients admitted for uncomplicated routine postoperative care, with acute coronary syndromes, ICU stay < 24 h and those who had been considered cured from their cancer for > 5 years were excluded. Demographic, clinical and cancer-related data were collected at the first day of ICU stay. Variables selected in the univariable analysis ($p < 0.25$) were entered in a multivariable logistic regression analysis having as the dependent variable the hospital mortality. Results were expressed as odds-ratio (OR) and respective 95% confidence interval (CI).

Results: During the study period 239 patients with head and neck cancer were admitted to the ICU and 110 have met the eligibility criteria. The mean age was 57 ± 15 years and there were 72 (65%) males. The main sites of primary tumor were oral cavity (35%), larynx (22%), pharynx (12%) and thyroid (7%). The main reasons for ICU admission were sepsis (31%), postoperative complications (23%), neurological complications (14%) and acute respiratory failure (excluding sepsis) (12%). During ICU stay, 79 (72%) patients received mechanical ventilation (MV) for > 24 h. The ICU, hospital and six-month mortality rates were respectively, 31%, 45% and 57%. End-of-life decisions were taken in 23 (21%) patients. Age, performance status (PS) before hospital admission (ECOG scale), cancer stage, cancer extent, surgical status, number of organ failures (OF), need of MV, malnourishment and the presence of comorbidities were entered in the multivariable analysis. The final model for the independent predictors of increased hospital mortality was: PS ≥ 2 [OR=6.7(95% CI=2.1-21.4), $p=0.001$]; advanced cancer (T4 or metastatic disease) [OR=4.9(95% CI=1.4-17.3), $p=0.014$]; number of OF ≥ 2 [OR=18.2(95% CI=4.3-77.3), $p < 0.001$] and need of MV [OR=3.2(95% CI=0.9-11.2), $p=0.066$].

Conclusions: The severity of acute organ failures, poor PS and the presence of an advanced cancer were the main determinants of increased hospital mortality. The knowledge of these characteristics may help health professionals to identify those patients who might potentially benefit from the intensive care.

0151 EXPERIENCE WITH DROTRECUGIN ALFA (ACTIVATED) IN A POLYVALENT INTENSIVE CARE UNIT BY USING A CLINICAL PRACTICE PROTOCOL

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Background and Objectives- Drotrecogin alfa (activated) [DAA] has shown to significantly reduce 28-day mortality and to have a favorable risk-benefit profile compared to placebo in PROWESS study. We report mortality and safety data in adult patients treated in our intensive care unit (ICU) by using a clinical practice protocol (CPP).
Methods- A CPP for identifying patients suitable for DAA therapy was developed in our ICU. It incorporated as treatment requirements the need of infection, ≥ 3 systemic inflammatory response syndrome criteria, ≥ 2 organ failures (OF), and the absence of European product labeling contraindications. The window-time (WT) from onset of first OF to initiation of DAA therapy, and the assessment of a patient's reasonable expectation of survival due to co-morbidities were left to clinical judgment of the intensivist physician. A retrospective review of treated patients' hospital records was performed. The results are presented as means \pm standard deviations
Results- Between July 2003 and December 2004 20 patients were treated with DAA with a mean age of 60 ± 15.6 years, and an APACHE II score of 25.9 ± 5 . The number of OF was 3.25 ± 0.55 , and all patients but one had septic shock and renal failure. The sites of infection were lung (n=8), urinary (n=4), abdominal (n=3), soft tissue (n=2), and others (n=3). The causal microorganism was identified in 85% of patients, and antibiotic therapy was considered adequate in all cases. The 96 hour infusion of DAA was completed in all patients but 3 due to the following reasons: death at 72 hours due to cerebral death (meningococcal meningitis), thrombopenia (11,000/mm³) at 24 hours, and oral bleeding at 24 hours. The WT for starting therapy after onset of first OF was <24 hours in 15 patients, >24 to 36 hours in 3 patients, and >72 hours in 2 patients. Overall ICU mortality was 25% (5/20), and the ICU median length of stay was 9.5 days. The 2 patients that were treated with a WT >72 hours died. Oral bleeding that led to DAA discontinuation was the only observed drug-attributed adverse event. The patients with a favorable outcome showed a rapid organ function improvement; vasopressors could be withdrawn within 72 hours and 96 hours in 64.2% and 85.7% of the patients, respectively; and recovery of renal function was achieved in 78.6% of the patients within first 72 hours.
Conclusions- In our limited experience with DAA in adult patients by using a clinical practice protocol, considering patients' disease severity, the observed ICU mortality was low. Our data suggest that patients with a favorable outcome show rapid improvement within first days of therapy, and that treatment initiation beyond 72 hours after onset of first organ failure does not modify the clinical course of the disease.

0152 INCREASED SURVIVAL RATES DESPITE A REDUCTION IN VENTRICULAR FIBRILLATION IN OUT-OF-HOSPITAL CARDIAC ARREST IN NORTH-EAST ITALY

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Background: We previously reported the epidemiology and survival rate of out-of-hospital cardiac arrest (OOH-CA) during 1994 in a north-east region of Italy. We now present the results of a second one-year observational, prospective, multicentric study on OOH-CA victims of a local area in the same geographical Italian region.
Methods: The area investigated, Pordenone's province, is representative of the entire region studied in 1994 in terms of geographical characteristics and demographic distribution. The centers enrolled in 2003 serve a total population of 290,000 people. Whereas in the 1994 study, the heterogeneous ambulance personnel was not all trained in basic life support and early defibrillation, extensive training programs and ambulances manned with only emergency medicine personnel assured that all rescuers in 2003 had advanced cardiac life support (ACLS) skills.
Results: The time from dispatch to defibrillation of victims of OOH-CA from cardiac etiology was comparable between 1994 and 2003. However, the rate of ventricular fibrillation (VF) or pulseless ventricular tachycardia (VT) as presenting rhythm decreased significantly between 1994 and 2003 from 30.2% to 20.1% (p < 0.05). Despite this, survival to hospital discharge for victims presenting in VF/VT was almost tripled (from 15.4% to 41.0%; p < 0.05). Hospital discharge rates of patients presenting in asystole or pulseless electrical activity (PEA) remained dismal (3.1% and 1.7%; Table). Overall survival from OOH-CA of cardiac etiology increased from 6.7% to 10.3% (p < 0.05).
Conclusions: Thus, we found that despite a reduction in the rate of VF/VT as presenting rhythm, survival was almost tripled. Manning all ambulances with professional emergency medical personnel and extensive ACLS training may have contributed to the observed improvements in survival rates.

	CPR		ROSC		Hosp. Discharge	
Initial rhythm	1994	2003	1994	2003	1994	2003
VF/VT	30.2%* (104)	20.1% (39)	38.5%* (40)	69.2% (27)	15.4%* (16)	41.0% (16)
Asystole	48.3% (166)	50.0% (97)	12.7% (21)	13.4% (13)	2.4% (4)	3.1% (3)
PEA	21.5%* (74)	29.9% (58)	21.6% (16)	24.1% (14)	4.1% (3)	1.7% (1)
Overall	100% (344)	100% (194)	22.4% (77)	27.8% (54)	6.7%* (23)	10.3% (20)

Out-of-hospital cardiac arrest of cardiac etiology during 1994 and 2003. Data presented as percentage (number of patients); * P < 0.05 vs. 2003. Cardiopulmonary resuscitation (CPR), restoration of spontaneous circulation (ROSC).

0153 GENDER AND HORMONAL MANIPULATION EFFECT ON MORTALITY AND PULMONARY LESION IN THE SEPSIS MURINE CECAL LIGATION AND PUNCTURE MODEL

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INTRODUCTION. Different experimental and clinical publications have founded lower mortality and progression to multiple organ dysfunction in females with sepsis when compared with males.
OBJECTIVE. Determinate if gender and hormonal manipulation have some influence in the development of pulmonary lesions and mortality in the sepsis murine cecal ligation and puncture model.
MATERIAL AND METHODS. Experimental and interventional study. Sepsis was induced in 50 winstar rats by the sepsis murine cecal ligation and puncture model. In all the rats a post-mortem evaluation of lungs was performed by a specialized pathologist. There were 5 groups that included 10 rats each with the following distribution: A) female rats as control group, B) male rats as a control group, C) male castrated rats with subcutaneous administration of 40 µg/Kg of 17-β-stradiol, D) male castrated rats without hormonal supplementation and E) male not castrated rats with subcutaneous administration of 40 µg/Kg of 17-β-stradiol + 25 mg/kg of flutamide. After the intervention the subjects were included for comparison into three different groups: 1) female vs. males controls, 2) castrated males with and without stradiol administration and 3) males not castrated with flutamide administration + stradiol vs. male controls.
RESULTS. The survival was longer in the female control group and the subgroup of castrated males supplemented with stradiol. The lower incidence of pulmonary lesions was in the female control subgroup characterized by congestion and the higher pulmonary lesion was in the male control subgroup with development of micro-abscess.
CONCLUSION. The interaction between gender, sexual hormones and genetic polymorfism determinates the intensity and kind of inflammatory response to infection, progression to multiple organ dysfunction and survival in the sepsis murine cecal ligation and puncture model.

0155 NOVEL THERAPIES IN FULMINANT LIVER FAILURE: MOLECULAR ADSORBENT RECALCULATING SYSTEM (MARS) AND INCOMPATIBLE LIVER TRANSPLANT. CASE REPORT

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Background: Treatment of acute liver failure (ALF) represents a challenge and the support of a PICU and a multidisciplinary team approach is necessary. The shortage of organ donors has established the need to find other options to increase the pool of organs, using live donors, marginal grafts and ABO incompatible transplants. New systems of liver support have been developed, providing detoxifying liver function while the native liver recovers, or as a bridge for the liver transplant. One of those is dialysis, filtration and adsorption systems. The more common technique of dialysis is MARS that selectively eliminates lipophilic toxins linked with albumin, and soluble water toxins through a double filter system.

Objectives: To present the first case of MARS and incompatible ABO liver transplant in a child in our country as a bridge for a definitive liver transplant.

Case report: A 5 year old previously healthy boy was referred to our PICU with ALF of unknown etiology in its second week of evolution. On arrival he had grade III encephalopathy, moderate cerebral swelling in CT scan and abnormal electroencephalogram (EEG) compatible with grade IV encephalopathy. Prothrombin time was 11%, ammonium 186 ug/dl, with intracranial pressure (ICP) between 10-15 mmHg. It was activated for urgent liver transplant. The Pediatric Liver Transplant team and pediatric critical care specialist decided to establish a system of liver support (MARS). The degree of encephalopathy (clinical and EEG), ammonium, blood lactate, blood glucose, ureic nitrogen, prothrombin, total and direct bilirubin, GOT/GPT, GGT, alkaline phosphatase, cholesterol, albumin, blood calcium, and arterial gases was measured at the beginning and at the end of the procedure. The patient was in MARS during 8 hours. Hemofiltration was done simultaneously. Hemodynamic and metabolic stability was obtained after 6 hours of the procedure, with neurological improvement decreasing to grade II encephalopathy, decrease of blood ammonium and a normal EEG. ICP did not change. After the first cycle of MARS the possibility of a transplant with incompatible liver was considered (group A for B), that was made at the eighth day of admission to the PICU, with a protocol with tri-associated immunosupresion (Cyclophosphamide, Cyclosporine and steroids), splenectomy and plasmapheresis according to the rate of antibodies, having a good recovery. Nine days after receiving the incompatible liver transplant, the patient underwent a compatible liver transplant. The outcome is favorable after eleven months.

Conclusions: The use of MARS allowed a metabolic and neurological stabilization of the patient, having no serious complications until a compatible liver transplant could be done. The disadvantage is the high cost involved with this technique. ABO incompatible liver transplant is an acceptable therapy in the case where no other options of a living or cadaveric donor is possible, in a patient in a critical situation as is ALF, being used as a bridge for the definitive transplant.

0156 HANTAVIRUS PULMONARY SYNDROME CLINICAL CHARACTERISTICS

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Background: Hantavirus Pulmonary Syndrome (HPS) is an emergent disease in our country, with 3 endemic areas (Northwest region, Andine region and central region) In Argentina HPS is an important differential diagnosis with other causes of severe community-acquired pneumonia.

On the other hand, early diagnosis, with adequate intensive care and probably the use of corticosteroids, how it was demonstrated in the northwest region, allows a significant reduction in mortality.

Objectives: to describe our experience with nine patients admitted to the intensive care unit (ICU) of the Muñiz Hospital.

Methods: We analyzed retrospectively 9 clinical charts of patients admitted to the Muñiz Hospital ICU from the period of years 2002 to 2004 with serologic diagnosis of Hantavirus (IgM and IgG).

Results: patients came from the province of Buenos Aires, only 4 patients referred outdoor activities; five patients lived in rural or periurban areas.

The majority (8) of the patients presented a prodrome being the most common manifestations headache, myalgia, fever and gastrointestinal complaints. It's remarkable the lack of upper airway manifestations.

During the overt state period of the disease most patients required some kind of respiratory assistance (seven of nine), which was no invasive ventilation CPAP (3/9) or mechanical ventilation (4/9). The average Pao₂/Fio₂ at admission was 241.

The most constant laboratory manifestations were hemoconcentration, thrombocytopenia and high lactate dehydrogenase (LDH) levels in the 100 %, elevated aminotransferases levels in the 78%, leukocytosis 55% and neutrophilia 78%. A 57% of patients had an alteration on renal function.

Chest radiography showed bilateral infiltrates in the 100% of cases with an interstitial or mixed (alveolar-interstitial) pattern.

All patients received treatment with corticosteroids (hidrocortisone or metilprednisolone) and antibiotics for severe community acquired pneumonia.

Mortality was 22 % (2/9).

Conclusions: in our experience the early diagnosis of HPS, in an endemic area, must be considered in the presence of a syndrome with:

- An Influenza-like illness with gastrointestinal complaints and without affection of upper airways followed by
- Respiratory insufficiency of rapid evolution with bilateral infiltrates on chest radiography.
- Laboratory with hemoconcentration, thrombocytopenia, high LDH levels, and in the majority of patients, elevated aminotransferases levels and neutrophilia.

In the presence of this syndrome, early ICU management and probably the use of corticosteroids, could improve the prognosis of the patient.

0157 MEANINGS AND ATTITUDES: IS THERE ANY CORRELATION BETWEEN THESE TWO PSYCHOSOCIAL VARIABLES IN CARDIAC SURGERY PATIENTS?

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Background: Meaning occurs in a representational level where the stimulus that comes from the environment is projected in the brain, and at this point, an inside answer leads to an internal response (the meaning), which is a reaction associated to what a person has learnt between the answer to a concrete object and the sign. To sum up, the sign is something that is accepted to represent something else. The concept of attitude has been used to understand and to explain social behavior since 1918. Many definitions of attitude were presented by several authors since then. However, after 1950s, it was adopted a definition that is almost worldwide accepted, that considers many components. So the attitude was defined as "a complex system, including the people's beliefs about the object, their feelings to the object and the tendency of their actions related to the object".

Objective: This study aims to verify the correlation among patients' meanings and attitudes related to cardiac surgery.

Methods: First of all two instruments of measurement were developed and validated: one to identify the patients' meanings related to cardiac surgery – Meanings of Patients related to Cardiac Surgery (SPCC), and the other instrument was developed to identify the patients attitudes related to cardiac surgery - Beliefs, Values and Feelings (CVSCC). The SPCC scale was composed of three factors called: Factor A= Concepts of positive meanings; Factor B= Concepts of negative meanings; Factor C= Concepts of ambiguous meanings. The CVSCC scale was composed of six factors called: Factor 1= Negative feelings about cardiac surgery; Factor 2= Beliefs about benefits gained throughout a cardiac surgery; Factor 3= Trust on health staff and also on the cardiac surgery; Factor 4= Hope/faith in succeeding in cardiac surgery; Factor 5= Positive feeling that the surgery is necessary; Factor 6= Uncertainty about the result of cardiac surgery. A hundred twenty five patients in cardiac surgery preoperative period were interviewed. The data was analyzed by Pearson's correlation coefficient.

Results: There were some correlations between the two scales, but all of them showed a weak magnitude of signification. Concepts of positive meanings had a positive correlation with hope/faith in succeeding in cardiac surgery. There was a negative correlation between concepts of negative meanings and trust on health staff and also in the cardiac surgery. It also had a positive correlation among the concepts of ambiguous meanings and negative feelings about cardiac surgery, and positive ones that the surgery is necessary and uncertainty about the result of cardiac surgery.

Conclusions: Despite the fact that the correlations between the two scales had been weak and the statistics analysis didn't allow us to differentiate which variable was the cause or effect, the hypothesis that the meanings of patients about cardiac surgery have influence in their attitudes can be considered valid. This information, allow us to have a deeper view about the patients and it leads us to plan a more assertive nursing care.

10158 STUDENT EVALUATION AND INTENSIVE CARE POTS-GRADUATE UNIVERSITY COURSE SELF-EVALUATION PROTOCOLS

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Objectives: To present a student theoretical and hands-on evaluation scheme, and a teaching-learning process self-evaluation scheme carried out by the students. To assess the results of the methodology applied to the course first year.

Materials and Methods: The forms used for the evaluation of students' hands-on work and self-evaluation of the teaching-learning process are presented. The rating for each item in the evaluation form is as follows: 0: not noticed; 1, 2 and 3: unsatisfactory; 4, 5 and 6: satisfactory; 7, 8 and 9: superior. Students take a written exam at the end of each theoretical module of the program. Active inpatient work and duty shifts are as follows: daily attendance and 12- and 24- hour on-duty shifts. All daily activities are recorded in a book. Problem patients and procedures performed are recorded by each student individually in a form.

Results: The number of hours entered from May 3, 2004 to February 10, 2005 was: F. D.: 2840 hours and 697 problem patients; G. C.: 2908 hours and 697 problem patients; E. B.: 1728 hours and 448 problem patients; this latter started on September 1, 2004 after the second call.

I) Student evaluation by the chair:

1. A similar and coincident score between the theoretical and hands-on evaluation was observed in each student although the rating for the former was on a 0 to 9 basis and for the latter 0 to 10.
2. Students' overall average was 7.30 (superior) for the hands-on evaluation and 7.77 for the theoretical one.
3. After getting the results of the evaluation, the students anonymously answered they agreed with: the items assessed, the scores allotted and their objectivity.
4. The results of the theoretical evaluations improved over the course of the year.

II) Evaluation of the teaching-learning process by the students:

- 1) The average for the progress of the theoretical modules was 8.66 (superior).
- 2) The average for the progress of bibliographic classes was 5.83 (satisfactory). This made us think of introducing modifications.
- 3) The scheme for the evaluation of theoretical modules averaged 8.07 (superior).
- 4) Active inpatient work averaged 8.23 (superior).
- 5) Scientific activity developed averaged 7.99 (superior).
- 6) Chair participation in other activities within the University averaged 7.55 (superior).
- 7) The overall average for this self-evaluation was 7.74 (superior).

Conclusion: The number of hours recorded for hands-on activity exceeds the objectives pre-set. The overall average student evaluation score was superior. The average self-evaluation score was superior. This kind of student evaluation that assesses their daily and permanent activity and averages this performance with the theoretical evaluation scores is more objective. The self-evaluation process carried out in this case by the students enables the modification of the teaching-learning process while it is under way.

10159 A COMPARISON OF TWO VENTILATOR MODES IN PEDIATRIC PATIENTS WITH ACUTE LUNG INJURY AND ACUTE HYPOXEMIC RESPIRATORY FAILURE

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Objectives: To compare clinical outcomes of infants and children with acute lung injury (ALI) and hypoxemic respiratory failure (AHRF) and treated with volume limited ventilation (VLV) or pressure limited ventilation (PLV).

Patients: Between January 1 2002 and December 30 2004, all children older than 1 month and less than 10 years of age admitted to our Pediatric Intensive Care Unit (PICU) were eligible for inclusion in this study. Inclusion criteria were a) acute onset of respiratory failure over less than 48 h, b) evidence of hypoxemia (arterial oxygen tension to fraction of inspired oxygen ratio of less than 300 mmHg, for at least six consecutive hours on the day of PICU admission c) no evidence of left atrial hypertension. Patients with acute respiratory failure on chronic pulmonary, asthma, HIV, immunocompromise, malignancy, cerebral haemorrhage, burn, neuromuscular disease, TEC and coma were excluded.

Protocol: Patients were randomly assigned to VLV or PLV. In both, VLV and PLV the ventilatory strategy employed was one of protective ventilation (target paO_2 around 60 mmHg, provided $pH > 7.20$) with limitation of plateau inspiratory pressure (< 32 cm H₂O) while employing mean airway pressures to ensure maximum lung volume recruitment via the use of peak end expiratory pressure and inverse inspiratory: expiratory ratios. On the daily basis, during the course of MV, the following events were assessed for a maximum of 28 days: acute respiratory distress syndrome (ARDS), barotrauma, coagulopathy, hepatic failure, pneumonia, sepsis and renal failure. The arterial blood gas measurements and corresponding settings were recorded daily while patients were mechanically ventilated. All patients were followed-up until discharge from the PICU or death.

Statistical analysis: We have calculated that 96 patients were needed in each group to detect a 20 % difference in the rate of mortality (from the expected 43 to 23 %) at power of 80 % with a two tailed type I error of 0.05. Data are shown as median with 25th -75th percentile range or percentages as appropriate. All categorical variables were analysed with the chi square test or Fisher's exact test. Comparison of continuous variables among the two groups was made with Student's t test or Mann-Whitney test.

Results: During the period of study 356 infants and children received MV for AHRF. After excluding of those patients who meet the exclusion criteria, a total of 230 remained.

Of the 115 patients in the VLV group, 27 % (CI 95 %: 15-30) of children did not survive to PICU discharge. Of the 115 patients in the PLV group 22 % (CI 95 %: 15-30) of children did not survive to PICU discharge. In the VLV and PLV groups, neither the duration of MV (9.07 ± 8.1 vs. 9.5 ± 7.86 , respectively, $p=0.59$) nor the lengths of stay in PICU (14.9 d ± 14.9 vs. 12.7 d ± 10.3 , respectively, $p=0.54$) were different.

Conclusion: We have demonstrated that the implementation of a strategy protective to MV in infants and children with acute lung injury ventilation and AHRF is equally effective either in VLV or PLV

10160 ALANINE SERUM, ADHERENCE AND LOSSES IN CONTINUOUS RENAL REPLACEMENT THERAPIES IN CRITICAL ILL PATIENTS

MG Rodríguez, DR Salgado, F Ruzany, CF Valente, E Maccariello
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Introduction: Continuous renal replacement therapies (CRRT) readily allow for the nutritional support of these high catabolic states, but also contribute to the nitrogen loss through filtration of free amino acids and small peptides across the hemofilters. Amino acids clearances and calculated losses in adults on continuous venovenous hemofiltration(CVVHD) have been reported in the range of 2% a 11% of dietary intake. Alanine is an very important amino acid utilized as fuel in critical ill patients.

Objective: To analyse alanine serum, losses and adherence from CRRT treatments in critical ill patients.

Material and Methods: Paired samples from serum, venous and dialysate /ultrafiltrate were obtained during CRRT procedures from 41 patients in a 27 beds of intensive care unit from July 2002 to May 2003. Paired samples were collected from 1,6,12, 24,36 and 48hours of continuous hemodialysis, total of six samples of serum, venous and dialysate. PAN 650 filters were used in all patients. Blood flows was 150ml/min in all patients and the dialysate flow during CVVHD was 16,6ml/min. Amino acids assay, by using high-pressure liquid chromatography(HPLC)-serum, venous and dialysate were performed by laboratory CTN and Pardini.

Results: Patient age average was 73,08(43 to 88 years) years and APACHE II score was 18,37(11 to 28). Serum, venous and dialysate amino-acids were obtained in forty one patients and alanine (μ Mol/l)was analysed. Alanine demonstrated to be increased in critical ill patients (580μ Mol/l- 113.73%). Alanine loss was very important and corresponded to 10.52% (0.52g/d) of total lost (4.96g/d). Alanine adherence was the most important at study and corresponded to 3.11g/d, as demonstrated below.

CONCLUSION:

Alanine is very important in critical ill patients. The alanine demonstrated to be an important amino acid essential in sepsis or catabolic patients, greatly consumed (lost and adherence). Our conclusion is that we should not estimate the alanine necessity in a septic or trauma patient on CHVVD based exclusively on the AA loss. Other factors, such as the adsorption of AA, may contribute to the continuous catabolism seen in these critically ill patients.

0161 POST TRAUMATIC STRESS SYMPTOMS IN PATIENTS AND THEIR PARENTS AFTER ADMISSION TO PEDIATRIC INTENSIVE CARE

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Background

The growing literature on psychological outcomes after admission to PICU indicates that children, and their parents, regularly suffer significant levels of post traumatic stress at follow up (1,2). And yet such evidence as is available, suggests that children remember very little of their admission (3). Memories of delusional experiences such as nightmares and hallucinations have been shown to be significantly related to the development of post traumatic stress symptoms in adult patients after intensive care (4).

Objectives

To determine rates of post traumatic symptoms in children and their parents and the correlation between child and parental stress, after discharge from PICU.

To examine associations between demographics; admission related factors and memories and distress.

Methods

In this study, a cohort of 51 children aged 7 years and over, were interviewed three months after discharge, about their memory for events during admission. They and their parents also completed questionnaires about their current psychological state.

Results

In all, 25% of the children and 69% of parents scored above the accepted cut offs on trauma scales, suggesting they were at risk of developing post traumatic stress disorder. The correlation between parent and child scores was 0.42 ($p=0.002$). No association was found between child's level of post traumatic stress symptoms and their age, sex or length of stay. However where the admission was unplanned, trauma scale scores were significantly higher for parents ($p=0.001$) and children ($p=0.014$). Furthermore, of those children admitted as an emergency ($n=44$), those reporting delusional memories had higher scores than those who did not ($p<0.039$).

Conclusions

Both children and parents reported significant levels of post traumatic stress after admission to PICU. Whilst parents were most often disturbed by their experience of the admission itself, children were more likely to be preoccupied by the circumstances leading up to the admission (eg accident or difficulty breathing), by incidents on the general ward after the admission or by hallucinations and nightmares they experienced around the time of discharge. The latter finding may have implications for sedation weaning protocols.

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0162 AMINO-ACID (AA) LOSSES IN CRITICALLY ILL PATIENTS WITH RENAL FAILURE ON CONTINUOUS VENO-VENOUS HEMODIALYSISMG Rodrigues, DR Salgado, RNA Paiva, M Elizabeth, F Ruzany
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INTRODUCTION: Amino-acid (AA) losses in critically ill patients with renal failure on continuous veno-venous hemodialysis (CVVHD) has been a major concern.

OBJECTIVE

The present study analyzed the plasma levels, dialyze, loss and adsorption of twenty-three AA in forty-one patients with acute renal failure (ARF) submitted to CVVHD in the intensive care unit.

MATERIAL AND METHODS: The patients had progressed to ARF during the course of sepsis or severe trauma, and the majority had developed three or more organ failures by the time the CVVHD was installed. The APACHE II score was calculated for each patient.

The CVVHD was performed with a PAN 650SF/900 dialyser, the blood inflow was set at 150 mL/min and the dialysate outflow was set at 1L/h with a variable ultrafiltration rate. The equipment employed was the ADM-B.Brawn using a sterile dialysis solution with a bicarbonate buffer (Pronep-RJ). Sodium citrate or a low molecular weight heparin were used as anticoagulants.

The samples for the measurement of AA in plasma and in the dialysate were collected serially in pre-defined intervals: before the beginning of the CVVHD (zero hour) and six, twelve, twenty-four, thirty-six and forty-eight hours after the beginning. The blood samples were centrifuged, frozen and analyzed by High Performance Liquid Chromatography. The dialysate was kept in a refrigerated recipient during collection time (six or twelve-hours volume).

RESULTS: Contrary to the findings in critically ill patients without renal failure, we observed that the blood level of the AA pool pre-CVVHD was slightly higher (6.06%) than the upper normal value. The only depletion observed from the total AA pool, were that of Cystine and Glutamine but we did not find any further significant plasma level reduction post CVVHD.

The AA with the higher rates of loss in 24 hours to the dialysate effluent, separated as essentials and non-essentials were: 1- essentials; Valine (0.45g/d – 7%) and Lysine (0.34g/d- 5.3%), 2- non-essentials ; Alanine (0.51g/d – 10%); Glycine (0.34g/d – 8%) and Glutamine(0.67g/d – 14%). The AA loss was neither related to the duration of the CVVHD nor to the plasma AA levels.

These results, similar to other published studies, demonstrated an AA loss of approximately 5.0 g a day, a discrete amount when compared to the adsorption, estimated at 33 g a day in our study (6 to 7 times superior to the AA loss to the dialysate effluent). The adsorption rate was variable: 25.18 g / 24h (twenty four hours) to 43.14 g / 24h (thirty-six hours). The adsorption was higher with: glutamine (8.4g/24h), alanine (3.11g/24h), glutamic acid (2.43g/24h) and proline (2.10g/24h).

CONCLUSION

Our conclusion is that we should not estimate the protein necessity in a septic or trauma patient on CHVVD based exclusively on the AA loss. Other factors, such as the adsorption of AA, may contribute to the continuous catabolism seen in these critically ill patients.

0163 AMINO ACIDS ADHERENCE IN CONTINUOUS RENAL REPLACEMENT THERAPIESMG Rodrigues, DR Salgado, RNA Paiva, F Ruzany, CF Valente
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Introduction: Continuous renal replacement therapies (CRRT) readily allow for the nutritional support of these high catabolic states, but also contribute to the nitrogen loss through filtration of free amino acids and small peptides across the hemofilters, and possible adherence of amino acids.

Objective: Evaluate amino acids adherence in CRRT

Material and Methods: Paired samples from serum, venous and dialysate /ultrafiltrate were obtained during CRRT procedures from 41 patients in a 27 beds of intensive care unit from July 2002 to May 2003. Paired samples were collected from 1,6,12, 24,36 and 48hours of continuous hemodialysis, total of six samples of serum, venous and dialysate. PAN 650 filters were used in all patients. Blood flows was 150ml/min in all patients and the dialysate flow during CVVHD was 16,6ml/min.

Amino acids assay, by using high-pressure liquid chromatography(HPLC)-serum, venous and dialysate were performed by laboratory CTN and Pardini.

Adherence was calculated as: Clearance Hemodialysis(C.H./Serum clearance(S.C.); $C.H.=16.6 \times \text{dialysis} / \text{serum aminoacids}$; $S.C.=150 \times (\text{serum aminoacids}-\text{venous aminoacids}) / \text{dialysate amino acids}$;

Results: Patient age average was 73,08(43 to 88 years) years and APACHE II score was 18,37(11 to 28). Serum, venous and dialysate amino-acids were obtained in forty one patients and analysed 23 amino acids ($\mu\text{Mol/l}$): aspartic acid, glutamic acid, Alanine, Arginine, Asparagine, Cystine, Phenylalanine-, Glycine, Glutamine, Hydroxyproline, Histidine, Isoleucine, Leucine, Lysine, Methionine, Ornithine, Proline, Serine, Taurine, Tyrosine, Threonine, Tryptophan, Valine. Analysis were done by average of amino acids.

Adherence was not statistically significantly, and do not correlate nor with time of hemodialysis neither with serum amino acids.

Amino acids Adherence were more pronounced with: glutamine (8.4g/day), alanine (3.11g/day), glutamic acid (2.43g/day), proline (2.1g/day) and glycine (1.3g/day).

Amino acid adherence was 6 to 7 times superior to the AA loss to the dialysate effluent. The adsorption rate was variable: 25.18 g / 24h (twenty four hours) to 43.14 g / 24h (thirty-six hours).

CONCLUSION

Our conclusion is that we should not estimate the protein necessity in a septic or trauma patient on CHVVD based exclusively on the AA loss. Other factors, such as the adsorption of AA, may contribute to the continuous catabolism seen in these critically ill patients.

0164 GLUTAMINE SERUM, ADHERENCE AND LOSSES IN CONTINUOUS RENAL REPLACEMENT THERAPIES IN CRITICAL ILL PATIENTS

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Introduction: Continuous renal replacement therapies (CRRT) readily allow for the nutritional support of these high catabolic states, but also contribute to the nitrogen loss through filtration of free amino acids and small peptides across the hemofilters. Amino acids clearances and calculated losses in adults on continuous venovenous hemofiltration (CVVHD) have been reported in the range of 2% a 11% of dietary intake. Glutamine is a very important amino acid in critical ill patients.

Objective: To analyse glutamine serum, losses and adherence from CRRT treatments in critical ill patients.

Material and Methods: Paired samples from serum, venous and dialysate /ultrafiltrate were obtained during CRRT procedures from 41 patients in a 27 beds of intensive care unit from July 2002 to may 2003. Paired samples were collected from 1,6,12, 24,36 and 48hours of continuous hemodialysis, total of six samples of serum, venous and dialysate. PAN 650 filters were used in all patients. Blood flows was 150ml/min in all patients and the dialysate flow during CVVHD was 16,6ml/min. Amino acids assay, by using high-pressure liquid chromatography(HPLC)-serum, venous and dialysate were performed by laboratory CTN and Pardini.

Results: Patient age average was 73,08(43 to 88 years) years and APACHE II score was 18,37(11 to 28). Serum, venous and dialysate amino-acids were obtained in forty one patients and analysed Glutamine (µMol/l). Analyses were done by average of amino acids.

Statistical calculations were by analysis of variance, linear, non linear and loraticim regression.

CONCLUSION:

Glutamine is very important in critical ill patients. The glutamine demonstrated to be decreased, probably as an amino acid essential in sepsis or catabolic patients, greatly consumed. Our conclusion is that we should not estimate the protein necessity in a septic or trauma patient on CHVVD based exclusively on the AA loss. Other factors, such as the adsorption of AA, may contribute to the continuous catabolism seen in these critically ill patients.

Time	serum glutamine(µMol/l)
1hour	675.03
6hours	521.387
12hours	587.9
24hours	408.34
36hours	458.16
48hours	700.3

Time	Losses glutamine(µMol/min)
1hour	1570
6hours	2053.711
12hours	1032.207
24hours	2706.815
36hours	1457.058
48hours	2469.771

0165 EPIDEMIOLOGIC PROFILE OF NOSOCOMIAL INFECTIONS IN A PEDIATRIC INTENSIVE CARE UNIT

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Background: Nosocomial infections(NI)are one of the most important causes of morbidity, mortality and increased length of stay in pediatric intensive care units(PICU).

Objectives: Describe the clinical-epidemiologic pattern of NI in a PICU in a developing country.

Methods: Prospective cohort study of all patients admitted to the PICU from october2003 to september 2004 using the National Nosocomial Infection Surveillance System(NNISS)methodology.

Definitions of the Center for Disease Control and Prevention(CDC)were used to diagnose NI.Descriptive analyses were performed to characterize the patient population.Student's t- test was performed to compare age, pediatric risk of mortality score(PRISM)and length of stay in infected and non infected patients.Chi-squared test was performed to compare mortality between them.A p-value ≤0.05 was considered statistically significant.

Results: During the study period 542 patients were admitted in the PICU.14.9%(81/542)presented at least one episode of NI.We studied 148 episodes of NI which represent 1.8 episodes per patient.54.3%(44/81)of the infected patients were males.6.1%(5/81)malnourished and 9.8%(8/81)immunocompromised.The mean age of infected patients was 35.2 months vs 67.8 months in non infected ones.(p<.0001)The mean PRISM of infected patients was 16.4 vs 9.13 in non infected ones.The mean infection rate per 1000 patients day was 29.3(148/5050).

Primary bloodstream infections were the most common NI(27%) followed by urinary tract infections(25.6%)and pneumonia(25%). Clinical sepsis were in the fourth place with an incidence of 12.8%.The device utilization rate for mechanical ventilation, central venous catheter and urinary catheter was 75%, 51.4%and 38.4% respectively.The ventilator associated pneumonia rate was 9.13 per 1000 ventilator days(35/3831), central line related bloodstream infection rate was 8.8 per 1000 catheter days(23/2619) and the urinary tract catheter associated infection was 16.4 per 1000 urinary catheter days(32/1949).75.1% of the NI episodes were microbiologically documented (112/148).Gram negative bacterias were the most common pathogens identified(62.5%)followed by gram positive bacterias and yeasts(18.8% respectively).The time of onset of the first episode of NI was during the second week of hospitalization(mean 11.7 days;median 9 days).The mean length of stay of infected patients was 37.3 days vs 4.4 days of non infected ones(p<.0001).The mortality rate of infected patients was 38.2%(31/81)vs 15.4%(71/461)of non infected ones.(p<.0001).

Conclusions: Primary bloodstream infections were the most important NI in this PICU. The rate of device utilization is high, particularly of mechanical ventilation. Urinary tract infection was the most common type of associated device infection. Patients affected by NI are iller and younger when compared with non infected ones.The length of stay of patients with NI is longer than in non infected ones. Gram negative bacterias were the most common etiologic agents identified and yeasts had an important role.

0167 EXHALED CARBON MONOXIDE IN A MODEL OF ACUTE RESPIRATORY DISTRESS SYNDROME

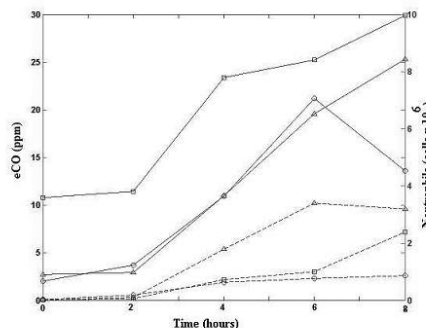
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Background/objectives: Although exhaled carbon monoxide (eCO) measurements are clinically useful to detect inflammatory lung disorders, as asthma and cystic fibrosis, there is a lack of studies about the role of eCO associated with the Acute Respiratory Distress Syndrome (ARDS) and mechanical ventilation. This study aimed to evaluate eCO measurements in mechanically ventilated piglets with ARDS and to relate eCO with lung mechanics and to inflammatory markers obtained from the Bronchoalveolar Lavage (BAL).

Methods: Twelve mechanically ventilated Landrace/Large White piglets were divided in two groups: ARDS (n=10) and Control (n=2). In the ARDS group, the acute lung injury (ALI) was obtained (PaO₂/FIO₂<200) by means of an intravenous oleic acid infusion. The exhaled gases were sampled in tedlar gas bags (SCK, EUA), through a gas sampling device attached to the distal end of the expiratory limb of the ventilator circuit. The first eCO sample was obtained just after animal instrumentation and sedation. Eight successive samples were collected for each animal, with one hour interval between samples. The first three samples were obtained prior to ALI induction. Lung mechanical parameters were continuously recorded throughout the experiment. For all animals, BAL was collected at the end of the experiment, six hours after ALI in the ARDS group. In 3 animals from the ARDS group, BAL was also obtained every two hours. The analysis of eCO was performed by gas chromatography. Data were expressed as mean ± SEM. Serial measurements were analyzed with the Wilcoxon signed ranks test and the correlations with the Pearson test.

Results: The basal eCO for all animals was 5.8 ± 1.8 ppm. The end-experiment eCO was 20.3 ± 5.3 ppm and 2.95 ± 1.7 ppm, respectively for the ARDS and Control groups. Comparing pre-injury eCO to end-experiment eCO, ARDS group showed significant differences (p=0.002). No correlation was found between eCO and lung elastance (r=0.19, p<0.09). The figure shows the time evolution of eCO and Neutrophils (PMN) obtained in 3 of the ARDS animals. The correlation coefficient between eCO and Neutrophils was 0.84 (p<0.01). In the Control Group, eCO did not change throughout the experiment.

Conclusions: The high eCO found at the end-experiment in the ARDS Group seemed to be related to ALI and not to the ventilatory therapy since the Control Group was ventilated with the same settings and did not present increased eCO. The eCO may reflect pulmonary injury in ARDS and may be a useful non-invasive technique to manage inflammatory lung disorders in mechanical ventilation.



Time evolution of exhaled carbon monoxide (eCO, —) and Neutrophils (---). Each animal was identified by a symbol. Time = 2 hours indicate ARDS induction.

0168

CORRELATION BETWEEN ARTERIO-INTRAMUCOSAL PCO₂ GAP AND INTESTINAL PERMEABILITY IN MULTIPLE INJURED PATIENTSL. Kompan¹, I. Vovk²

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BACKGROUND: To define intestinal permeability (IP) and gastric mucosal-arterial pCO₂ gradient (pCO₂ gap) changes during the first 4 days after multiple injury and to analyse their relationship with the patients' outcome.

METHODS: Consecutive multiply injured patients with an injury severity score (ISS) above 18 admitted to the multidisciplinary surgical intensive care unit (ICU) of the university hospital were studied prospectively.

On days 2 and 4 IP was measured using a lactulose and mannitol solution given enterally (L/M index). Measurements of pCO₂ gap were done by the automated air tonometry system (Tonocap®). PCO₂ gap was calculated in 12 hours after admission and subsequently three times daily for four days. Multiple organ failure (MOF) scores were calculated daily.

RESULTS: 39 patients age 40.1±18.4, ISS 32.4±11.2, APACHE II on admission 13.4±5.9 met the inclusion criteria. Average L/M on day 2 was 0.10±0.18, on day 4 0.32±0.53. Admission pCO₂ gap was 1.5±1.5 kPa, average pCO₂ gap 1.6±1.5 kPa. Patients ICU stay was 19.8±15.9 days. All patients but one survived their ICU treatment, their average MOF scores were 1.9±1.1. Two patients who dropped out due to measurement failure died later on, and both had high gastric residual volume.

We have found no correlation between L/M index on day 2 and 4 and pCO₂ gap values measured at the same time. Moreover, no correlation between admission pCO₂ gap, average pCO₂ on one side and ICU stay, days of mechanical ventilation, ISS, and APACHE II on the other side has been found. We were also unable to establish an association between MOF score and pCO₂ gap, but MOF score correlated with L/M index determined on day 4 (r=0.85, p=0.02, 95% CI of coefficient 0.12 to 1.58).

Average gastric retention volume during the first four days following admission was 809±630 ml and was inversely correlated to average pCO₂ gap (r=-0.33, p=0.037, 95% CI of coefficient -0.58 to -0.02).

CONCLUSIONS: Gastric intramucosal acidosis need not necessarily lead to mucosal injury and a consequent increase in IP, because pCO₂ gap reflects merely perfusion of the local gastric mucosa and not that of the entire hepato-splanchnic region. Use of automated gas tonometry in patients on intragastric nutrition might also cause measurement errors. Therefore, the clinical utilities of pCO₂ gap remain to be further explored and it cannot yet be recommended for routine use in multiply injured patients.

0170

PLASMA AMINO ACIDS IN CRITICALLY ILL PATIENTS

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Introduction: Stress states, Sepsis, trauma, markedly increases protein catabolism in skeletal muscle, gut, and connective tissue. Catabolism is potentiated by a sepsis induced decrease in amino acid uptake in skeletal muscle. One third of the total amino acid output from skeletal muscle is glutamine and one third is alanine.

Objective: Demonstrate the concentration of plasma amino acids in critical ill patients.

Material and Methods: Prospective analysis of 41 patients (17 women and 24 men) admitted in a 27 beds intensive care unit (ICU) from July 2002 to May 2003. Twenty four amino acids were analysed in each patient up 24 hours of admission in ICU. Amino acids assay, by using high-pressure liquid chromatography (HPLC), were performed by laboratory CTN and Pardini.

Results: Patient age average was 73,08(43 to 88 years) years and APACHE II score was 18,37(11 to 28). Plasma amino-acids were obtained in forty one patients and analysed 23 amino acids (µMol/l):

The total value of plasma amino acids was 4257,475 µMol/l (average). The dosage of plasma aminoacids were as: aspartic acid- 75.95, glutamic acid-384.45, Alanine-587.1 Arginine-84.45-, Asparagine-78.5, Cystine-497.55, Phenylalanine- 179.2, Glycine- 497.55, Glutamine-413.25-, Hydroxyproline- 58.25, Histidine- 84.55, Isoleucine-90.325, Leucine- 195.5, Lysine- 190.05, Methionine- 48.85, Ornithine- 118.65, Proline- 201.5-, Serine- 156.75, Taurine- 167.25, Tyrosine- 127.85, Threonine- 167, Tryptophan- 51.925, Valine- 278.975.

CONCLUSION: The concentrations of alanine, glutamic acid, aspartic acid, phenylalanine and arginine were more elevated than the others. The glutamine demonstrated to be decreased, probably as an amino acid essential in sepsis or catabolic patients, greatly consumed.

AMINO ACIDS	PLASMA VALUES	NORMAL VALUES	percentual values
ASPAC	78.26	1303	33%
GLUTAC	383.9	98	392%
ALANINE	580	510	114%
ARGININE	82	64	128.13%
ASPARAGINE	88	130	67.7%
CISTINE	15	65	23.08%
PHENILALANINE	172	68	253%
GLICINE	498	330	151%
GLUTAMINE	356	650	55%
HYDROXYPROLINE	49	30	163.3%
HISTIDINE	105	120	87.4%
ISOLEUCINE	87	100	87%
LEUCINE	196.6	170	115.6%
LISINE	208.4	220	95%
METIONINE	41.1	30	137%
ORNITHINE	152.7	80	190.9%
PROLINE	168	360	46.7%
SERINE	164	140	117%
TAURINE	197	130	207.4%
TYROSINE	128.0	74	173%
THREONINE	160.5	240	67%
TRYPTOPHANE	53.1	140	38%
VALINE	279	310	90%
TOTAL	4242.55	4065	106.06%

0171

MICROBIOLOGY BIOFILM ANALYSIS OF INTERNAL SURFACE IN SHORT TERM PERMANENCY CENTRAL VENOUS CATHETER(CVC) IN INTENSIVE CAREEL Paz¹, M Salazar², M Medina¹, I Coronado¹, O Merino¹, G Salcedo¹, E Montenegro¹, R Lopez¹

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BACKGROUND

Biofilm, extracellular polymers primarily polysaccharides, are seen outside and inside the lumen by electronic microscopy or indirect biochemistry and not all bacterias are able to produce it. Commonly in short periods of time, less than 10 days, the external part is colonized; and in longer periods, more than 30 days, biofilm is formed in the lumen.

OBJECTIVES

- .To know the real incidence of the biofilm in the internal surface of short period of time of permanency catheter.
- .To identify the more frequent germs in the internal catheter surface and the relationship with external surface germs.
- .To know which germs are able to produce biofilm.

METHODS

5 cm. of the removed catheter tips were used with the rolling method on agar blood plates-sheets for external microbiologic study.

Both ends of catheters were sealed and disinfected by immersing in 0.52% rated sodium hypochlorite for 10 minutes and neutralized by immersing in sodium thiosulfate 0.12M for 1 minute, then the sample was retired and rinsed with sterile PSB. The sample was processed with a 42kHz frequency per 3 cycles of 30 seconds followed by vortexed during 30 seconds. Then it was sowed in TSA (Trypticase Soy Agar) Agar McConkey, mannitol-sal agar, cetrimide agar and Agar Saboreaud being incubated the plates by 24 hours at 37 °C. After the identification, it is essayed the ability of producing biofilms sowing the germs in Congo red agar, being incubated for 24 hours at 37° C and at environment temperature for 24 more hours. The biofilm producer bacterias develop black colonies and red colonies are developed by bacterias that do not produce biofilm.

RESULTS

From the 100 samples, 48% did not show external growth. The remaining 52% showed the following growth:

S.aureus 16, S.coagulasa negative 31, Paeruginosa 2, Enterobacter sp 2 and Citrobacter sp 1.

During isolation after the internal surface procedure in 40 (40%) samples it was isolated germs being the S.coagulasa negative 28 (28%), S. aureus 10 and Paeruginosa 2. These 40 isolated stumps were carried out the test of capability biofilm maker, finding that 4 (10%) were S. aureus stumps, and 26 (65%) S.coagulasa negative.

SUMMARY

One hundred CVC with a placement duration less of 10 days were sampled and 52% showed bacterial colonization in the external part of the catheter, with a predominant isolation of the genus which agrees with the reports that point out that Staphylococcus is tied to the infections by catheter.

Furthermore the isolated samples from the internal surface were 40% of the total, existing a direct correlation between the isolated ones from the external part with those from the lumen. 75% of the isolated bacterias from the lumen were able to make biofilms in short periods of time (Gram positive bacterias).

0172 NURSE-DRIVEN INSULIN TITRATION IS EQUALLY EFFICACIOUS AND SAFE IN A CARDIOTHORACIC ICU

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BACKGROUND/OBJECTIVES: In 2001, results of a large randomized ICU trial indicated that intensive glucose control decreased morbidity and mortality in a surgical ICU. In that trial blood glucose (BG) levels were maintained between 80-110 mg/dL by use of insulin infusions administered by protocol. In 2003, we began use of a similar detailed protocol order set to maintain glucose levels between 80-110 mg/dL in cardiothoracic (CT) surgery patients. However, despite various types of educational efforts we noted significant problems with nursing satisfaction in managing glucose in this manner. Therefore, we sought a system that would achieve glycemic control that would have improved nursing satisfaction and "buy-in." Here we report the results of this experience.

METHODS: During June through September 2004, 149 patients were treated with our insulin infusion titration order set by the bedside nurse based on frequent BG measurements. Then during October 2004 through January 2005, 150 patients were treated via insulin infusions with titrations made by the bedside nurse based on her/his clinical judgment using similar frequent BG monitoring. In both study periods the glucose goal was 80-110 mg/dL. Data collected included all glucometer readings (Lifescan, Johnson & Johnson, USA) obtained during the ICU stay. Descriptive statistics of glucose control and hypoglycemia are presented.

RESULTS: Table

CONCLUSIONS: We conclude that use of the 2 different systems led to clinically equivalent and reasonable glycemic control with the mean BGs of 117-118 mg/dL, despite both regimens resulting in BGs slightly above the goal. Hypoglycemia was an uncommon event, and its incidence was similar between control systems. In our experience, it is difficult to maintain BG between 80 and 110 in the ICU setting. We believe ICU nurses can use their judgment to titrate insulin, as long as surveillance systems are in place to detect problems, monitor for the incidence of hypoglycemia, and provide feedback. However, the success of our nurses with this regimen may have been enhanced since they had been aggressively managing glucose for over a year with an order set. Intensive glucose control requires ongoing nursing efforts and their "buy-in" is important. Surveys of our nurses indicate significant improvements in their satisfaction using nurse-driven titration. Currently we are assessing whether nurse-driven insulin titration is safe and can achieve BG control throughout other ICUs in our hospital.

Treatment Group	Detailed Order Set Driven Titration	Nurse-Driven Titration
Number of Patients	149	150
# BGs Performed	10,044	7,249
Mean BG ± SEM (mg/dL)	118.0 ± 0.4	117.3 ± 0.4
%BG 80-110 (mg/dL)	43.6	45.2
%BG 70-150 (mg/dL)	81.8	85.9
%BG Below 40 (mg/dL)	0.02	0.00
#BG Below 40 (mg/dL)	2*	0*
%Nurses Satisfied with Protocol	67	96

*No evidence of complications from hypoglycemia was documented.

0174 THE MOST FREQUENT NURSING DIAGNOSIS IN THE PATIENTS SUBJECTED TO THE CONTINUOUS RENAL REPLACEMENT THERAPIES

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1-INTRODUCTION: Cardiopathy patients develop in specific situations Acute Renal Insufficiency (IRA), which triggers important physiological alterations and require treatment, due to their hemodynamic repercussions. Some of the most used treatment methods are called the Continuous Renal Replacement Therapies (CRRT). The nursing team is responsible for the direct assistance to the patient, it is essential that the nurse takes appropriate decisions regarding the necessary interventions to obtain the expected results. Therefore, it is vital to identify the nursing diagnosis in this group of patients, this is an essential step in the systematization of the nursing assistance.

2-OBJECTIVE: Identify the most frequent nursing diagnosis in the patients subjected to Continuous Renal Replacement Therapies.

3-METHOD: A descriptive and prospective study, that was held in the period between April and September 2004 in 12 patients subjected to CRRT. The data collection was done through an instrument specially formulated for the research.

4-RESULTS: Eight (8) most common nursing diagnoses were identified according to the relative absolute frequency of related factors present in such group of patients. They represent the physiological and/or pathological answers that those individuals present in this specific situation and contribute to direct the nursing actions.

5-CONCLUSION: This study made evident the importance of identifying the nursing diagnosis in a group of patients which go through specific situations to obtain quality nursing assistance, directed to the individual real needs. In doing so, it becomes possible for the nurse to propose actions that ensure a good effectiveness and efficiency based on scientific principles.

0175 ELECTROPHYSIOLOGICAL MONITORING DURING CARDIAC SURGERY IN HIGH-RISK PATIENTS

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Background and Objectives:

Cerebral ischemia is a serious complication of cardiac surgery in high-risk (age>75, history of stroke, carotid stenosis, vascular encephalopathy, diabetes mellitus) surgical candidates. The aim of this study was to evaluate the importance of each particular risk factor for the development of cerebral ischemia using electroencephalography (EEG) and somato-sensory evoked potential (SEP) monitoring. If cerebral ischemia was detected, the impact of possible therapeutic interventions was also evaluated.

Methods:

32 high risk patients with a mean age of 66±8 undergoing on pump cardiac surgery were prospectively monitored. Mean time of surgery was 203 min, time on pump 90 min. Standard anesthesia was used without inhalation anesthetics, and 13 patients had thoracic epidural analgesia. EEG and median nerve SEP were continuously monitored. Severity of electro-physiological changes was graded on a scale of 1-4 and a relationship to the phase of surgery was annotated. When electro-physiological changes were detected neuroprotective interventions such as elevation of mean arterial pressure (MAP), increase of FiO2 to 100%, increase of cardiac output by means of inotropes or increase of bypass flows were evaluated. The effect of interventions was evaluated in the context of return of electro-physiological parameters to the baseline.

Statistics:

Nonparametric univariate tests were used to test the relationship of electro-physiological changes with patient's age, duration of surgery and bypass, presence of diabetes and hypertension.

Results:

Changes in cerebral perfusion were detected in 22 (69%) patients. Seven of those occurred during the initiation of bypass, 7 at crossclamp or crossclamp release, 8 during side biting clamp and 6 during episodes of low MAP. There was a significant relationship between changes in cerebral perfusion detected by electro-physiological parameter changes and patient's age, duration of surgery and bypass, (all p<0.001). Combined operations were characterized by more severe changes. Detected electro-physiological changes were partially restored by the above mentioned therapeutic interventions.

Conclusions:

Changes in cerebral perfusion are present in certain phases during on pump cardiac surgery and if detected early can be partially influenced by neuro-protective interventions that might prevent the development of stroke.

0176 CURCUMIN, A NUCLEAR FACTOR KAPPA BETA INHIBITOR, REDUCE VENTILATOR-INDUCED LUNG INJURYE Piacentini², J Lopez-Aguilar¹, C García¹, A Villagrà¹, G Murias¹, P Fernandez-Segoviano³, JR Hotchkiss⁴, LI Blanch¹¹ Hospital de Sabadell, IU-FPT. Universitat Autònoma Barcelona. Spain; ² Hospital Mútua de Terrassa. Terrassa. Spain; ³ Hospital Universitario de Getafe, Madrid, Spain; ⁴ University of Pittsburgh, Pittsburgh, PA. USA

Background: High airway pressure ventilation can trigger lung inflammatory response and induce lung injury. Treatment with curcumin, a nuclear factor kappa beta inhibitor, can reduce pro-inflammatory response and attenuate lung injury.

Objective: To evaluate the effect of curcumin in the development of ventilator-induced lung injury.

Methods: 24 Wistar rats were randomized into three groups: Control; animals were ventilated with 8ml/kg tidal volume, PEEP = 2 cmH₂O and FiO₂ = 100%. Lesion; animals were ventilated with 24 ml/kg tidal volume, PEEP = 0 cmH₂O and FiO₂ = 100%. Curcumin; animals were ventilated with the same pattern but received 10mg/kg of curcumin in a single dose. Pressure volume curve and gas exchange were measured at baseline and at the end of the mechanical ventilation period (3 hours) and plasma TNF- α , CINC-2, IL-1 β and IL-10 were measured at this time. Values were compared with ANOVA.

Results:

Groups	Decrease in lung compliance (%)	Decrease in PO ₂ /FiO ₂ (%)	TNF- α (% of control)	CINC-2 (% of control)	IL-1 β (% of control)	IL-10 (% of control)
Control	0 %	0%	100%	100%	100%	100%
Lesion	24 %*	16%*	135%*	220%*	140%*	30%*
Curcumin	7%	4%	70%*#	32%*#	30%*#	180%*#

* p < 0.05 vs Control

P < 0.05 vs Lesion

Conclusion: Under these experimental conditions, curcumin inhibits pro-inflammatory cytokines expression, promotes anti-inflammatory cytokine expression and reduce ventilator-induced lung injury.

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0177 ORTHOTROPIC LIVER TRANSPLANTATION (OLT) IN CHILDREN WITH ACUTE LIVER FAILUREJ Cordero², R Dalmazzo¹, J Valenzuela¹, C Valverde¹, N Hernandez¹, C Acuña¹, L Acuña¹, S Soto¹, S Cassis¹, F Bobenrieth², B Hunter¹, R Tejjas², C Hinspeter², M Uribe¹, M Ferrario², J Godoy¹, G Gonzalez¹, F Berwart¹, L Calabran¹, M Fredes¹, C Herzog², M Santander², C Nachar², E Buckel²¹ Hospital Luis Calvo Mackenna, Santiago, Chile; ² Clínica Las Condes, Santiago, Chile

Background: The acute liver failure (ALF) is a severe disease with a mortality rate as high as 60 to 85% even with supportive care. Hepatitis A is endemic in our country (incidence: 70.1x100000 inhabitants, 75% in pediatric patients) and is the most common indication for orthotopic liver transplantation (OLT) in ALF, probably due to the absence of a national vaccination program for hepatitis A. The intensive care management in the liver transplantation remains a crucial issue in the successful outcome of this therapy.

Objectives: To present the experience of orthotopic liver transplantation in ALF in children in two hospitals.

Methods: All children referred with a diagnosis of ALF since January 1994 to June 2004 were retrospectively studied. The etiological study included: viral markers, autoimmunity, drugs and Wilson disease study. King's College Hospital criteria were used for liver transplant.

Results: During the 10 and half years of the study period, 45 patients were referred. Of these, thirty were transplanted, with ages between 1-13 years (median 5 years), 18 male and 12 female. The etiologies were hepatitis A virus in 7 cases (23.3%), drugs in 2 (6.7%), autoimmune in 1, metabolic in 1 and unknown in 19 (63.3%). The average weight was 30, 7 kg (10-52 kg). Graft came from cadaveric donors in 19 patients (6 complete liver, 10 reduced, 2 split livers, and one auxiliary liver) and from living donors in 11 patients (2 were right liver lobe). One patient was transplanted with ABO incompatible liver with success. Five patients were retransplanted (16.6%), four of them for primary dysfunction of the graft and one due to biliary duct stenosis. The actuarial survival of the liver transplant for ALF at 1 and 5 years is 80.6% and 71.7% respectively, 80% and 70% for live donors and 84.4% and 72.4% for cadaveric donors. The mean follow up was 42 months (range 2 to 122 months). Nine patients died, 3 due to sepsis, 1 due to multiple organ dysfunction syndrome (MODS), 1 because of primary dysfunction of the graft, 1 due to intracerebral hemorrhage, 1 because of intracranial hypertension and 2 patients due to cardiopulmonary arrest during surgery. Fifteen patients did not receive a liver transplant. Of them, 10 patients died waiting for the transplant, (8 due to severe neurological damage and 2 due to MODS), 1 wasn't activated because of brain death upon arrival and 4 patients recovered (2 spontaneously and 2 autoimmune hepatitis with medical treatment).

Conclusions: Liver transplantation has become an increasingly successful therapy in children with ALF, being the actuarial survival of 80.6% at 1 year and 71.7% at 5 years. Living-related donor transplant has decreased the mortality associated with delay. Ten patients died in the waiting list before receiving a liver transplant. Our country has developed a national system for organ procurement and allocation, but there still is a scarcity of liver grafts for patients with ALF. A national immunization program should be considered to decrease the incidence of hepatitis A.

0178 CONTRIBUTIONS OF VASCULAR FLOW AND PULMONARY CAPILLARY PRESSURE TO THE DEVELOPMENT OF VENTILATOR-INDUCED LUNG INJURYE Piacentini², J Lopez-Aguilar¹, A Villagrà¹, G Murias¹, S Paschetto¹, A Saenz-Valiente¹, P Fernandez-Segoviano³, JR Hotchkiss⁴, LI Blanch¹¹ Hospital de Sabadell, IU-FPT. Universitat Autònoma Barcelona. Mutua Sabadellena, Fundació Privada; ² Hospital Mútua de Terrassa. Terrassa. Spain; ³ Hospital Universitario de Getafe, Madrid, Spain; ⁴ University of Pittsburgh, Pittsburgh, PA. USA

Background: The magnitude of vascular flow contribution to ventilator-induced lung injury (VILI) is unknown. Our hypothesis was that high vascular flow contributes to VILI development independently of pulmonary capillary pressure level.

Objective: To evaluate the contribution of vascular flow into development of VILI

Methods: 32 sets of isolated rabbit lungs were allocated into four groups: Low flow/low pulmonary capillary pressure (LFLP); high flow/high pulmonary capillary pressure (HFHP); high flow/ low pulmonary capillary pressure (HFLP) and low flow/high pulmonary capillary pressure (LFHP). All lungs were ventilated with peak airway pressure of 30 cmH₂O and positive end-expiratory pressure of 5 cmH₂O during 30 minutes and flow across the pulmonary artery pressure vent was continuously recorded. The effective flow across the lung was calculated as: Pump flow – flow across the pulmonary vent. Weight gain during mechanical ventilation, changes in lung static compliance and in pulmonary vascular resistance (PVR), and extent of hemorrhage (scored by histology) were compared with ANOVA. Data are expressed as mean \pm SD.

Results:

Groups	Weight gain (g/g lung tissue)	D lung compliancel% decrease)	D PVR(dyne.sec.cm-5)	Hemorrhage score (0-10)
LFLP (n=8)	0.04 \pm 0.11	27 \pm 17	41 \pm 41	1 \pm 1.3
HFHP (n=8)	5.07 \pm 4.60*	76 \pm 9*	147 \pm 76*	6.8 \pm 1.7*
HFLP (n=8)	4.26 \pm 2.37*	89 \pm 11*	118 \pm 60*	7.6 \pm 1.3*
LFHP (n=8)	0.49 \pm 0.46	52 \pm 29	4 \pm 51	2.6 \pm 1.2

p < 0.05 vs LFLP

Conclusions: Under these experimental conditions, high perfusate flow contributes to VILI development with increased edema and alveolar hemorrhage. The effects of vascular flow were independent of the level of pulmonary capillary pressure.

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0179 GRADED PROTECTIVE EFFECTS OF PEEP IN TWO EXPERIMENTAL MODELS OF VENTILATOR-INDUCED LUNG INJURY IN ISOLATED RABBIT LUNGS

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BACKGROUND: High vascular flow can increase lung damage in a ventilator-induced lung injury (VILI) model. Positive end-expiratory pressure (PEEP) might attenuate lung damage but its influence on the "vascular site" of VILI remains poorly understood. We hypothesized that PEEP might protect the lung by decreasing trans-alveolar-capillary pressure gradient during graded VILI: low and high vascular flow with or without added oleic acid (OA) in the perfusate solution.

OBJETIVE: To evaluate the effect of PEEP in the development of graded VILI.

METHODS: Two series of experiments were performed. First, 15 sets of isolated rabbit lungs were randomized into 3 groups (n=5): low vascular flow/low PEEP (LFLP); high vascular flow/low PEEP (HFLLP), and high vascular flow/high PEEP (HFHP). Second, the same protocol was applied in another 15 sets of isolated rabbit lungs with 0.1 ml of OA added to the perfusate solution. All lungs were ventilated with peak airway pressure of 30 cmH2O during 30 minutes. Weight gain, changes in flow across lungs and in pulmonary vascular resistance, and extent of hemorrhage (scored by histology) were compared with ANOVA. Data are expressed as mean±SD.

RESULTS:

	without oleic acid	without oleic acid	with oleic acid	with oleic acid
Groups	Weight gain (g/g lung tissue)	Hemorrhage score(0 to 10)	Weight gain (g/g lung tissue)	Hemorrhage score(0 to 10)
LFLP	0.00 ± 0.00	1 ± 1.2	0.3 ± 0.1	3 ± 1.2
HFLLP	7.48 ± 4.18*#	7 ± 0.8*#	4.7 ± 3.6*	6 ± 1.6*
HFHP	0.43 ± 0.56	3 ± 2.1	4.0 ± 2.2*	6 ± 1.5*

*p< 0.05 versus LFLP ; #p< 0.05 versus HFHP

CONCLUSIONS: Under these experimental conditions, PEEP attenuates lung injury in high vascular flow-induced VILI. The protective effect of PEEP is lost in second-hit preconditioned lungs that result in a more severe lung insult.

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0180 THE CHRONICALLY CRITICALLY ILL PATIENTS: A UNIQUE CLINICAL PROFILE

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Background: A growing population of patients (5-10%) survive acute critical illness only to become chronically critically ill (CCI), with profound weakness and ongoing respiratory failure. Despite prolonged and resource-intensive care, recovery is slow, with high rates of early mortality or extreme functional dependence. Our goal was to describe the epidemiological features and outcomes of this poorly-characterized subgroup of ICU patients.

Methods: All patients that had a tracheostomy placed for continued ventilation (Carson S, Crit Care Clin, 2002) admitted between 1/8/01-1/11/04 to our mixed, university-affiliated hospital ICU were considered as CCI. On admission, epidemiological features, diagnosis, acuity (APACHE II, SAPS II and TISS), predicted mortality, and multiorgan failure (MODS) scores at 24 hours (SOFA24hours) and comorbidities (McCabe score) were recorded. Daily, presence of shock, ARDS, critical illness polyneuropathy and myopathy (CIPNM), use of mechanical ventilation (MV) and haemodialysis were assessed. MV, ICU and hospital stay durations (LOSICU; LOSHospital) were registered. Results are expressed as mean ± SD; or median [IQR range]. Main outcome measure was hospital mortality..

Results: 596 patients were admitted to the ICU within the study period. Eighty-two patients (13.6%) were considered CCI, with the following characteristics: Age 43±15; 54% male; APACHE II 21±7 and SAPS II 39±14, with 41% and 40% of expected mortality. TISS score was 32±9, and SOFA was 7±3. 17% had pre-existent illness (McCabe 2+3). Observed mortality was 34%. Admissions were 51% medical, 38% emergency surgery, and 11% elective surgery; 26% of patients were transferred from other hospitals, 52% from the emergency room and 21% from hospital wards. Causes of initiation of MV were 31% respiratory, 28% neurological, 21.7% hemodynamic and 20% postoperative. On admission, ARDS and shock were present in 42% and 53% of patients, and during ICU stay, in 61% and 70%, respectively. Septic shock was prevalent in the 54/56 episodes of shock recorded during CCI patients' evolution; 21 patients had more than 1 episode. CIPNM was diagnosed in 17% of patients. 6% of patients required haemodialysis. MODS occurred in 73% of patients. Time to tracheostomy was 17±7 days. Duration of MV was 33 [24-50] days; LOSICU and LOSHospital were 39 [30-54] and 56 [39-82] days, respectively. Hospital mortality was 33%.

Conclusions: CCI patients are a distinct, acutely and severely ill population in which MODS, shock and ARDS are extremely frequent events since their very admission, and who suffer recurrent episodes of septic shock and ARDS in their evolution. Medical causes of ICU admission and respiratory causes of initiation of MV clearly predominate in this CCI population. Hospital mortality is high, but lower than predicted according to usual scores, which reinforces their bad performance in patients with a prolonged ICU stay.

0181 LIVER TRANSPLANTATION IN CHILDREN. TEN YEARS OF EXPERIENCE

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Background: Liver transplantation is a definitive therapy for patients with acute and chronic end stage liver disease. A liver transplantation program that includes adults and pediatric patients was started in 1993 in two hospitals in our country.

Objectives: To present the experience of the pediatric orthotopic liver transplantation (OLT) program during a ten year period.

Methods: All the pediatric patients with OLT done since January 1993 to June 2004 were retrospectively studied. Overall survival, early mortality, indications, surgical techniques, medical and surgical complications were analyzed.

Results: 132 OLT were done in 107 children. The mean age was 5 years with a median of 4 years (range 8 months -15 years). The mayor indications were bile duct atresia in 43.1% and acute liver failure (ALF) in 20.4%. Complete cadaveric graft was used in 59 cases, reduced liver in 39, split liver in 1 case and auxiliary liver in 1 case. Living related donor was used in 32 cases (24, 3 %), 30 of them with segments II and III and 2 with the right liver lobe. The arterial reconstruction was done end-to-end in 102 cases, using aortic bridges and grafts in 30 cases. In 116 cases the biliary reconstruction was made with Roux-in-Y anastomosis. The immunosupresión was started with a triassociated therapy with cyclosporine, steroids and azathioprine. Shift to tacrolimus was considered according to clinical evolution. Sixty six patients presented rejection, all with histological confirmation and treated with steroids boluses or polyclonal antibodies. Other medical complications were present in 46.2% of cases, mainly in the first months post-transplant, being opportunistic bacterial infections the most frequent (42.9%). Four patients developed post transplant lympho proliferative disease. The main surgical complication was the leak of the biliary anastomosis or of the transection edge in reduced livers (21.4%), and vascular complications were present in 10.6%. Twenty-seven patients died, 22 during the first year of the OLT (20 in the first 3 months), 4 in the second year and 1 after the third year. The main cause of death was graft failure in 9 and multiple organ dysfunction syndrome in 9 patients. Two died during surgery. The actuarial survival is 81.2 % at the first year and 72% at 5 years. In the last three years the actuarial survival was 87.1% and 75.8% at 1 and 3 years respectively (p= NS). The actuarial survival in the cases of ALF is 80.6% in the first year and 71.7% at 5 years.

Conclusion: The main indication for OLT was bile atresia and ALF. Live donors were used in 24.3 % (2 cases with right lobe). Rejection, opportunistic bacterial infections and leak of biliary anastomosis and transection edge were the main complications. Seventy four % of deaths occurred in the first three months after OLT, mainly related to graft failure and sepsis. A multidisciplinary team with pediatric intensivists and transplant surgeons with strict protocols allowed us to have an actuarial survival of 87.1 % and 75.8% at 1 and 3 years after OLT.

0182 THE USE OF RESPIRATORY PHYSIOLOGY KNOWLEDGE IN CRITICAL CARE NURSES' CLINICAL DECISION-MAKING

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The knowledge and experience of expert nurses has long been recognised as contributing to early identification of patient problems, early intervention and an improved patient outcome. The present study sought to answer the research question, following completion of a critical care specialty practice programme, do nurses use knowledge of respiratory physiology in their clinical decision-making? An evaluation methodology using a managerial perspective was used to compare the use of knowledge of respiratory physiology in critical care nurses' clinical decision-making with the respiratory physiology recommended in the New Zealand Standards for Critical Care Nursing Education (Critical Care Nurses' Section, 2000). Prior to the implementation of this research, ethical approval was obtained from both the university and regional ethics committees, and written approval gained from the participants, critical care unit managers of each research site, the Regional Maori Research Review Committee and the Regional Development Office of the appropriate District Health Board. Confidentiality and anonymity of the participants and critical care units involved in this study were maintained throughout the research process.

Using intensity sampling, 27 nurses who had completed a critical care specialty practice programme and who were currently working in the critical care units of two tertiary hospitals in a large metropolitan city within New Zealand were selected. Quantitative and qualitative methods were used to collect data. Data analysis was completed using descriptive statistics, correlations and identification of common terms and themes.

The results showed that following completion of a critical care programme, critical care nurses demonstrated a low to medium level of knowledge of respiratory physiology in their clinical decision-making. In the total group, no statistically significant associations were found between the use of knowledge of respiratory physiology in clinical decision-making and age, experience, academic level, use of guidelines and protocols, standards and integrated care pathways, conference attendance, reading of journals and accessing the World Wide Web for literature. Qualitative analysis identified factors contributing to the low to medium use of knowledge as being nurses' high reliance on intuitive knowledge, lack of in-depth discussion of respiratory concepts in critical care programmes, lack of opportunity in the clinical practice environment to discuss respiratory physiology and lack of collaborative practice.

The study identified the need for more collaborative practice and for clinical nurse educators firstly, to have a closer relationship with the critical care programme providers to ensure adequate theoretical content and secondly, to work with nurses in the clinical setting.

Reference

Critical Care Nurses' Section. (2000). New Zealand standards for critical care nursing (2nd ed.). Wellington: New Zealand Nurses' Organization

0183 METABOLIC ACID BASE STATUS OF CRITICALLY ILL SEPTIC PATIENTS: A QUANTITATIVE LONGITUDINAL STUDYDT Noritomi¹, SB Cappi¹, AB Libório², AC Nogueira¹, WY Hoshino¹, LC Inaba¹, FG Soriano¹, M Park²¹ Hospital Universitário - University of São Paulo - São Paulo - Brazil; ² Hospital das Clínicas de São Paulo - University of São Paulo - São Paulo - Brazil

Background: Septic patients frequently present with severe acid base alterations and its nature is not completely elucidated. The use of Stewart's approach may bring new light to this field.

Objectives: The aim of this study is to understand the nature of acid-base disturbance of early phase septic patients. Specifically, we have proposed to identify the components of strong ion difference (SID) that account for its variation in this clinical scenario.

Methods: This study took place in a mixed 14-bed ICU of a university hospital. Patients who had severe sepsis with recently diagnosed (<24h) organ dysfunction were considered eligible for the study. We prospectively collected plasma Na⁺, K⁺, Cl⁻, ionic Ca²⁺, Mg²⁺, lactate, phosphate, albumin, arterial pH and pCO₂ for 5 consecutive days. Standard base excess (SBE) was calculated according to Van-Slyke equation. SID effective (SIDe), SID apparent (SIDa) and strong ion gap (SIG) values were calculated using a computer program. Pearson correlation index was used and p<0,05 was considered statistically significant.

Results: From September 2004 to December 2004, 20 patients were enrolled. The observed SIDe value for a neutral SBE was 33.4, lower than the "normal" SID (approximately = 40) due to the low albumin serum level seen on our patients (2,34±0,48 g/dl). Median SBE value increased from -6,56 (-16,05 to -0,27) on the first day to -3,15 (-14,71 to 6,93) on the 5th day of observation. This increase was strongly correlated with median SIDa daily level (R²=0,84) that increased from 33,41 (coincident with the observed "neutral" SIDe value) to 35,16. However, the median daily SBE did not show good correlation with SIG levels which was kept almost constant during the study period (4,9±2,7).

On the 5th study day, metabolic acidosis had disappeared in 11 (55%) patients but persisted in 9 (45%) of them. This was strongly dependent on their final SIDa value (R²=0,90) and specifically on the serum Cl level (R²=0,66).

Conclusion: During the first days of severe sepsis a moderate-degree metabolic acidosis is caused by unmeasured anions. SID apparent value can be considered neutral on the first day and becomes more positive during the next few days. This could be the first compensatory mechanisms for restoration of a normal metabolic acid base status.

0185 PERCEPTION OF PAIN IN ONCOLOGIC AND NO ONCOLOGIC CHILDREN. A NURSING VIEWFSV Tourinho-Pereira¹, MC Azzi², MFB Oliveira², T Ruzza², FA Pereira³¹ Methodist University of Piracicaba - São Paulo - Brazil; ² São Francisco University - Bragança Paulista - São Paulo -Brazil; ³ MEDICAL Hospital - Limeira - São Paulo - Brazil

Introduction: In the last times, several advances in the treatment of the infantile cancer had occurred, and cure rates reached 70% of the cases. To evaluate the pain of these children, face diagrams are used among others instruments. However, one of the great imperfections in the treatment of pain is the lack of professional preparation. The idea of this work was born of the necessity in identifying how the nurse performance could be improved in the context of pain in pediatrics.

Objective: The objective of this study was to identify the perception of pain of children with cancer and compare with children who do not have cancer and verify what is pain for them.

Methods: In this qualitative, descriptive study, three children treating cancer and 6 children without cancer had participated. The methodology used a theater, with the participation of the researchers and children as actors. These dressed up as forest animals according to the scene and questions had been carried through, making possible the understanding of pain.

Results: Characterizing and quantifying pain, it was possible to understand that pain for child exceeds the physicist, include the emotional and spiritual suffering, conducting itself for a series of feelings.

Conclusion: The nursing team must pay more attention in pain information provided by child and its family, learning to hear and believe more when child complains about pain. This attitude makes the professional capable to see pain as the children see, promoting an quality and humanity assistance, for the child and family, being possible to have cancer without having pain.

0186 HIGH FLUX EXTENDED DIALYSIS (HFED) IN ACUTE RENAL FAILURE (ARF) IN THE INTENSIVE CARE UNIT (ICU)

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Background:

Renal replacement therapy for the patient with ARF in ICU can be offered in several different formats: intermittent hemodialysis(IHD), continuous renal replacement therapy (CRRT), and hybrid therapies. There is also no evidence that CRRT results in a better survival, compared with IHD. The only potential advantages of CRRT that stood the test of clinical evaluation(hemodynamic stability, correction of hypervolemia, better solute removal) can be offered as well by hybrid therapies.

Objective:

We present a single center experience with a hybrid therapy named high flux extended daily dialysis (HFEDD).

Methods:

All patients with acute renal failure in ICU and hemodynamic instability with renal replacement therapy requirement were considered for HFEDD. Illness severity was determined for each patient by APACHE II, ISI and SOFA Scores.

HFEDD was performed using the Fresenius 4008 B delivery sytem, standard blood tubing and polisulfone dialysis membrane (Fresenius Fx 60)and portable reverse osmosis. The patients were dialyzed with a prescribed blood flow rate of 200 ml/min and dialysate flow rate of 300 ml/min. The rate of ultrafiltration and the arterial pressure of patients were registered.

Results:

From 01/05/04 to 31/12/04, 97 treatments were performed in 24 critically ill patients. (7 females, 17 males, mean age 62 years (35-81)). The acute renal failure was oliguric in 70% of patients. The overall mean HFEDD treatment duration was 8 hours. The overall prescribed Kt/Ve was 1.2. The goal of ultrafiltration and the hemodynamic stability were obtained in 95% of treatments. Observed hospital mortality was not significantly different from the expected mortality as determined from the APACHE II and ISI scores.

Conclusions:

HFEDD is an alternative to traditional continuous renal replacement therapies for critically ill patients, although prospective studies directly comparing two modalities are required to define the exact role of HFEDD.

0187 WEANING FROM PRESSURE SUPPORT VENTILATION ON NEUROSURGICAL TREATMENT PATIENTS

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Backgrounds: Pressure Suport Ventilation (PSV) is defined as partial ventilatory suport helping spontaneous ventilation of patient by predetermined and constant positive pressure during inspiration phase. The weaning of neurosurgical patients is difficult, because they remain for a long period in mechanical ventilation (MV). The presence of respiratory physiotherapists during weaning process is fundamental. The weaning only ends when patient is extubated or isolated from MV and continuous oxygen nebulization (O2 nebz) is instituted in thracheostomies cases. Understanding the factors that shows the success and failure of weaning is necessary.

Objectives: Primary: check the efficiency and benefits of PSV on neurosurgical patients; secondary: evaluate the time of permanence on PSV during weaning process.

Methods: Prospective study in intubated and thracheostomized patients under MV weaning process on PSV modality. Schafts of the patients ventilated in PSV were analysed and ventilatory parameters as respiratory frequency, spontaneous current volume (SCV), positive end expiratory pressure (PEEP), Fraction inspired Oxigenation (FiO2), Pressure Suport (PS), arterial gasometry, vital signals (Arterial Pressure(AP),Cardiac Frequency(CF), saturation partial oxigenation(SpO2), respiratory frequency(RF) and PO2/FiO2 ratio during all the weaning period until extubation or tube T O2nebz process (thracheostomized patients) were verified. The inclusion criteria was clinical and hemodynamic stability, Glasgow Scale > 8 points, no pulmonary hipersecretion and no neuromuscular patologies, PO2/FiO2 > 300 points, SCV > 5 ml/kg. More than two failures on weaning process, pulmonary hipersecretion, hemodynamic and clinical instability were exclusion criteria.

Results: 26 patients, both sex (17 Men and 9 Women) and mean age of 41.0 (37,29 M and 50,44 W), submitted to neurosurgical procedures and weaning process on PSV modality, in which mean value for weaning was PS= 11.6 cmH2O. The mean values of the time for permanency in PSV was 2.5 days during all the weaning process and the time-variables (days) of PSV versus oxigenation index was 2.11 (p < 0.05). R PO2/FiO2 was 370,8 points resulting arterial oxigenation parameters of PaCO2 mean was 31.0 mmHg, while PaO2 was 169.33 mmHg and pH=7.44. SCV mean was 573.07 ml and spontaneous RF was 20,1 bpm.

Conclusion: Patients had good results on PSV weaning and there was not failure in any of the 26 patients during all the weaning process. The permanence period was low.

0189 ORGAN DONATION: IDENTIFYING OPPORTUNITIES FOR INTERVENTION

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Background: Transplantation has become the chosen therapy for patient with organ failure. However, the low rate of consent by families of donor-eligible patients is a major limiting factor in the success of organ transplantation. In Brazil the organ supply does not correspond to the increasing demand, even if there is a sufficient number of potential donors.

Objective: Identify the main reasons of consent refusal for organ donation.

Methods: Cross-sectional study, with people aged 20 yr or older in the urban area of Pelotas, Rio Grande do Sul state, Brazil. The instrument used was a structured questionnaire, filled out in individual interviews. Chi-squared and linear trend test were used in the bivariate analysis. Multivariate analysis was conducted according to a hierarchical classification model using Poisson regression. The study was approved by the commission of Ethics and Research of Federal University of Pelotas and the individual data secrecy was maintained.

Results: Among 3159 participants, 48% were unwilling to donate their organs after death. In the adjusted analysis age, education and social level remained associated to unwillingness to organ donation. The main reason to refuse organ donation was "fear of not being dead". Other prevalent reasons mentioned were "organ mutilation" and "lack of confidence in the health system".

Conclusions: The study suggests that people do not donate their organs because they are afraid of not being dead during the donation. This demonstrates that people do not know the dead donor rule and the transplant program. So, if the life-threatening and critical shortage of cadaveric donor were appropriately understood by the public, an altruistic response would lead to increase donation. Therefore, educational programs teaching about organ donation program and campaigns emphasizing the program's seriousness transmitting trust to people should be implanted in order to increase donation index.

0190

PROSPECTIVE STUDY OF 30 DEGREES AND 60 DEGREES POSITIONING DURING EXTUBATION PROCEDURES ON HISCMSIP INPATIENTS

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Backgrounds: The ventilatory and perfusion distribution, depend directly of gravitational action, where patients on elevated positions are favored. Knowing the benefits of the adequate positioning, we have noted that this could lead to a better gas distribution through the different lung areas, there is a doubt if the benefit of one position is better than the other.

Objectives: Correlate the 30 degrees and 60 degrees positioning during extubation on patients in ventilatory weaning process and their vital essential alterations.

Methods: Patients with orotracheal intubation in ventilatory weaning process with the following parameters were included: Pressure Support Ventilation (PSV) modality, pressure Support (PS) < 10 cmH₂O, positive end expiratory pressure (PEEP)= 5 cmH₂O, FIO₂ < 40%, SB=2, respiratory frequency (RF) < 35 bpm, spontaneous current volume (SCV) > 4 ml/kg, PaO₂/ FIO₂ratio > 200, Lung Injury Score (LIS) < 1.5, Glasgow scale > 8 points and hemodynamic and clinical stability, both sex and > 18 years old. After the randomization of the 30 degrees and 60 degrees positioning for the extubation process were evaluated: arterial gasometry, cardiac frequency (CF),saturation partial oxygenation(SpO₂), during pre and post-extubation phases (the positioning were maintained for at least two hours). Non invasive mechanical ventilation (NIMV) used as back up. After 48 hours without intercurrance, it was defined success.

Results: 177 patients, randomized into 2 groups: G1 (30 degrees) with 89 patients and mean age of 48 years; G2 (60 degrees) with 88 patients with mean age of 48.7 years. The success rate was higher in G1 (82%) – G2(79%), going against the expectative of the better lung mechanical function and gas distribution during 60 degrees positioning, but still maintaining above literature mean of 20% as referred by several authors. No statistical significant difference was found in relation to arterial gasometry and vital signals.

Conclusion: The G1 showed more success because of the lower intubation days (4.9) that G2 (8.5). There is no difference between the groups, with a low percentage of failure in both groups.

0191

DO PEOPLE ACCEPT BRAIN DEATH AS DEATH?

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Background: Although "brain death" has been clinically and legally accepted, in Brazil and other countries, as death criterion, there is little data about public attitudes and beliefs concerning these matters. In addition, people's understanding of brain death may be a factor that contributes to decisions regarding organ donation.

Objectives: To examine people's understanding of brain death and how the term "brain death" affects individuals' decisions about organ donation.

Methods: Cross-sectional study, with people aged 20 yr or older in the urban area of Pelotas, Rio Grande do Sul State, Brazil. The instrument used was a structured questionnaire, filled out in individual interviews. Chi-squared and linear trend test were used in the bivariate analysis. Multivariate analysis was conducted according to a hierarchical classification model using Poisson regression. The study was approved by the commission of Ethics and Research of Federal University of Pelotas and the individual data secrecy was maintained.

Results: Among 3159 participants, the prevalence of willingness to donate organs after death was 52%, amongst which 58% had expressed such willingness to a relative. Most responders (80.1%) would authorize the donation of a relative's organs after death if they had previously declared their willingness to do so. However, when the words "brain death" were used as death, only 63% would authorize it. When the subject was not discussed previously, only a third of the total number of individuals interviewed would authorize the donation of a relative's organ.

Conclusions: According to the literature, many individuals do not authorize the donation of a relative's organs because they did neither understand, nor accept brain death as death criterion. In the present study, when the term "death" was substituted by "brain death" the willingness to donate fell by 20%, suggesting that some individuals do not understand or do not accept the brain death. Therefore, it is very important for medical and nursing personnel, directly responsible for care of a critically patient, to receive knowledge on brain death to be able to provide specific orientation when it is required. Permanent education should be the way to dissipate social fears and distrust towards organ donation and brain death.

0192

ROUTINE REPLACEMENT OF INTRAVENOUS FLUID BAGS DOES NOT PREVENT MICROBIAL COLONIZATION: CONTROLLED COHORT STUDY

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Background: Health Care Acquired Infection (HCAI) occurs in 6-12% of inpatients causing suffering, risk of death and costs [1]. Many HCAIs occur in intravenous catheters. A historical preventative strategy is replacement of intravenous infusion systems at routine intervals. Research suggests tubing and burettes may be used for ≥7 days, however, the effect of fluid bag use duration is unknown, and daily replacement continues in many hospitals. [2] The CDC Guidelines state recommendations for length of use cannot be given due to lack of evidence.[3]

Objectives: Determine intravenous fluid bag microbial colonisation rates after ≥24 hours use. Document current clinical length of use for fluid bags. Investigate any time-dependant relationship to colonisation. Develop recommendations for the duration of intravenous fluid bag use.

Methods: Controlled cohort study in a 10-bed critical care unit and 257-bed regional referral hospital. After ethical approval, samples were collected using aseptic technique from 264 fluid bags used ≥24 hours with peripheral, central venous or peripheral arterial lines. A control group of 261 never-opened fluid bags were also sampled. Fluids included saline and dextrose based crystalloids. Samples were cultured for 48 hours on blood; microbiological colony counts and speciation were recorded. Laboratory staff were blinded. Data on potential risk factors was recorded including patient age, use of a burette, fluid type and intermittent disconnection of the intravenous tubing.

Results: Patient-related fluid bags were used for a median of 34 hours (SD 1.8, range 21-185 hours/1-7 days). Colonisation occurred in patient-related samples (2.7%) and controls (6.9%) (p=0.02). Organisms in both groups were mainly dnase and coagulase negative staphylococcus at low counts. Median duration of bag use was not different (p=0.99) between colonised (35.0 hours) and sterile patient-related samples (34.0 hours).

Conclusions: Colonised samples in both groups likely represent sampling contamination rather than fluid bag colonisation. Our results suggest intravenous fluid bags are not colonised after 24 hours of clinical use and there is no benefit in routine replacement. The risk of contamination when disconnecting the bag for routine replacement may be higher than the chance of removing a colonised bag. Approximately 500 million intravenous catheters are used annually. The results have implications for infection control, nursing time, equipment costs and environmental waste.

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0193 THE EFFECTIVENESS OF AN INTERVENTION TO INCREASE PUBLICATION RATES BY HEALTH PROFESSIONAL ACADEMICS: RESULTS OF PROSPECTIVE COHORT STUDY

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Background: Health professionals are under increasing pressure to publish in the refereed literature. Despite this, many do not publish, and much research goes unreported.
Objectives: To evaluate the effectiveness of an intervention to increase publication rates of health professionals
Methods: Participants were academic health professionals from fields including intensive care, emergency and nursing. An anonymous, self-report, web-based survey with a mix of short-answer and open-ended questions was used. 10 attendees at a one-week consultant-led writing course, followed by ongoing monthly peer-support meetings were invited to participate. 2 years of data pre and post the writing course was obtained on publication rates and types, reasons for attendance and best and worst aspects. Quantitative and qualitative analysis occurred.
Results: Most participants had no publication experience before the writing course. Afterwards, most published at least once. Overall publication rates increased four-fold. This resulted in average publication rates per person of 2 refereed articles per year as first or co-author. Other reported benefits were support and motivation from the peer-group, team-building, increased collaborative writing and researching, plus improved confidence in writing ability. Excessive workloads were the most highly cited impeding factor.
Conclusions: Writing for publication is a skill that can be learned. The evaluated model of a formal writing course, followed by informal monthly meetings, is an effective way of increasing publication rates.

0194 VENTILATOR ASSOCIATED PNEUMONIA CAUSED BY MULTIDRUG-RESISTANT PSEUDOMONAS AERUGINOSA AND ACINETOBACTER SP: TREATMENT WITH COLISTIN

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Background: ventilator associated pneumonia (VAP) is the most frequent infection in the intensive care unit (ICU) and has a high rate of mortality.
Mortality rises furthermore when VAP is produced by Pseudomonas aeruginosa and Acinetobacter sp. especially if the strains exhibit a multidrug-resistance pattern.
Objectives: To describe the experience of the ICU of the Muñiz Hospital in the treatment of VAP with Colistin.
Methods: We analyzed retrospectively 31 clinical charts of patients with VAP that were treated with colistin between years 2002-2003 and that have respiratory cultures for multidrug-resistant Pseudomonas aeruginosa or Acinetobacter sp. only susceptible to this antibiotic.
Results: The more frequent causes of admission to the ICU were tetanus (32%) and bacterial meningitis (23%). 83% percent of the patients had an APACHE II score at admission > 8. 90% of VAP were of the late-onset type. 57% of VAP were caused by Acinetobacter sp. and 43% by Pseudomonas aeruginosa.
58% of patients received colistin intravenous and aerosolized, 42% only intravenous colistin.
There were only two relapses (Pseudomonas aeruginosa susceptible to Colistin) and five superinfections (1 with methicillin-resistant Staphylococcus aureus, 2 with Stenotrophomonas maltophilia, 1 with Pseudomonas aeruginosa susceptible to Colistin, 1 with Acinetobacter sp. susceptible to Colistin).
58% of the patients had good evolution and were discharged. Mortality was 42%.
6 patients (19%) developed nephrotoxicity, reversible in most cases with the suspension of treatment, without the need of hemodialysis.
No adverse reactions was observed with the administration of inhaled colistin
Conclusions: Colistin is an effective option for the treatment of VAP caused by multidrug-resistant Pseudomonas aeruginosa and Acinetobacter sp. It has an acceptable security profile. The principal adverse effect is renal toxicity, generally reversible with the suspension of the antibiotic.

0197 ARE ALL METABOLIC ACIDOSIS IN SHOCKED CHILDREN PRESENTING TO THE PEDIATRIC INTENSIVE CARE UNIT EQUAL? DOES THE TYPE AND / OR MAGNITUDE MATTER?

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OBJECTIVES: To define the character, magnitude and its value in predicting outcome of metabolic acidosis in children presenting to the Paediatric Intensive Care Unit (PICU) with shock.

METHODS: A retrospective, observational folder review of children admitted with shock and metabolic acidosis to a PICU in Cape Town, South Africa. Blood was sampled on admission (standard practice) for arterial pH, pCO₂, standard bicarbonate (SB), base excess (BE), serum electrolytes, albumin, calcium, magnesium, phosphate, and lactate. Demographic data including age, weight, length of PICU stay (LOS), and observed mortality was noted. The PIM score, standardized mortality rate (SMR), and organ failure score (OSFS) were calculated, as were the following parameters: corrected chloride (cCl), anion gap (AG), corrected AG (cAG), and chloride/sodium (Cl/Na) ratio. The data is recorded as median and IQ range, and analysed using the Mann-Whitney U test. 231 children were screened. 114 children were excluded due to insufficient data (n= 93), no acidosis (n=10), missing clinical notes (n=9), and absence of shock (n=2).

RESULTS: Complete data was available on 117 children (58 boys and 59 girls). Their age was 5.5 (1.5-12.9) months, weight 5.4 (3.3-8.9) kg, LOS 4 (2-8) days. 50% (n=58) had a history of gastroenteritis. 85% (n=100) required mechanical ventilation; 77% (n=90) inotropic support, with 37% (n=43) receiving adrenaline. The median OSFS was 3 (2-4). 31% (n=36) had hepatic impairment with 11 (9%) requiring peritoneal dialysis. There was sepsis in 43% (n=51), with 31 (26%) having positive cultures. The observed mortality was 38% (n=45), with a mean predicted mortality using PIM of 37.2%. The SMR was 1.02 (95% CI 0.90-0.18). Admission data: Table.

The area under the mortality ROC curve (95% CI) for lactate, PIM, OSF score, Cl and Cl/Na respectively was 0.783 (0.697 - 0.868), 0.749 (0.658 - 0.841), 0.729 (0.636 - 0.821), 0.722 (0.627 - 0.816), and 0.705 (0.608 - 0.802) respectively. The likelihood ratio of mortality was 2 for a lactate of > 5mmol/l.

CONCLUSIONS: In children admitted to the PICU with shock and a metabolic acidosis the traditional markers of severity of metabolic acidosis (pH, BE, SB) showed no difference between survivors and non-survivors. However lactate levels appear to be a better predictor of mortality and morbidity, and are associated with longer LOS and increased need for ventilation and inotropes. Interestingly there was a significantly higher chloride level in survivors.

Parameter	All Data	Survivors	Non-Survivors	p-value
pH	7.16 (7.00 - 7.27)	7.18 (7.03 - 7.28)	7.14 (6.92 - 7.27)	0.19
SB (mmol/l)	11.2 (8.7 - 15)	11 (9 - 15.1)	11.7 (8.4 - 14.2)	0.94
BE (mmol/l)	-17 (-21 to -11.5)	-17.3 (-20.5 to -11.6)	-17 (-22 to -11.5)	0.77
Chloride (mmol/l)	109 (105-122)	115 (108-126)	106 (102-113)	<0.0001
Lactate (mmol/l)	5.8 (2.8-10.7)	3.6 (2.2-7.3)	10.4 (5.8-16)	0.0000
Albumin (g/l)	23 (18-29)	25 (20-30)	20 (16-25)	0.0004
cAG (mmol/l)	22 (18-28)	21(17-25)	27 (21-34)	<0.0001
Cl/Na	0.81 (0.78-0.85)	0.83 (0.79-0.86)	0.79 (0.75-0.82)	0.0001
cCl (mmol/l)	113 (110-119)	116 (110-121)	111 (105-115)	<0.0001

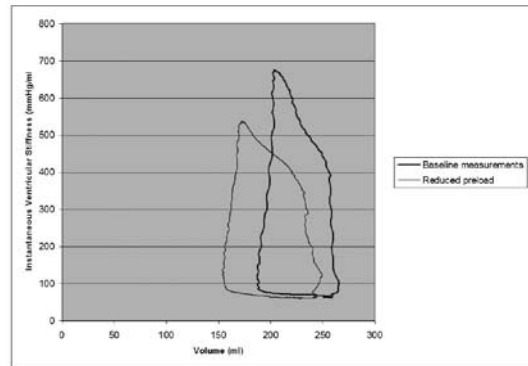
0198 **EXISTENCE OF A "DIASTOLIC" FRANK-STARLING MECHANISM IN HUMANS: A PRESSURE-VOLUME LOOP STUDY**K Yastrebov¹, C Royse², A Royse²¹ Tasmanian Institute of Critical Care and Mersey Hospital; ² The University of Melbourne and Royal Melbourne Hospital

Background/Objectives: The systolic Frank-Starling mechanism describes an increase in myocardial systolic force as a response to an increase in left ventricular end-diastolic volume. Recent advances in molecular physiology have identified a molecular spring theory where the end-diastolic stretch of titin is important in generation of the systolic Frank-Starling mechanism. Maximum compression of titin has been shown to produce a spring response in experiments on a molecular level, but has not been demonstrated in vivo. We postulated that this phenomenon could generate a "diastolic" Frank Starling mechanism in humans whereby relaxation is improved with reduced volume. A lower end-systolic volume is associated with shorter average lengths of sarcomeres within the ventricular myocardium. Enhanced compression of molecular titin during end-systole generates higher rebound force of the compressed molecular spring during diastole. Diastolic dysfunction is very common in critically ill patients, and the introduction of a diastolic Frank-Starling mechanism as a new physiological concept will allow improved understanding of diastolic function and management of dysfunction.

Methods: In 9 patients undergoing coronary artery bypass graft surgery, a 6F Millar combined pressure/conductance catheter was inserted via the right upper pulmonary vein to lie in long axis of the left ventricle, for pressure-volume loop acquisition. Simultaneous transthoracic echocardiography measurement of diastolic function was performed. Measurements were performed prior to cardiopulmonary bypass (baseline) and after rapid removal of blood from the aortic cannula to reduce preload (hypovolemia). The instantaneous pressure/volume index (stiffness) is proportional to the ventricular force. It was calculated from static pressure-volume loops, and used as a measurement of instantaneous ventricular stiffness, and plotted against volume to produce stiffness-volume loops.

Results: Hypovolemia resulted in reduced end-systolic and end-diastolic left ventricular pressure and volume. Importantly, instantaneous stiffness was reduced during the diastolic rapid filling stage compared with baseline measurements at equal diastolic volumes. Instantaneous stiffness continued to decline throughout diastole and to a greater degree than baseline values (Fig 1).

Conclusions: Reduced volume improves relaxation in patients with preserved diastolic function, indicating the existence of a diastolic Frank-Starling mechanism in humans, and is supportive of the molecular spring theory.

**0200** **MITOCHONDRIAL INJURY IN SEPSIS**F Soriano³, C Valeri¹, P Biseli¹, E Borges¹, J Barradas¹, V Reze¹, T Soares⁴, EG Caldini², PA Lotufo¹, M Bernik¹, K Sichiari¹, AC Nogueira¹¹ Hospital Universitário da Universidade de São Paulo; ² Anatomia Patológica da Universidade de São Paulo; ³ Disciplina de Emergências Clínicas da Universidade de São Paulo; ⁴ Associação Escola Graduada de São paulo

Background/Objectives: Sepsis-induced multiple organ failure is the major cause of mortality and morbidity in critically ill patients. However, the precise mechanisms by which this dysfunction is caused remain to be elucidated. It seems that in sepsis, mitochondria dysfunction results in raised tissue oxygen tensions and organ failure. Possibly due to oxide nitric, that is produced in excess in sepsis, and is known to inhibit mitochondrial respiration in vitro.

We conducted a study to analyze cellular damage to electronic microscopy and evaluated its possible relation with serum cardiac markers (Troponin, MB- creatin phosphate Kinase), and homodynamic data.

Methods: We selected all consecutive patients who met criteria for septic shock, and we collected blood samples from the first through the twelfth day, or until death. We also analyzed homodynamic parameters by pulmonary catheter. From the patients that died, a fragment of left ventricle was sent for electronic microscopy.

The exclusions criteria were previous coronary artery disease or dilated cardiomyopathy.

Results: We studied 22 patients, age 53 ± 4 years, APACHE scores 22 ± 2 ; Mortality was 45%.

The patients who died showed data of cardiac damage from the first day. It was shown by troponin ($0,54 \pm 0,08$ Vs. $1,7 \pm 0,3$ U/MI) and left ventricular systolic work index ($64,2 \pm 3,7$ Vs. $37,6 \pm 1,3$) respectively, in survivors and non-survivors group. The electronic microscopy from myocardial of non-survivors group showed a significant injury in mitochondrias, represented by an increased in its numbers. There was an alteration on organelles' organization and mitochondria crests' lesions. The histology of the heart demonstrated infiltrators inflammatory and increases of collagen fibers

Conclusions: The patients with septic shock that died developed a precocious mitochondrias injury showed by the electronic microscopy.

0201 **CONTINUOUS POSITIVE AIRWAY PRESSURE DECREASES PULMONARY HYPERINFLATION IN COPD PATIENTS**CRR Carvalho¹, SMTP Soares², RARA Oliveira², SM Rezende², D Dragosavac²¹ Respiratory ICU - University of Sao Paulo, FMUSP, Sao Paulo - Brazil; ² Intensive Care Unit, HC/FCM - State University of Campinas, UNICAMP, Sao Paulo - Brazil

Bilevel noninvasive ventilation improves ventilatory conditions of chronic obstructive pulmonary disease (COPD) patients. Flow limitation and dynamic hyperinflation are common findings in these patients. However few studies verified if the application of continuous positive airway pressure (CPAP) could improve pulmonary mechanics. Inspiratory capacity (IC) has been used to assess flow limitation in dynamic hyperinflation of obstructive subjects. Objective: To assess the effect of the CPAP in pulmonary hyperinflation in COPD patients. Method: Prospective study of 21 stable COPD patients (age 63 ± 9 years), with forced expiratory volume in first second (FEV1) of $40,7 \pm 11,7\%$, who were submitted to the gradual test of CPAP (4, 7 and 11 cmH₂O – Dräger - SAVINA ventilator), for 5 min. The IC was measured by spirometry, before and after each CPAP level. For each patient, a "best CPAP" level was defined as the one associated with the greater IC observed. This "best CPAP" level was then applied during 10 min and subsequent spirometry was performed. Results: During the gradual test of CPAP, 6 patients did not present any improvement of the IC. When the "best CPAP" was then applied in these cases, a significant worsening of the IC was observed: $83,7 \pm 19,4\%$ to $74 \pm 22,8\%$ ($p = 0,03$). In 15 patients, the IC increased significantly from $68,6 \pm 17,9\%$ to $75,3 \pm 18,0\%$ ($p = 0,0002$). Twelve of these patients presented an increased IC (192 ± 139 mL), associated with an increase of the slow vital capacity (240 ± 260 mL), $p = 0,0017$. No significant difference was observed in the forced vital capacity (FVC) and FEV1 between the two groups: responders (FVC $74 \pm 16\%$, FEV1 $39 \pm 12\%$) vs. non-responders (FVC $73 \pm 14\%$, FEV1 $44 \pm 12\%$) to CPAP. Conclusion: Considering that the total lung capacity of patients with stable COPD remains constant, CPAP may reduce the pulmonary hyperinflation. Patients who respond to variations of CPAP may benefit from this therapeutic approach, with the application of an individualized "best CPAP".

0202 A RETROSPECTIVE REVIEW OF THE USE OF NASAL CONTINUOUS POSITIVE AIRWAY PRESSURE FOR INFANTS IN INTENSIVE CARE FOLLOWING CARDIAC SURGERY

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Objective: To review the use of nCPAP via flow-driver in infants following cardiac surgery: the change in clinical observations and reintubation rate.
Background: The use of nCPAP has been extensively studied in the preterm infant. A recent Cochrane Review¹ concluded that nCPAP is effective in preventing failure of extubation in preterm infants following intubation. Another study² found no difference in duration of ventilator or CPAP use between preterm infants using CPAP electively and for rescue. The efficacy of nCPAP following extubation has not been established in the cardiac infant.
Method: Clinical data was taken from the Paediatric ICU Clinical Information System (CareVue) for all patients following cardiac surgery over a one year period from July 2002. All infants who received nCPAP after extubation were selected for review (32). The median weight was 3.6kg (2.5-5.6) with a median age of 1.5 months (1 day-12 months). The patients reviewed were subdivided:
Group A: nCPAP electively following extubation (22)
Group B: rescue nCPAP on respiratory deterioration (10)
HR, RR, SpO₂, PaO₂ and PaCO₂ were compared 1 hour before and 1 hour after commencement of nCPAP. Statistical analysis was performed using the paired t-test.
Results: There were no statistically significant differences between pre and post values of HR, RR, SpO₂ and PaCO₂ in either group. In Group B PaO₂ was significantly lower (p<0.03) 1 hour after instigating nCPAP.
In Group A 27% of infants (6) required reintubation. Five due to respiratory decompensation and 1 electively for cardiac catheter. The median length of use of nCPAP was 24 hours (1-168). In Group B 10% were reintubated (1). This infant was reintubated due to respiratory decompensation. The median length of use was 30 hours (2-48).
Conclusions: This review indicates that rescue nCPAP is an effective method of preventing reintubation in infants following cardiac surgery. The drop in PaO₂ in this group is of interest and may be as a result a variety of factors. In many centres it is used electively based on clinical assessment, however, in this review the elective group had a higher reintubation rate. We feel this may indicate that infants at high risk of failing extubation are electively placed on nCPAP. A randomised controlled trial is required to compare the use of elective and rescue strategies in this patient group both in terms of clinical efficacy and length of stay on PICU.
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2. NJ Robertson, PA Hamilton (1998) Randomised Trial Of Elective Continuous Positive Airway Pressure (CPAP) Compared With Rescue CPAP after Extubation. Arch Dis Child Fetal Neonatal Ed 79:F58-60

0203 RESPIRATORY DISTRESS AND SHOCK: ATYPICAL PRESENTATION OF LEPTOSPIROSIS

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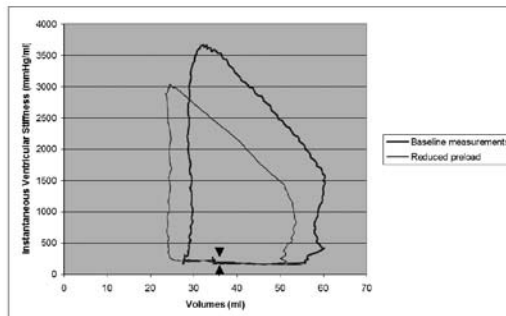
OBJECTIVE: To present a clinical case of leptospirosis of atypical presentation admitted to our intensive care unit (ICU).
MATERIAL AND METHODS: 57-year-old female patient without any important history admitted to our unit due to respiratory failure. The patient had had one-week history of fever (39°C), myoarthralgias, malaise, isolated hemoptysis and her home was a positive focus for zoonosis (presence of rodents in the house). On admission, she was intubated and mechanically ventilated, PaO₂/FiO₂ index: 130, her chest radiographs showed bilateral infiltrates, she was hypotensive and since she did not respond to initial resuscitation, inotropic infusion was administered. Laboratory findings on admission: white blood cell count: 16800, urea: 98 mg%, creatinine: 1.8 mg%, hematocrit: 27%, SED rate: 110, metabolic acidosis. A Swan Ganz catheter was inserted and the following measures obtained: CI: 5.16, PCWP: as high as 18 mm Hg, PVR: 88. Blood cultures and tracheobronchial aspirates were taken for AFB and common pathogens; serology tests for atypical pathogens and HIV were performed; they all yielded negative. Serology tests for Hantavirus, Argentine hemorrhage fever and leptospirosis were requested. She started empiric combined antibiotic treatment with piperacillin/tazo and clarithromycin. Her hemodynamic status worsened and the inotropic requirements increased accordingly. Creatinine was back to normal levels without any evidence of hepatic or hematologic failure. On the fourth day the patient remained feverish with PaO₂/FiO₂ = 130; punctures were repeated and the antibiotic therapy shifted to imipenem. Treatment with drotrecogin alfa (activated) followed. A chest CT scan revealed right lung consolidation and signs of ARDS. On the sixth day inotropics were discontinued; the patient remained feverish with marked leukocytosis; transthoracic puncture and new cultures were performed, yielding all negative. On the tenth day we received the results of the microagglutination test (MAT) and the TR macroagglutination test positive for leptospirosis. On the fourth day of treatment the patient was weaned from the ventilator evolving well and recovering ad-integrum.
DISCUSSION: We want to highlight this case because of its rare clinical presentation and evolution, with pulmonary involvement resulting in ARDS and severe hemodynamic failure, without related renal or hepatic failure or coagulopathy. Despite the delayed results of the serologic tests for leptospirosis, antibiotic coverage was carried out in accordance with a positive epidemiologic focus. We believe that this condition should be taken into account in our environment in presence of severe community-acquired pneumonia.

0204 THE "DIASTOLIC" FRANK-STARLING MECHANISM IS ATTENUATED IN HUMANS WITH IMPAIRED DIASTOLIC FUNCTION

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Background/Objectives: The systolic Frank-Starling mechanism describes an increase in myocardial systolic force as a response to an increase in left ventricular end-diastolic volume. Recent advances in molecular physiology have identified a molecular spring theory where the end-diastolic stretch of titin is important in generation of the systolic Frank-Starling mechanism. Maximum compression of titin has been shown to produce a spring response in experiments on a molecular level, but has not been demonstrated in vivo. We demonstrated that this phenomenon could generate a "diastolic" Frank Starling mechanism in humans whereby relaxation is improved with reduced volume. A lower end-systolic volume is associated with shorter average lengths of sarcomeres within the ventricular myocardium. Enhanced compression of molecular titin during end-systole generates higher rebound force of the compressed molecular spring during diastole. Impairment of diastolic function has been associated with alteration of titin isomers leading to a change in "spring" mechanism. We postulate that the diastolic Frank-Starling mechanism is attenuated in patients with diastolic dysfunction.
Methods: In 9 patients undergoing coronary artery bypass graft surgery, a 6F Millar combined pressure/conductance catheter was inserted via the right upper pulmonary vein to lie in long axis of the left ventricle, for pressure-volume loop acquisition. Simultaneous tranesophageal echocardiography measurement of diastolic function was performed. Measurements were performed prior to cardiopulmonary bypass (baseline) and after rapid removal of blood from the aortic cannula to reduce preload (hypovolemia). The instantaneous pressure/volume index (stiffness) is proportional to the ventricular force. It was calculated from static pressure-volume loops, and used as a measurement of instantaneous ventricular stiffness, and plotted against volume to produce stiffness-volume loops.
Results: In patients with diastolic dysfunction (echocardiography evaluation), hypovolemia resulted in reduced end-systolic and end-diastolic left ventricular pressure and volume. Instantaneous stiffness was not reduced during the diastolic rapid filling stage compared with baseline measurements at equal diastolic volumes. Instantaneous stiffness remained unchanged throughout diastole to the same degree as baseline values (Fig 1).
Conclusion: Reduced volume does not improve relaxation in patients with impaired diastolic function, indicating that the diastolic Frank-Starling mechanism is attenuated, and is supportive of the concept of changes in the "molecular spring" as a contributor to diastolic dysfunction.



0205 USE OF RECOMBINANT ACTIVATED FACTOR VII (rFVIIa) IN PEDIATRIC SEPTIC SHOCK WITH DISSEMINATED INTRAVASCULAR COAGULATION AND SEVERE BLEEDING - CASE REPORT

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Septic shock is frequently associated with disseminated intravascular coagulation (DIC) which carries a high morbidity and mortality. Recombinant activated factor VII is a powerful initiator of hemostasis and has been used in many clinical conditions associated with hemorrhage such as trauma, heart surgery, neurosurgery and hemophilia although the pediatric use has been very limited. There are no consistent reports on the use of rFVIIa in pediatric septic shock. We present a child with septic shock and DIC treated with rFVIIa.

Case Report: A Korean 7 year old girl was admitted to our PICU due to sepsis and septic shock following polytrauma related to a car accident that occurred 1 month before the transfer to our hospital. She was being treated at Manaus (northern part of our country) where she was submitted to a partial splenectomy and to a second surgery (the day before transfer) due to bowel obstruction. At her arrival to our unit she presented fever, respiratory failure, severe abdominal distension, sepsis, multiple organ dysfunction syndrome and septic shock. After an initial stabilization period the patient was again submitted to an exploratory laparotomy to clean the abdominal cavity and remove suspected abscess seen in the abdominal CT study. During surgery the patient began to present a severe bleeding due to diffuse intravascular coagulation, especially from the abdominal cavity. During the 48 hours post-operation the average amount of blood loss was 1500ml every 12h and massive transfusions were needed in order to sustain the hemodynamic parameters. At this point we made the option, after the family consent, to administer the recombinant activated Factor VII (Novoseven®) in a dose of 100µg/kg. After receiving one dose of rFVIIa the bleeding was reduced to 30ml over the next 12 hours. All coagulation lab tests improved. Bleeding control made it possible to stabilize the patient and we were able to discharge her after 35 days of stay in our PICU. There were no side effects related to the use of rFVIIa.

Recent reports in the form of case studies and series, and early trial data, have suggested a role for rFVIIa across a diverse range of indications including bleeding associated with trauma, surgery, thrombocytopenia, liver disease and oral anticoagulant toxicity. This is, to our knowledge, the first pediatric case of DIC associated with septic shock treated with rFVIIa. A randomized trial is needed to verify the clinical usefulness of rFVIIa, on a routine basis, in pediatric septic shock and disseminated intravascular coagulation.

0206 PERCUTANEOUS TRACHEOSTOMY: CIAGLIA BLUE RHINO 4 YEAR EXPERIENCE

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Tracheostomy is frequently performed on critically patients in many intensive care units to facilitate weaning from mechanical ventilatory support and to prevent the complications associated with prolonged translaryngeal intubation. Open tracheostomy performed in the operating room has been the standard of care for the past years. There are known risk and costs associated with the transport of critically ill patients to the operating room for elective tracheostomy.

Objective: to determine surgical, postoperative and postdischarge complications associated with percutaneous dilational tracheostomy (PDT) in four years at the intensive care unit.

Methods: With local institutional ethical approval and informed consent from patient, all patients requiring percutaneous tracheostomy in the ICU were assessed. Absolute contraindications included enlarged thyroid gland, emergency tracheostomy, impalpable cricoid cartilage/trachea, active infections or malignant process in the tracheostomy area, stenosis of the upper airways, unstable cervical spine fracture. All patients were sedated, paralyzed and ventilated with 100% oxygen. PDT was performed using the modified Seldinger technique described by Ciaglia with a single, softer, tapered dilator marketed as the Blue Rhino.

Results: From October 2000 to February 2005 91 procedures were performed. The patients' ages ranged from 18 to 78 yr, with a mean of 56 yr. The underlying conditions leading to ICU admission are neurological disease 90%, respiratory failure requiring prolonged mechanical ventilatory support 10%. Before tracheostomy, all patients were intubated with oral tubes for a mean of 10 ± 4.2 (range 5-21 days). Most procedures were free of complications. There were 9 procedural complications identified in the study: premature extubation (2), bleeding not requiring transfusion (4), local infection (2) and tracheal ring fracture (1) of which required repair. The operating time was defined as the interval from puncture to the trachea until connection of the tracheostomy tube to the respirator and was 6.5 ± 2.2 min (range 2.5-12 min).

Conclusions: Percutaneous dilational tracheostomy is a safe and effective alternative to open surgical tracheostomy for intubated patients who require elective tracheostomy. Early in our experience, difficult anatomy (obesity, indistinct landmarks) or a contraindication to neck extension were contraindications to PDT. Over time, we have expanded the use of the Ciaglia technique to include these patients and now believe it is the preferred approach. The reduction in the translaryngeal intubation is consistent with recent reports that the early tracheostomy results in reduced mechanical ventilator days, intensive care unit days, and the incidence of nosocomial pneumonia.

Most of the complications were minor; major complications were encountered in only 1.1%. The absence of common complications reflects our increased expertise with the technical aspects of the operation.

0207 PENETRATING CRANIOCEREBRAL INJURIES WITH GUNSHOT WOUND: OUR EXPERIENCE IN THE HOSPITAL MUNICIPAL DE URGENCIAS. CÓRDOBA. ARGENTINA

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Background: "Society has lost the peace and its security". In the globalized world we are living irrational actions have increased and therefore Penetrating Craniocerebral Injury with Gunshot Wound. (PCI - GSW). Our need is to make an updating about patients' management, taking into account our present situation we should reduce morbidity-mortality of the victims or otherwise increase organ donors.

Objectives: Epidemiology analysis of PCI-GSW in the different steps (Prehospital or hospital). Clinical and neurosurgical management. Mortality and organs procurement.

Materials and Methods: Seventy-eight patients with PCI-GSW were seen at our "107" Emergency Medical Service and also admitted to Hospital Municipal de Urgencias between December 2000 to April 2004 were retrospectively evaluated. Data of patients' history included age, sex, cause of injury, Glasgow coma scale (GCS) at the scene and at hospital admission were performed. Pupil reactivity, CT scans (the extent of the damage, we classified the lesion as bihemispheric, unilateral, multilobar or transventricular), clinical and neurosurgical management, mortality, Glasgow outcome scale (GOS) and organs donors.

Statistical analysis was performed by means of percentage and Confidence Intervals.
Results: Mean age 34 years (range 15-88), 67 male pts. (86%). Most frequent cause of injury was urban violence (n: 78, 47%). 45 "died in scene" 57.7% (CI 95%: 46.7- 68.7%) and 33 "pts admitted al Hospital" 42.3% (CI 95%: 31.3-53.3%).

Of the last ones 17 with CT scan (51, 5% showed bihemispheric lesion in 9 (52, 9%), multilobar in 10 (58, 8%), transventricular in 7 (41, 2%), always with GCS < 5 points.

Also within the 33 pts. Admitted, 19 died (57,6%) in close correlation to initial GCS (n = 17/17 with GCS 3-5; n = 2 / 3 with GCS 6 -12; n = 0 / 13 with GCS 13 -15).

Five out of 33 pts hospitalized were organ donors (15, 2%). Overall mortality 82, 0%, and n = 64 (CI 95%: 73, 5 - 90.5%).

Morbidity 3% (n = 1, GOS 4). Survival with no sequela 15% (n = 13, GOS 5).

Clinical management: 100% of patients' aggressive resuscitation was performed.

Neurosurgical management: 100% surgical debridement and devitalized tissue around the entry/exit wounds was excised. Only one patient with enlarged hematoma was evacuated.

Conclusions: Epidemiology, age, sex, prehospital and hospital mortality were not different from other international reports. Patients with GCS 3, unreactive pupils, bihemispheric wound and ventricular injuries were associated to inevitable death.

First injury cause was urban violence unlike the rest of trials.

Medical treatment was the priority in our series.

Surgery was defined as GCS at admission, pupil reactivity and CT scan findings.

All PCI GSW patients should initially receive aggressive resuscitation in benefit to victims and also to provide donors organs.

Present study is the source to future protocols based in our cases and International recommendations of these patients' management.

0208 REGIONAL LUNG PERFUSION IS MORE UNIFORM IN THE PRONE THAN IN THE SUPINE POSTURE IN HEALTHY SUBJECTS DURING ANAESTHESIA AND MECHANICAL VENTILATION

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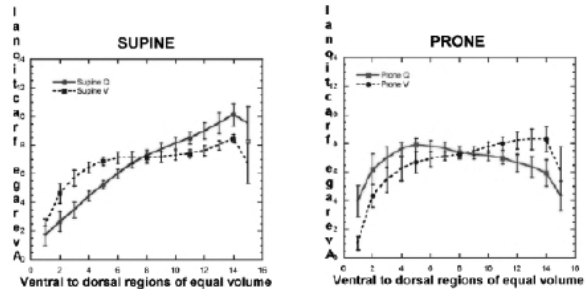
Background: Treatment in the prone position improves oxygenation in patients with ARDS (Acute Respiratory Distress Syndrome). The mechanisms are not known. Studies of regional ventilation and perfusion are therefore essential.

We have developed a new method using dual isotope quantitative Single Photon Emission Computed Tomography (SPECT) to simultaneously depict regional V and Q in human subjects. The method produces spatial information on the distribution of V and Q for the whole lung.

Methods: Eight healthy volunteers were studied during anaesthesia and mechanical ventilation. Regional Q was marked using iv-administered 113mIn-labelled macro aggregates of albumin. Regional distribution of ventilation was marked using radioactive Technegas (99mTc). Each subject was studied twice, once after isotope administration in the supine posture and again after administration in the prone posture. The distribution of the radioactivity was mapped by gamma camera tomography (SPECT). Attenuation and scatter were corrected for by algorithms using transmission images. At least two days separated the studies in the prone and in the supine posture. On both occasions imaging was performed in the supine posture.

Results: Our results demonstrate larger vertical distribution of perfusion to dorsal, dependent parts in the supine postures, in healthy subjects during anaesthesia and mechanical ventilation. In the prone posture perfusion was more uniformly distributed. Ventilation was uniformly distributed in both supine and prone position.

Conclusions: A more uniform perfusion in the prone posture matched the more uniform ventilation and could in ARDS patients be one of the mechanisms explaining improved oxygenation in the prone position.



0209 BIOCHEMICAL PARAMETERS CLINICAL VALUE: LACTATE, INTERLEUKINE-6, PROTEOLYTIC ACTIVITY AND REACTIVE C PROTEIN IN THE SEPTIC PROCESS

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Sepsis is a syndrome; is the result of an uncontrolled intra-vascular inflammation, due to a imbalance between the pro-inflammatory reaction and excessive anti-inflammatory response. This way the systems get more and more involved worsening the patients critical condition and increasing the risk of death. The result is the successive and each time more serious appearance of Severe Sepsis, Septic Shock, MODS and MOF. The concept of pathogenesis are in constant evolution. One of the systemic responses is mediated by cytokines (primary or secondary mediates). The granulocytes stimulation originates an increase in the proteolytic activity, being this the net result of the activity of all the proteases and all the anti-proteases (Alpha1 Antitripsine- 1AT and Alpha2 Macroglobuline-α2MG mainly). Lactic acidosis is the most common of the metabolic acidosis found in ICU, it is indicative of tissue hypoxia and it can also reveal a hypermetabolic condition.

Objectives: To evaluate: Proteolytic Activity (PA), α1AT and α2MG, Interleukine-6 (IL6), Reactive C Protein (RCP), Lactate (Lac), APACHE and TISS in two successive stages of the septic process and to relate them with sepsis classification and with the patient's degree of implication.

Material and Methods: 46 patients: Severe Sepsis (n=18) and Septic Shock (n=28), belonging to the Hospital de Clínicas Intensive Care Service. Classified according to ACCP/SCCM

Biochemical Specifications: PA: Highsmith-Rosenberg-I125casein, α1AT and α2MG: nephelometry, IL6: ELISA, RCP: immunoturbidimetry, Lac: enzymatic-colorimetric method

Statistical Tests: Fisher, Student, Mann-Whitney, Bin Log Reg, Discriminating analysis and ROC curves.

Results: table.

Conclusions: - Among stages

1) Highly significant differences in: APACHE (p<0.05), Lac (p<0.001), PA (p<0.01) and IL6 (p<0.001). 2) a) the probability of Lac and IL6 increase depends on the passing from the Severe Sepsis stage to the Septic Shock stage (p<0.05). b) Lac and IL6 (p<0.001) are the ones which separate in a better way. 3) Lac as well as APACHE differentiate between both stages in 87,9 % (area under ROC curve), having a bigger discriminating preponderance

- Between survivors and non-survivors

1) Significant differences for: Lac and APACHE (p<0.05). 2) Death probability can be predicted by the APACHE score with p<0.05. 3) By means of discriminating analysis the function which best discriminates between survivors/non-survivors depends greatly on: Lac and APACHE (p<0.01)

	Severe Sepsis (n=18)	Septic Shock (n=28)	p
Age (years)	73,72±13,23	75,57±11,92	>0,60
Gender (M/F)	6/12	9/19	>0,90
survivors/non-survivors	8/10	6/22	>0,10
APACHE II (score)	16,06±5,67	20,18±6,25	<0,05
TISS (score)	18,28±6,46	22,11±7,39	>0,15
PA (cpm)	1233,67±1161,77	2561,43±671,28	<0,01
α1AT (mg/dl)	221,11±99,72	252,25±108,70	>0,30
α2MG (mg/dl)	191,89±97,79	167,18±77,08	>0,30
IL6 (pg/ml)	224,22±29,09	624,89±399,65	<0,001
PCR (mg/dl)	100,22±65,18	130,04±48,78	>0,08
Lac (mmol/l)	2,44±1,21	5,67±3,36	<0,001

0210 SATI-Q PROJECT: BENCHMARKING QUALITY IN ARGENTINE ICUS

S.A.T.I. Net

Intensive Care Units (ICU's) participants of the SATI-Q Project

Background: When you think about the quality of ICUs, it is necessary to have a tool to design it, register it, audit it, modify it and/or optimize it. Quality leads to compare our conclusions with other units. That is why you need to homogenize the information. There are a lot of softwares in the world that are used as data base in the units and they help to audit the standards of quality. In Argentina, we are developing this activity through the SATI-Q project, which allows us to have important information in the scientific and research area. The project is prepared to compare the registers of each ICU with national and international standards.

Objectives: Expose the conclusions of the SATI-Q project, which is owned by the Argentine Society of Intensive Care (SATI) and used by volunteer ICU.

Methods: Political decision from SATI to develop a quality benchmarking system for Argentina.

Development of the SATI-Q Soft, Version 2.1. Distribution and training.

Standardization of the procedures, diagnosis and practices under an ICD9 codification.

Data collection. Data analysis with MS Access 2000 of all the information of patients, confined during 2003 and 2004 in all the units participating in the project.

Results: There were 35 ICU's. Patients: 13197. Mortality: 2355 (17.84%)

Total bed-days: 6538. Female: 5493 (41.62%). Male: 7628 (57.80%). Re-Admissions: 689 (5.22%). Age: Mode: 73 median: 65 min: 16 max: 104 media: 62 SD: 18.3. Apache II: Mode: 10

median: 14 min: 1 max: 56 media: 1 SD: 8.7. TISS28: Mode: 22 median: 20 min: 8 max: 60 media: 20

SD: 7.5. Risk Mortality (APACHE II): 23.50%. Mechanical ventilation associated pneumonia

Incidence e/1000 days: 17.86. Catheter infections Incidence e/1000 days: 5.06. Urinary infections

e/1000 days: 7.35. The soft allows each unit to analyze:

Epicrisis impression. Exportation of the data to MS Access, MS Excel and other statistic programs.

Automatic calculation of Apache II Scores, TISS 28 and Expected Mortality by Knauss.

Conclusions: It allows getting statistic information.

It doesn't necessarily mean a change in the working system of each ICU. It is just a tool to

standardize the information.

We have done a national data base of the patients in ICUs for the first time in Argentina

The Soft proved to be a useful tool to make quality benchmarking between the intensive care units in Argentina.

Variable	N	%
Episodes with scabs	485	3.68
Patients with mechanical ventilation	3963	30.03
Episodes with pneumonia	456	11.51
Patients with catheter	4172	31.61
Episodes with catheter's associated infections	136	3.26
Patients with foley tube	7841	59.42
Episodes with foley tube's associated urinary infections	266	3.39
Episodes with slidings not prog. from bed	29	0.22

0211

HEMOLYTIC UREMIC SYNDROME IN PICU: CLINICAL CHARACTERISTICS, TREATMENT AND PROGNOSTIC FACTORS OF MORTALITY

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Introduction: Hemolytic Uremic Syndrome (HUS) is characterized by acute renal failure, microangiopathic hemolytic anemia and thrombocytopenia. In Chile the incidence is of 3 to 4 out of 100000 people. The UCIP of Dr. Exequiel González Cortés Hospital represent 2,3% of the discharges in our unit.

Objectives: To describe the characteristics of the acute stage of HUS in our hospital and compare it with previous reports; and to evaluate the prognostic factors of mortality.

Patients and Method: Demographics and clinical patterns and biochemical and hematological parameters of patients with HUS admitted between January 1990 and December 2002 to the Pediatric Intensive Care Unit of Dr. Exequiel González Cortés Hospital of Santiago de Chile were analyzed. Risk factors for mortality using the logistic model were also evaluated. **Results:** 86 patients were enrolled; 50% females, 60% from the Metropolitan Region. Mean age was $1,5 \pm 1,4$ years (r: 0,17 a 6,5 years); 86% were D+; 29% occurred in the summer, 27% in spring; 86% presented anuria at the diagnosis and 47% Arterial Hypertension and 4% remained hypertensive at the discharge; Seizures presented 28%. The most used renal replacement therapy was the peritoneal dialysis (64%). Etiological agent was identified in 22% of cases, Enterohemorrhagic E. Coli was the most frequent isolated agent. The most frequent complications were peritonitis (14%) and Urinary Tract Infection (10%). A positive correlation with mortality in the acute phase was found with seizures and requirements of renal replacement therapies ($p < 0,05$).

Conclusions: clinical presentation had not changed in the last 36 years, mortality in acute phase decreased, seizures and dialytic therapies were the most significant features associated with mortality in acute phase.

Key words: Hemolytic uremic syndrome, acute renal failure, prognostic factors.

0212

USE OF SELECTIVE INHIBITOR OF INDUCIBLE NITRIC OXIDE SYNTHASE -L-N-IMINOETHYL LYSINE- IN ENDOTOXEMIA: OBSERVATION OF THE MICROCIRCULATION USING THE DORSAL CHAMBER TECHNIQUE

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Background: Excessive nitric oxide (NO) production is responsible for several effects found in septic shock, such as extreme vasodilation, low arterial blood pressure and miocardic depression.

Objective: The objective was to test the effects of a selective inhibitor of inducible NO synthase LNIL (L-N-iminoethyl lysine), infused during 2 hours (h), on endotoxemia.

Methods: Groups of *Mesocricetus auratus*, under endotoxemia produced by intravenous (iv) injection of lipopolysaccharide of *Escherichia coli* (LPS), 1 mg/Kg body weight were studied using the dorsal chamber technique. Eight groups of animals were evaluated, measuring mean arterial pressure (MAP), arteriolar (AD) and venular diameters (VD) and functional capillary density (FCD, number of capillaries with flowing red blood cells per unit area). The control group (G1) had only the dorsal chamber and catheters in the carotid artery and jugular vein implanted (n=13); G2 received 1 mg/Kg of LPS iv (n=11); G3 received LPS + the corresponding volume of NaCl 0,9% (n=11); G4 received LPS + 10 mg/Kg of LNIL immediately after the injection of LPS (n=8); G5 received LPS + 10 mg/Kg of LNIL starting 1h after the injection of LPS (n=8); G6 received just LNIL, 10 mg/Kg (n=3); G7 received 10 mg/Kg of LNIL starting 3h after the injection of LPS (n=3) and G8 received LPS + 3 mg/Kg of LNIL starting 3h after the injection of LPS (n=3).

Results: Considering (1) MAP the groups G2 to G8 did not have any statistical difference from G1, (2) AD decreased significantly only in G7 ($p < 0,0017$) and (3) VD was not statistically different from the control group in any of the groups studied. FCD, however, was significantly lower in all LPS-groups (G2 to G5, G7 and G8, $p < 0,0018$).

Conclusions: Our data suggest that the decrease in FCD, the main parameter to determine tissue survival, could be an early marker of microcirculatory dysfunction in sepsis, when the other microcirculatory parameters did not change with such a small dose of LPS. The infusion of LNIL did not improve significantly the observed decrease of FCD in the conditions evaluated.

0214

THE IMMUNE SYSTEM ACTIVITY OF SEVERE TRAUMA PATIENT COULD BE RECOVERED BY THE IMMUNOSTIMULATORY OLIGODEOXYNUCLEOTIDE IMT 504

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Background: Many severe trauma patients show a depression of the immune functions and have shown a decrease in monocytes and lymphocytes functional capacity. This phenomenon is believed to play a role in augmented susceptibility to secondary infections. We have previously shown the immunostimulating capacity of the PyNTTTGT oligodeoxynucleotides (ODNs) on B lymphocytes and plasmacytoid dendritic cells from primates and rats (J. Immunol., 2003, 171: 3697-3704). The PyNTTTGT prototype ODN was named IMT 504.

Objectives: To evaluate in vitro the ability of ODN IMT504 in recovering the immune capacity of altered cells from patients with severe trauma.

Methods: Monocytes and lymphocytes were studied, at entry, from whole blood samples obtained from patients with severe trauma and in healthy volunteers.

To evaluate the immune state of severe trauma patients we determine at entry the expression of HLA-DR on CD14 positive cells and CD40 on CD19 positive cells.

Then, and in order to find out if the ODN IMT 504 was able to immunostimulate circulating blood cells of severe trauma patients, we determined CD40 expression on CD19 positive cells (B lymphocytes) after 48 hours of in vitro ODN treatment.

Results: Thirteen patients were enrolled in the study. APACHE II score (at entry): 22.5 (16-31), SOFA score (at entry): 6 (10-15). Mortality at 28 days: 46 %.

Immune depression status of trauma patients was confirmed at entry, by a significant reduction in HLA-DR expression (expressed in % of positive cells) compared to healthy donor's cells: $44,28 \pm 12,28$ % vs. $80,34 \pm 12,16$ %, $p = 0,0006$. Moreover, CD40 on B lymphocytes (expressed by the geometric mean of fluorescence intensity, Gm) was also lower in patient samples: 95 ± 26 than in control cells: 134 ± 23 Gm, $p = 0,01$.

After a 48-hr culture with IMT504, Gm significantly increased in patient cells to 364 ± 148 ($p = 0,00001$).

Conclusions: The results here presented and bibliographic data has shown that monocytes and B lymphocytes are affected in severe trauma patient. However, when the patient cells were incubated with the immunostimulatory ODN IMT504 they seem to recover their immunocompetence as measured by the levels reach by CD40 expression after treatment. These observations are encouraging in order to consider a possible therapeutic use of the immunostimulatory ODN IMT504 on severe trauma patient to avoid eventual secondary infections and further complications.

0215 EARLY OR DELAYED PERCUTANEOUS TRACHEOTOMY? A PROSPECTIVE, RANDOMIZED STUDY

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Background: The percutaneous tracheostomy is a consolidated technique in the intensive care setting. The principal reasons of this success are the low incidence of adverse events and the lower use of resources. However, there is not a strong evidence about when to perform the tracheostomy and the effect of timing is not clear.

Objective: The main objective was: to compare the duration of mechanical ventilation and ICU stay between patients tracheostomized at day 5 and day 15. A secondary aim was to analyze the incidence of pneumonia and mortality in both groups.

Methods: The patients were randomized immediately after intubation to early (at day 5 ± 1) or delayed (at day 15 ± 1) tracheostomy, with a rate 1:2. The inclusion criterion was the requirement of oro-tracheal intubation with a life expectative greater than 24 hours. A second evaluation was performed before the procedure (early or delayed) to assess the indication of prolonged mechanical ventilation. The extubated patients, the anticipated tracheostomy or the patients with possibility of weaning were excluded of the study. Tracheostomies were performed using the tracheal forceps technique (Griggs). The duration of mechanical ventilation, intensive care unit (ICU) stay, incidence of pneumonia and mortality were documented. Analysis of data was performed using student's t-test and Fisher Exact test. p < 0.05 was considered significant

Results: Between June 1998 to October 2002, 1979 patients were admitted to our General ICU, with a mean APACHE II score of 19.2 ± 5.3. 290 patients were randomized for the present study, and 173 were excluded in the second evaluation. Only 117 patients were tracheostomized (54 early and 63 delayed). The mean age of the patients included was 52.6 ± 17.2 years. 70% were men. The mean APACHE II score was 23.1 ± 7.9. The principal causes of admission in ICU were: neurosurgical in 48.6% (56 patients), politrauma in 18% (21 patients) and respiratory failure in 14.5% (17 patients). A univariate analysis was performed (table 1). There were not any differences in age, sex, APACHE II score, or cause of admission. We found statistical differences between groups in the ICU stay and duration of mechanical ventilation.

Conclusions: In this particular setting, general ICU and critically ill patients (APACHE II > 17), the early tracheostomy could improve the mechanical ventilation weaning, and reduce the ICU stay. In contrast with some previously published data, we did not found a reduction of pneumonia or mortality.

Table 1: Early vs. Delayed tracheostomy. Univariate Analysis.

	Units	Early	Delayed	p
n°		54	63	
Age (years)	Mean ± SD	55 ± 2.3	50.6 ± 2.1	0.17
Sex (male)	n (%)	37 (67)	46 (73)	0.49
Apache II	Mean ± SD	23.2 ± 1.1	23 ± 1	0.92
Mechanical Ventilation days	Mean ± SD	14.4 ± 1.9	21.9 ± 1.7	0.0004
ICU stay	Mean ± SD	30.1 ± 3.5	39.9 ± 3.3	0.04
Pneumonia	n (%)	33 (66)	39 (62.9)	0.73
Mortality	n (%)	21 (39)	25 (40)	0.92

0218 THE SPECTRUM OF LAP BELT SYNDROME IN CANADIAN CHILDREN

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BACKGROUND :

Seat belts are proven to save lives. However when worn incorrectly or when the restraint does not fit properly a smaller individual, "lap belt syndrome" can occur. The aim of this study was to define the epidemiology and the pattern of injuries encountered in children with seat belt associated injuries.

METHODS:

In a prospective study, more than 2000 Canadian pediatricians and pediatric specialists were surveyed monthly for 18 months through a standing national surveillance program. A clinical identification form was designed to identify any child less than 18 years old restrained in a motor vehicle at the time of a crash with abdominal injuries (determined by operation or CT-Scan) or thoraco-lumbar spine injuries with or without neurologic involvement. Clinical information was obtained on all reported cases. Children restrained in child safety seats, booster seats as well as two- or three-point seat belts were included in the study.

RESULTS:

Twenty-one children with injuries compatible with lap belt syndrome were reported in Canada between September 2003 and February 2005. Their ages ranged between 2 and 15 years with a median of 8. Twelve were boys. The average Pediatric Trauma Score was 7 (range: 3 to 10). The minimal prevalence was estimated to be 1: 272 000 children aged less than 15 years old. In five crashes, there was a death of another passenger in the car. Although a third of the victims were less than 7 years old, only one was restrained in a booster seat and three were properly restrained with a three-point seat belt. Nineteen children had an abdominal lesion. Of these, 13 had an intestinal injury (8 small bowel perforations only, 2 small bowel and colon lacerations, one small bowel stricture and 2 sigmoid lacerations), 2 had hepatic lesions, 4 had splenic lacerations and 2 had a renal contusion. Nine patients had lumbar spine fractures (5 chance -type fractures, 2 compression fractures of a vertebrae, one fracture-dislocation of L2-L3 and one comminuted fracture of L2). Five of these patients presented with a complete paraplegia below the level of the lesion and none of these recovered. Thirteen patients had an abdominal wall ecchymosis or contusion associated with abdominal injury.

DISCUSSION:

In Canada, over an eighteen month period, twenty-one children have sustained lap belt syndrome, 5 of these children remaining paraplegic. These results call for high vigilance among physicians for seat belt associated injuries in restrained pediatric victims especially if they present with ecchymosis, contusions or abrasions over the abdomen. It also emphasize the necessity to review restraints in motor vehicles in order to protect children adequately and the urgent need for aggressive education efforts aimed for adequate child restraint use in motor vehicles.

0221 PREVALENCE OF ELDERLY MEDICAL ASSISTANCE AT THE EMERGENCY DEPARTMENT OF A PRIVATE CLINIC

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Background: The emergency department (ED) is an important way for hospital and ICU admissions. The elderly assistance at ED has increased lately. The discovery of the main diagnosis may avoid future medical conditions that would affect quality of life in such population.

Objective: To identify the prevalence of elderly medical assistance at the ED, considering the number of ICU and hospital admissions and the diagnosis.

Methods: A prospective study began from September 15th - November 28th 2004 in order to study the epidemiological data of elderly emergency assistance at a private clinic. The nosologic data were extracted from a protocol (Microsoft® Excel 2000) and a Sigma Stat 2.0 program was used for univariate analysis (interquartile limit 25-75%).

Results: 1526 patients were assisted, 188 old people: 44% male gender (83/188) and mean age 77.4 years-old (median 76.5 yo: 71.5 – 83 yo (25 - 75%). 8 old patients had signs or complaints of allergy (10% of general assistance) while 28 (11.2%) were assisted for fall or trauma. 89 patients of 245 fall / trauma cases had vaccination history, and only 9 of elderly people had it, specifically for tetanus prophylaxis. A total of 99 patients needed hospital admissions, almost 50% (47/99) of them was people aged up to 65 yo. The main diagnosis was respiratory diseases for this group. When the elderly was admitted on the ICU (14/26), the numbers of respiratory and heart diseases were similar (6 and 4). 2 old men had passed away at the ED (Mortality rate: 0.13%).

Conclusion: The expectation of life has modified the assistance pattern of ED even more at the ICU admission. Elderly represented 12.3% of emergency assistance and was responsible for 1/2 of hospital admission and the majority of ICU admission. The respiratory disease was a common entry diagnosis on the ICU. The lack of vaccination information shows that is important to be considered because of prevalence of respiratory diseases for elderly people.

0222

THE IMPACT OF EARLY RECOGNITION OF CARDIAC DECOMPENSATION IN THE MANAGEMENT OF INTRAAORTIC BALLOON COUNTERPULSATION WEANINGPA Lewis¹, M Courtney², D Mullany³, R Ballantyne³¹ Christchurch Polytechnic Institute of Technology, Christchurch, New Zealand; ² Queensland University of Technology, Brisbane, Queensland, Australia; ³ The Prince Charles Hospital, Brisbane, Queensland, Australia

Background/objectives: Intraaortic balloon counterpulsation (IABC) is weaned by varying combinations of vasopressor reduction, balloon volume reduction and frequency ratio reduction. The speed at which each reduction is weaned depends upon patient response. As IABC is predominantly instituted in the setting of cardiac failure, withdrawal of support while progressive, is reliant on the degree of cardiac recovery. The objective of this study was to design a weaning tool to accurately indicate early cardiac decompensation.

Methods: A weaning tool incorporating ten related aspects cardiac function was designed. The tool scaled and scored each aspect of cardiac function individually. This tool was then used to generate a score which would determine the patients individual level of cardiac function. Individuality was ensured as the tool score was compared against a set of patient baseline observations. Progressive patient scores were generated prior to support withdrawal and compared against this baseline. The wean process was thus patient dictated.

Results: Over a six month period 25 patients underwent IABC weaning with the use of the wean tool. Of these 25 patients 17 survived. While the wean tool scores appear indicative of the level cardiac failure, they were not statistically significant ($p=0.1$). A possible reason for this is the small population size of the individual group (25).

Conclusions: As cardiac function dictates the speed of IABC weaning, a vital component of weaning would appear to be early recognition of cardiac decompensation. It can be concluded, this wean tool which monitors individual cardiac function should generate a greater outcome success in the setting of IABC weaning.

0223

SPINAL CORD BLOOD FLOW CHANGES BY MIDAZOLAM DURING HYPOVOLEMIC SHOCKT Nishiyama¹, T Yokoyama², K Yamashita²¹ The University of Tokyo, Bunkyo-ku, Tokyo, Japan; ² Kochi Medical School, Nangoku, Kochi, Japan

Background: We already showed that intravenous midazolam 1 mg/kg increased spinal cord blood flow, while many studies show that midazolam decreased cerebral blood flow. Midazolam is often used for sedation or anesthesia for patients with hypovolemic shock because of its little adverse effects on hemodynamics. In the present study, we investigated the changes of spinal cord blood flow by intravenous midazolam during hypovolemic shock.

Methods: Twelve cats with 2.5 to 3.5 kg in body weight were tracheotomized under isoflurane anesthesia. Cats were laminectomized to expose lumbar spinal cord. A platinum electrode was inserted into the spinal cord to a depth of 1 mm at 2 mm lateral of the midline at L2. Cats were ventilated to keep end-tidal carbon dioxide tension between 30 and 35 mmHg under muscle relaxation with vecuronium under isoflurane 0.5%. Lactated Ringer's solution was administered through the femoral vein at a rate of 30 ml/kg/h. After the intravenous administration of saline 5 ml with (Midazolam group) or without (Control group) midazolam 1 mg/kg, arterial blood was drawn to decrease blood pressure to the half of the control value in 5 minutes. The blood pressure was kept for 30 minutes and then blood was returned in 10 minutes. Blood pressure (through the femoral artery), heart rate (by an electrocardiogram), and spinal cord blood flow (by a hydrogen clearance method) were measured until 30 minutes after the return of the blood.

Results: Blood pressure was higher in the Midazolam group after the return of the blood. Heart rate was lower in the Midazolam group both during and after hypovolemia. Spinal cord blood flow was higher in the Midazolam group during hypovolemia and at 30 minutes after the return of the blood.

Conclusions: During hypovolemic shock by bleeding, sedation or anesthesia with midazolam might be able to keep spinal cord blood flow higher than no treatment.

0224

SEVERE ACUTE PANCREATITIS IN SPAIN. IMPACT OF THE "NATIONAL 2004 CONSENSUS CONFERENCE IN PAMPLONA". 1st PHASEE Maraví¹, I Jiménez¹, A Tellería², J Escuchuri², A Gutiérrez², O Lozano²¹ Intensive Pancreatology Work Group-SEMICYUC; ² ICU, Virgen del Camino Hospital (VCH), Pamplona

Objective: Impact of the National 2004 Conference Consensus (CC) -Pamplona on the treatment and mortality of Severe Acute Pancreatitis (SAP) in Spanish ICU's, Sponsored by SEMICYUC. 1st PHASE: Comparative data.

Method: Data collection from the Spanish Study for the Surveillance of Nosocomial Infection (ENVIN) 1997-2003; Base designed for this purpose by the participating ICUs; Spanish and foreign data. Participation of the ICU's represented in the 2004 SAP-CC, in addition to those incorporated later. We compare the situation before (1st PHASE) and after (2nd PHASE) the publication of the 2004 SAP Consensus Conference in Med. Intensiva.

Results: (1st FASE)

- SAP-ENVIN 1997-2003: 405 SAP; Mortality = 29.7%; >70 years: 41.7%; Surgery: 31.6%; APACHE II: 15.7 ± 7.5; Nosocomial Infection: 80.5%; Pancreatic Infection: 19.5%.

- VCH-ICU year 2003: 103 Acute Pancreatitis = non-serious AP: 75.5% (Mortality: 2.5%); SAP: 24.4% (Mortality: 20%); >70 years: 45.2% mortality.

- Mortality in Spanish ICU's in 2003 y 2004: Zubia (Guipúzcoa): 28% & 35%; Marcos and Sánchez (Badalona): 13% & 23%; Andrade (Madrid): 61%; Sierra (Cádiz): 61% & 55%; Bautista (Córdoba): 61%; Maraví (Pamplona): 18%; Obón (Zaragoza): 61.3%; Caballero (Zamora): 48%.

- Mortality in Foreign SAP: Pederzoli 7.3%; Saino 3%; Schwarz 15%; Ho 5%; Bassi 10%; Smietansky 14.2%; Manes 11.3%; De Waele 30.4%; Spicak 20%; Isenmann 11%.

Conclusion:

Average SAP mortality (30%) in Spanish ICU's is greater than the average shown in the literature (8-12%). Survival varies greatly and 13% to 61.3% of the patients die. We must determine the impact of the "National 2004 Pamplona CC - SEMICYUC" on the causes of this variability and the high mortality in comparison with outside data

0225 COORDINATION AND DONATION OF "INTRA AND EXTRA-HOSPITAL" CADAVER DONORS. "THE PAMPLONA MODEL". SEQUENCE OF TASKS PERFORMED 1992-2004

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Objective: Sequence of tasks performed in a model for detecting and extracting Extra-hospital (EH) cadaver donor tissue from cardio-respiratory arrest (CRA) and Intra-hospital (IH) from cerebral death (CD), at a non-neurotraumatological ICU.

Methods: Multi-center and prospective study from 1992-2004, centralized in the Virgen del Camino Hospital (VCH).

Results: In 1990 a transplant team composed of an intensive medicine physician and two nurses was formed. A potential tissue donor is any cadaver from 1 to 60 years old which meets general donor criteria. The majority result from traffic accidents. The sequence of the tasks:

1. Alert from SOS-Navarra (Central Assistance Service, public). VCH transplant Coordinator is advised of the existence of a cadaver. The alerts come from different locations and hospitals where fatal accidents occur. The forensic physician on duty asks the examining magistrate for legal permission. Criteria for a potential tissue donor are verified. This phase lasts between 30' and two hours

2. Criteria for selecting, searching and contacting patients' relatives. Application of the different protocols for transporting, evaluating, and selecting the cadaver and enabling the forensic physician to act. The deceased's relatives are then located to obtain family permission, if possible in writing or by means of a telephone call. Blood samples are taken and data for the clinical history is gathered. By the time this phase is completed, between 3:30 and 12 hours have elapsed

3. Serology, extraction teams and transportation are notified. When the cadavers meet the criteria they become real donors. Firstly, the cornea extraction team intervenes in the autopsy room of the Navarra Institute of Legal Medicine or the VCH / Hospital surgery room. Cardiac valves, large vessels and bone tissue are then extracted in the Surgery room of the University of Navarra Clinic (UNC). Following local decontamination, in accordance with approved protocols, corneas, or vascular/bone tissue are prepared and stored in tissue banks at the VCH or CUN

4. Conservation, storage, distribution and transportation of tissue

5. Distribution of previously agreed incentives. The Coordinator informs the Judge and the Autonomous Region Coordination. The incentive distribution is drawn up for medical professionals involved in the detection, selection, serology, extraction and transportation, excluding the transplant activity

The coordination team is available 24 hours/day and 365 days/year. The work schedule is as follows: 8:00 – 15:00 hours = 26% of the time; from 15:00 – 20:00 = 25%; from 20:00 – 24:00 = 30% & from 00:00 to 8:00 = 19%

Conclusion: The Pamplona Model has made important organizational progress and it is the first to be implemented at a Hospital ICU which does not have its own organ donors. Detection is centralized in a public service (SOS-Navarra) which ensures accessible and economical coverage in the entire area

0226 COORDINATION AND DONATION OF "INTRA AND EXTRA-HOSPITAL" CADAVER DONORS "THE PAMPLONA MODEL": RESULTS 1992-2004

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Objective: Results of a unique model in the world for detecting, donating and extracting tissue from Extra-hospital (EH) cadaver donors due to cardio-respiratory arrest (CRA) and Intra-hospital (IH) cadaver donors due to cerebral death (CD).

Method: A prospective study of activity from 1992-2004 in a reference hospital (VCH) of the Spanish Transplant Organization (STO/ONT).

Results: Of the 833 alerts issued to VCH from SOS-Navarre: 23.3% (194) became "potential" tissue donors. The reasons for exclusion were: Family refusal: 7%; Medical counter-indication (age >60 years, unknown cause of death, infection or known drug addiction): 22.4%; Inability to locate relatives: 7.6%; Legal refusal or no alert from SOS-Na: 3% and negative "in-situ" examination (bone & ocular poli-traumatism and mutilated thorax, risk signs): 60%. The 194 PCR donors at VCH + 77 donors at the Navarra Hospital de Navarra MC add up to 271 "real" tissue donors. The following was extracted: Cortical bone tissue and ligament from 149 donors; 536 corneas; 115 scleras; and the extraction of cardiac valves and large vessels. 167 keratoplasties were performed in VCH; 246 were sent to neighbouring provinces and 23.7% of the corneas were rejected. The 115 scleras were sent to neighbouring tissue banks. 233 analyses related to tissue extraction and transplants were performed. HIV and BHV were urgently performed and the average time was 45 minutes at any time of the day. The following were determined in a deferred manner: Ac-CHV, RCP-CHV, VDRL, CRP-HIV, Rose of Bengala and VCM. All the serological tests were "negative", except three donors that tested positive for Virus Hepatitis C. A PCR was performed on the three samples that tested positive for VHC in order to determine the presence or absence of an active replication. Two of the tests showed negative; the rest showed positive and they were excluded as tissue donor. The STO/ONT has found that Navarre is a leader in extracting bone tissue with 44 pmp (the Spanish average is 11 pmp) and is 6th in cornea transplants with 54 pmp (the Spanish average is 61 pmp).

Conclusion: The percentage of tissue donors registered at the SNS-0 greatly exceeds the percentage registered at the Spanish INSALUD. The TD age is less than 60 years. The "Navarre model", with the Virgen del Camino Hospital as a reference, is positive.

0227 EARLY IDENTIFICATION AND PREVENTION OF ICU DELIRIUM: AN EVIDENCE BASED PRACTICE APPROACH

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Delirium in the Intensive Care Unit (ICU) has been identified in the literature as an independent predictor of patient morbidity and mortality. The occurrence of ICU delirium has been linked to poor patient outcomes, increases in ICU length of stay, and hospital costs. In addition, evidence links the incidence of delirium during a hospital stay with persistent cognitive disability.

Despite practitioner awareness of the high incidence of ICU delirium, there is a general disconnect between perceived importance, early identification, and intervention on modifiable risk factors that could prevent its occurrence. In ICU's, delirium is frequently under recognized, under diagnosed, and mis-managed. This may be due in part to the level of nurse knowledge of modifiable risk factors.

Recent evidence identifies the elderly population to be at an increased risk of developing ICU delirium. Patients 65 years old and older account for more than 60% of all ICU days. Research on hospitalized elderly patients have identified predisposing and precipitating factors for the development of delirium. In addition, it has been demonstrated that practical interventions targeted towards recognizing these risk factors and implement proactive strategies are effective in preventing delirium.

Throughout the months of March until June of 2005, an evidence based practice project will be conducted at the Johns Hopkins Hospital Surgical Intensive Care Unit. Using The Johns Hopkins Nursing Evidence Based Practice Model (Newhouse, R. et al., 2005) a multidisciplinary team of nurses and physicians will conduct a literature review on the identification of modifiable risk factors and early prevention of ICU delirium. Through this evidence-based practice project, we will develop clinical practice guidelines on the identification of modifiable risk factors and nursing interventions to prevent ICU delirium. The Johns Hopkins Nursing Evidence-based Practice model will be used to translate research findings into scientifically sound nursing clinical practice.

References:

Newhouse, R., et al. (2005). Evidence-based practice: a practical approach to implementation. Journal of Nursing Administration, 35(1), pp.35-40.

0228 KNOWLEDGE ABOUT NUTRITION IN INTENSIVE CARE UNIT PHYSICIANS OF PUBLIC HOSPITALS IN ASUNCIÓN CITYMM Jure Goiburú³, ME Goiburú³, H Bianco¹, A Filártiga³, C Ortiz²

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Background: Nutritional support is an integral part of the total care of the critically ill patient at the intensive care unit (ICU). These patients are often hypercatabolic and needing adequate nutritional support. The nutrition prescription, amount and follow-up usually are managed by the intensive care physician. However it is important to know the clinical nutrition expertise of these physicians.

Objective: To evaluate, in critical care physicians, their clinical nutrition knowledge grade and interest.

Method: The prospective survey encompassed 60 intensive care physicians from three public hospitals in the city of Asunción – Paraguay (22 specialists and 38 residents), with 34 ± 6 years old and professional experience in average of 5.8 ± 6 years. The survey contained 10 questions with answers of multiple choice to determine the knowledge grade accordingly to the obtained degree and 5 questions about the professional capacity and attitude related to nutritional support in the ICU.

Results: From the physicians surveyed 98.3% has considered that the nutritional treatment of the ICU patient has impact on the morbidity and mortality of the patients. In spite of this 88.3% of the ICU physicians has considered insufficient their clinical nutrition ability. Only 30% of the ICU physicians uses to read regularly clinical nutrition articles in scientific journals. Only 25% of them knows how to formulate parenteral nutrition and 30% has participated in any clinical nutrition course in the last 5 years. The total qualification for the 10 questions survey (for a maximum of 10), was 6.1 ± 1.9 for ICU specialist and 5.59 ± 2.3 for ICU residents ($p=0.3$). The physicians time of ICU experience made a difference since those with less of two years had a worse score than those with more than two years of ICU clinical practice (5.2 ± 2.3 versus 6.4 ± 1.7, respectively, $p=0.02$).

Conclusion: The clinical nutrition expertise in intensive care physicians in Paraguay is not adequate, and is lower in those physicians with less time of ICU clinical experience. These observations indicate the immediate necessity to invest in physician education in order to bring integral care to the ICU patient.

0229 BIPHASIC POSITIVE AIRWAY PRESSURE (BIPAP) VENTILATION: A USEFUL TOOL FOR THE CRITICAL CARE PATIENT?

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Background: BiPAP is a pressure controlled ventilatory mode that allows spontaneous breathing between two levels of Continuous Positive Airway Pressure (CPAP). The objective of this paper is to evaluate its usefulness for patient-ventilator interaction in patients requiring high sedative and muscle relaxants doses in order to be adapted to the ventilator with other ventilatory modes.

Methods: Study design: Prospective, observational, cohort study. Informed consent required.

Inclusion criteria: Patients ventilated with volumetric assist/control mode, requiring midazolam dosage greater than 0.3 mg/kg/h or pancuronium dosage greater than 0.04 mg/kg/bolus at least six times a day.

Exclusion criteria: Age < 18 yo, acute brain injury, COPD, relatives negative or participation in other trial.

Data collected: sex, age, diagnosis, APACHE II on day one, SOFA, Ramsay Scale, analgesia, sedation and muscle relaxants dosage, peak, mean and plateau airway pressures, tidal and minute volume, I:E ratio, respiratory rate, static compliance, intrinsic and extrinsic PEEP, complications, arterial blood gases, Pa/FiO₂ ratio, heart rate, mean arterial pressure, central venous pressure and inotropic drugs requirements every day until beginning of weaning or dead.

Statistical analysis: Two tails Student T test, a $p < 0.05$ was considered significant.

Results: From January 1st to December 31st 2004, 249 patients were placed on mechanical ventilation. Of these only 5 met the inclusion criteria, three males. Initial diagnosis: pneumonia (3), abdominal surgery (1) and blunt chest trauma (1). Mean value for age was 46 yo, for APACHE II 20.4, for SOFA 7, for Pa/FiO₂ ratio 155. There were no differences between initial and final values for: peak, mean and plateau airway pressures, tidal and minute volume, I:E ratio, respiratory rate, static compliance, intrinsic and extrinsic PEEP, arterial blood gases, Pa/FiO₂ ratio, heart rate, mean arterial and central venous pressure and inotropic drugs requirements.

At one tail level midazolam mean dosage was significantly reduced (0.3 mg/kg/h to 0.19 mg/kg/h $p < 0.05$), result not confirmed at two tails, possibly due to the sample size.

Although this, pancuronium requirements were significantly reduced at both levels (24 mg/d to 4.8 mg/d $p < 0.01$).

There were no complications attributable to the method. Two patients died and three were successfully weaned from ventilator.

Conclusions: BiPAP ventilation is a safe ventilatory mode, useful to diminish muscle relaxants and probably sedative dosage. In view of our results a comparative study with other ventilatory modes could be attempted.

0230 DETERMINATION OF ENZYME ACTIVITY IN SERUM AND LIQUOR AND ITS IMPORTANCE FOR THE CLINICAL COURSE AND OUTCOME IN PATIENTS WITH SEVERE TRAUMATIC HEAD INJURYB Djurovic¹, D Pejnak², D Stankovic², R Kronic-Protic¹, G Tasic¹, V Jovanovic¹

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A few studies demonstrated that the levels of AST, ALT, CK and LDH in traumatized patients are a prognostic parameter in their outcome.

The aim of this investigation was to present the influence of enzymatic activity of AST, ALT, CK and LDH in serum and liquor of patients with severe traumatic head injury with their clinical course and outcome.

24 of 27 patients admitted to the Neurosurgical Department of the Trauma center of Clinical Center of Serbia in a five months period (from September 1st 2003) survived. For all patients we analyzed the enzymatic activity of these enzymes in serum and liquor taken on the second and fourth day from the admittance.

There was no statistically significant difference ($P > 0.05$) between ALT, AST, CK and LDH values in serum and liquor on the second and fourth day after admittance. AST and LDH values in serum and liquor measured on the 4th day were lower compared with 2nd day in all survivors. Three patients who died didn't show this decreasing trend in enzyme values.

There was a significant correlation between values of LDH and AST both in serum and liquor.

Therefore, we can conclude that the determination of the AST and LDH activities in serum are sufficient as positive predictors of outcome in patients with severe traumatic brain injury.

0231 EXTREMELY SHORTENED ARTERIOVENOUS OXYGEN DIFFERENCE PHENOMENON AS PROGNOSTIC INDICATOR IN PATIENTS WITH SEVERE SEPSIS

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Background: Patients with severe sepsis may show shortened values of arteriovenous oxygen difference [C(a-v)O₂]. The prognostic value of this phenomenon is not well defined. Objectives: In this study we evaluated if extremely shortened arteriovenous oxygen difference [ESC(a-v)O₂] phenomenon in patients with severe sepsis is related to higher rates of hospital mortality comparatively with those in patients with severe sepsis who do not show this phenomenon. Methods: Prospectively, 32 consecutive patients with severe sepsis, secondary to surgically documented intra-abdominal sepsis, were monitored and C(a-v)O₂ was computed twice a day on the day of severe sepsis diagnosis (d1) and at least on one day between the 2nd day and 4th day (d2-d4), between (d5-d7) and between (d8-d14). We define ESC(a-v)O₂ phenomenon if C(a-v)O₂ values ≤ 2.5 vol.% and if it happens at least twice a day on one day during the patient evolution in the intensive care unit. Data was analyzed by Chi-square Test. Results: Group 1, with 12 patients (37.5%), showed ESC(a-v)O₂ phenomenon at least one day during their evolution with a hospital mortality rate of 91.3% (11/12). On the other hand, Group 2, with 20 patients (62.5%), showed an C(a-v)O₂ > 2.5 vol.% during their whole evolution, with a hospital mortality rate of 30% (6/20), Chi-square = 9.11, p < 0.01. Conclusions: In this study, presence of extremely shortened arteriovenous oxygen difference [ESC(a-v)O₂] phenomenon was related to a hospital mortality rate significantly higher than rate showed in patients with severe sepsis who do not showed such phenomenon. C(a-v)O₂ prognostic value should be reconsidered (it is not included in APACHE II nor APACHE III scores, nor in sepsis prognostic scores).

0233 RATS SURVIVING AFTER HIGH TIDAL VOLUME VENTILATION SHOW MARKED AND REVERSIBLE PULMONARY AND SYSTEMIC VASCULAR DYSFUNCTION

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Background/ Objectives. High tidal volume (VT) ventilation (HTVV) induces pulmonary inflammation. The time course of pulmonary and systemic HTVV-induced vascular dysfunction is unknown. We tested whether rats receiving HTVV survive the insult, and we describe the time-course of the HTVV-induced vascular changes. Methods. Normal anesthetized SD rats were tracheostomized and ventilated for 1 h. with either VT=9 mL/kg + PEEP 5 cm H₂O; or VT=35 mL/kg + ZEEP. After the HTVV period, the tracheostomy was closed, and rats were sent back to their cages breathing room air. Other rats were sacrificed at this point in time (t=1 h). Rats surviving the acute period of HTVV were again intubated, monitored and then sacrificed at different points in time (24 h, 72 h, 168 h). We measured mean arterial pressure, aortic blood flow (QAo), arterial blood gases, and total protein, AST, ALT, IL-6, and VEGF serum and BAL fluid concentrations. Aortic segments and pulmonary micro vessels were mounted in myographs, and responses to acetylcholine in norepinehrine-precontracted rings were tested. Histological lung changes were studied. Results. All lungs showed diffuse alveolar damage after HTVV at 1 h and 24 h, but histology was completely normal at t=72 h. HTVV induced hypotension, decreased QAo, hypoxemia, increased protein, AST, ALT, IL-6, and VEGF BAL fluid/serum concentration ratio. Acetylcholine and norepinehrine-induced responses were impaired after HTVV in aortic rings. Moreover acetylcholine-induced responses in pulmonary microvessels were impaired. All these biochemical and vascular function changes normalized at t=168 h. Conclusions. About half rats receiving for a short period of time ventilation using very high VT survive. HTVV induces in a reversible fashion pulmonary and systemic inflammation and vascular dysfunction. Funded FIS C03/11, G03/063

0234 ROLE OF PEROXINITRITE IN SEPSIS-INDUCED MICRO AND MACROVASCULAR DYSFUNCTION IN RATS

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Background / Objectives. The mechanisms contributing to macro and microvascular dysfunction in sepsis are not well known. We tested the hypothesis that peroxinitrite formation is involved in sepsis-induced vascular dysfunction. Methods. Sepsis was induced in adult SD rats by cecal ligation and puncture (CLP). Septic rats were studied 48 hr after CLP. Sham operated animals were used as controls. After exanguination, segments of the thoracic aorta and mesenteric microvessels (100 micras) were mounted in myographs for macro and microvessels (Mulyanys myograph) in organ baths. We studied endothelium-dependent relaxation to acetylcholine in norepinehrine-precontracted rings and contractions to norepinehrine. The presence of factor VIII (to test the endothelial integrity), nitrotyrosine (a footprint of peroxinitrite formation) and oxidized dihydroethidine (a marker of the generation of reactive oxygen species) was assessed by immunofluorescence in aortic rings. Means were compared by repeated measures ANOVA. Results. Sepsis induced: (a) In macrovessels, impairment of norepinehrine-induced contractions, whereas acetylcholine-induced relaxations were normal; (b) in microvessels, impairment in norepinehrine-induced contractions and acetylcholine-induced relaxations. All vascular responses (to norepinehrine in macrovessels and to both norepinehrine and acetylcholine in microvessels), markedly improved by ex vivo treatment with the methalloporphirin MnTMPyP (10 mM), a potent peroxinitrite scavenger, but not with SOD, tempol or L-NAME. All vessels tested stained for factor VIII. Vessels from septic but not from control animals stained also for nitrotyrosine and oxidized dihydroethidine. Conclusions. The generation of peroxinitrite plays a role in the sepsis-induced vascular dysfunction. This vascular dysfunction may improve by treatment with a peroxinitrite scavenger. Funded Fis C03/11, G03/063

0235 MONITORING HUMIDIFICATION OF VENTILATED PATIENTSE Gonzalez, X Arrieta, M Suarez
Clinica Las Condes

Background: Keeping an adequate humidity of the inspired air in patients exposed to mechanical ventilation becomes important to avoid the formation of mucus plugs and bronchial inundation or changes of the hydric balance. We found in our clinical work that the always quick and timely response of the nursing team to hemodynamic and respiratory alarms were not that efficient compared to the alarms of humidifier of the mechanical ventilators (MV).

Objectives: To evaluate the response of the nursing team to humidifier alarms of MV and observe their attitude with respect to possible failures such as temperature, a smaller size of the sensor cable than the circuit, or wrong calibration of the temperature of the chambers that induce an increase or decrease of the temperature of patients airway.

Methods: Non programmed supervision was conducted to prevent personnel from knowing that the study was being conducted. An analysis worksheet to patients in mechanical ventilation admitted to the Pediatric Intensive Care Unit in June and July 2004.

Results: Seventy-eight non programmed supervisions were done finding 34 episodes of malfunction of the humidifiers.

Type of inadequate function	Corrects Failure	Silences Alarm	No Response	n
Triggered Alarm	20	5	3	28
Humidifier Off	3	0	0	3
No Water in Humidifier	3	0	0	3

Conclusion: A failure in the humidifier was found in 43.5% of the supervision. In 8 (23.5%) of them, there was no response of the nursing team to correct the malfunction detected. This could cause a deterioration in the critical condition of our patients. This result motivated a programmed intervention to change these results. A lecture type class was given to the nursing personnel of the whole institution. It is very important that every nursing action should be supervised regardless of how simple it may seem. The successful care of a critical patient depends on paying continuous attention to details.

0236 ROLE OF ALBUTEROL IN SEPSIS-INDUCED DIAPHRAGMATIC DYSFUNCTION IN RATSH Piriz, N Nin, J Boggia, J Hurtado
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Background/ Objectives. The mechanisms contributing to diaphragmatic dysfunction in sepsis are not well known. We tested the hypothesis that Beta 2 agonist will improve the muscular dysfunction involved in sepsis.

Methods. Sepsis was induced in adult Wistar rats by cecal ligation and puncture (CLP). Septic rats were studied 48 hr after CLP. The animals were assigned to one of 3 groups: Group A: Sham operated (n=7); Group B: CLP (n=10); Group C: CLP + Albuterol 25 mcg/kg i-v 48 hr after CLP (n=7). Systemic hemodynamic, pulmonary gas exchange and acid-base metabolism were evaluated 48 hours after surgery and 20 min after drug administration. Diaphragmatic contractility was evaluated by measuring peak twitch tension (PTT) and force-frequency curves performance before and after muscle fatigue. Muscle endurance was evaluated using time to reach 50 % of maximum initial muscle fatigue. Means were compared by repeated measures ANOVA.

Results. CLP induced: (a) Metabolic acidosis and a decrease in aortic blood flow; (b) Decrease in the PTT when compared to Group A, either before or after fatigue, and (c) decrease muscle endurance. Albuterol significantly increased arterial blood flow, PTT and force-frequency curves. Muscle endurance was also enhanced.

Conclusions. Albuterol improved septic hemodynamic and diaphragmatic induced dysfunction.

0237 STEPWISE SEDATION PROTOCOL FOR THE INSERTION OF CENTRAL VENOUS CATHETERS: COMPARISON OF FENTANYL/MIDAZOLAM WITH KETAMINE/MIDAZOLAM, A PILOT STUDYPSL Silva¹, FVF Leão², GL Gurgueira¹, SOB Iglesias¹, HM Neto¹, WB Carvalho²

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Background/Objectives: The insertion of a central venous catheter in non-intubated patients when critically ill is considered to be a procedure associated with serious potential risk. The objective of this study was to develop and to evaluate a protocol for use of gradual mitigation in such patients, via two different mitigation regimens.

Methods: Patients (age range 1 to 168 months) from 2 pediatric intensive care units that were non-intubated and that necessitated central venous access were randomized to receive intravenous midazolam plus either fentanyl (F/M) or ketamine (K/M).

All patients were monitored for heart rate, blood pressure and O₂ saturation for the duration of the procedure and recovery time. O₂ by blow-by was administered for all patients. Patients were sedated initially with intravenous midazolam (0.05 to 0.15 mg/kg, maximum 5 mg/dose) followed by fentanyl (1 µg/kg, intravenous, maximum 100 µg/dose) or ketamine (0.5 to 2.0 mg/kg, intravenous). During the procedure, additional doses of midazolam (maximum total 0.5 mg/kg), fentanyl (maximum total 3 µg/kg) or ketamine (maximum total 4 mg/kg) were administered every 2-3 minutes, as necessary. Efficacy of the sedation (Children's Hospital of Wisconsin Sedation Scale – CHW¹), recovery time and adverse events were documented.

Results: Total of 46 patients, 25 (F/M) and 21 (K/M). Diagnostic categories were: sepsis (35%); respiratory (26%); neurological (15%); cardiovascular (11%); surgical (11%); and renal (2%). Indications for the procedure: infusion of vasoactive drugs (22%); patient with difficult intravenous access (18%); parenteral nutrition (4%); and monitoring (2%). For F/M group the doses (mean ± SD) were fentanyl (1.55 ± 0.77 µg/kg) and midazolam (0.23 ± 0.09 mg/kg) and in K/M group, ketamine (1.45 ± 0.68 mg/kg) and midazolam (0.28 ± 0.09 mg/kg). The following minor complications were observed in K/M group: hypersecretion (03 cases), hiccup (01 case) and in F/M group, mild upper airway obstruction (01 case). It was necessary to interrupt the procedure in two K/M patients to clear secretions.

Table - Characteristics of the patients, according to sedation regimen
(1) Median and interquartile interval (percentile 25, percentile 75)

(2) Variation in relation to the base values > 20%. Expressed in number of patients (%) that presented alteration.

Conclusion: Both procedural sedation/analgesia regimens of nonintubated patients, effectively achieved an appropriate sedation. No serious complications were observed and interruption of the procedure was necessary in only a minority of cases.

¹ Hoffman GM et al (Pediatrics 2002; 109: 236-243)

Variable	F/M	K/M	p
Age (months) ¹	15 (6-46)	14 (4-60)	0.440
Initial procedure time (min) ¹	7.0 (5-15)	5.0 (5-5)	0.058
Total procedure time (min) ¹	30.0 (23-45)	30 (20-45)	0.565
Total recovery time(min) ¹	55 (35-80)	56 (40-65)	0.740
Heart rate ²	2 (8%)	4 (19%)	0.390
Respiratory rate ²	13 (52%)	5 (24%)	0.072
Systolic pressure ²	7 (28%)	4 (19%)	0.514
Diastolic pressure ²	10 (40%)	6 (29%)	0.538
CHW	3.32 ± 1.52	3.33 ± 1.11	0.973

0239 EFFECTS OF THE EXPOSURE TO HYPERBARIC OXYGEN THERAPY ON DIFFERENT EXPERIMENTAL MODELS OF ABDOMINAL SEPSIS

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Background: In spite of strong improvement in basic research, technological advance and increment in therapy, a corresponding decrease in sepsis-related mortality has not occurred. The discovery of new drugs and the establishment of different treatment strategies constitute an actual challenge. In addition to antibacterial effects, many experimental studies have shown different effects of hyperbaric oxygen therapy (HBO), such as inhibition of several pro-inflammatory cytokines.
Objectives: We evaluated the effects of HBO in association with antibiotics as an adjuvant sepsis treatment, in different experimental models of peritoneal sepsis.
Methods: Isogenics BALB/C mice, of both sexes, 6-8 weeks old, were used; cecal ligation and puncture (CLP) or peritoneal inoculation of pathogens were performed. An antibiotic (ciprofloxacin) was dispensed 4 hours after the surgical procedure (CLP) or intraperitoneal bacteria inoculation. The animals were divided into 2 groups, one of them being submitted to 2 daily HBO sessions (100% O₂), with a duration of 60 minutes each, during 5 days, in a hyperbaric chamber for experimental animals, under an atmospheric pressure of 2 absolute atmospheres.
Results: No statistically significant differences were observed in lethality, release of cytokines or differential cell counts with this protocol and with these experimental models of peritoneal sepsis.
Conclusion: We concluded that HBO did not comparatively change the pattern of the cytokines studied or the recruitment of innate immunity cells. As an adjuvant treatment of experimental peritoneal sepsis in mice, HBO did not provide any additional protection, as lethality was similar between the control groups and those submitted to hyperbaric oxygen.

0241 EMERGENCY MEDICINE RESIDENTS INTUBATION SKILLS: ANALYSIS OF 240 CASES

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Background/ Objectives: Intubation complications are less frequent after a long period of training. Residency training may affect the likelihood of complications. In the studied hospital, the Emergency Medicine residents training in airway management is performed in the emergency room, after having practiced in dummies. The present study describes the techniques, indications, and complications of tracheal intubations in an emergency room of Hospital de Pronto Socorro de Porto Alegre, Brazil.
Methods: This is a prospective observational study in a level 1 trauma center, where an Emergency Medicine residency program takes place. It was performed from November, 2003 to June, 2004. We registered all intubations in the period concerning the indication of intubation, techniques applied, drugs used, number of intubation attempts, immediate complications and the intubator's academic degree.
Results: A total of 240 tracheal intubations was registered, with an average of 1,2 (0-5) intubations a day. The series was composed by 51% clinical cases (the most frequent diseases were stroke [17,5%], cardiac arrest [9,6%], respiratory infection [3,8%]) and 49% victims of external causes (most frequent indications were blunt head trauma [23,8%], polytrauma [7,5%] and poisoning [4,2%]).
 The techniques applied for intubation were: orotracheal intubation (without paralysis), used in 192 (81%) cases; rapid-sequence intubation (RSI) in 33 (13,9%); nasotracheal in 3 (1,3%), multiple techniques, 7 (2,9%), cricothyrotomy 2 (0,8%). According to the first intubator's graduation the distribution was: PGY1: 145 (60,4%), PGY2: 57 (23,8%), PGY3: 10 (23,8%), attending emergency physician: 27 (11,3%), visiting resident: 1 (0,04%). The rates of global success in the first attempt are shown as follow:
 Esophageal intubation, although immediately recognized in all cases, was the most common complication (n=40). It happened in 11% of orotracheal intubations and 3% of the RSI (p<0,005). Significant complications occurred in 15,7% of intubations, 6,6% in clinical cases and 9,1% in victims of trauma. These complications were: desaturation below 85% (25 cases), aspiration (12) and vomit (9). Desaturation occurred in 15,2% of the RSI and in 7,8% of the orotracheal intubations (p=0,012).
Conclusions: We have observed in our series high rates of complications that may be related to the great number of intubations performed by residents in the beginning of their training program (PGY1), as well as a small number of RSI. We could modify our training program in order to make the procedures safer.

Degree	N	Initial attempt		Rescue intubation		
		Initial success(%)	Global success(%)	N	Initial success(%)	Global success(%)
PGY1	145	61,3	68,2	3	66,6	100
PGY2	57	71,9	94,7	25	56	92
PGY3	10	80	100	3	33,3	100
Attending	27	62,9	85,1	22	54,5	86,3

0242 EVALUATE ICU SURVIVAL PREDICTIONS BY PHYSICIANS IN COMPARISON WITH THE APACHE II SCORE INDEX

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Background – Accurate prognostic information for critically ill patients could help clinicians with decisions such as whether and when patients might benefit from intensive care. This subject is crucial in the clinical settings when the numbers of ICU available beds are not enough to assist the totality of critically ill patients. Predicting outcomes for critically ill patients is an important aspect of discussions with families in the intensive care unit, however the perception of ICU physicians relative with the clinical outcome of the critically ill patients has not been often reported.
Objective – To evaluate ICU survival predictions by ICU physicians in comparison with the APACHE II score index; to verify if the age, gender and the length of work in the ICU had any influences in their perceptions; to compare the ICU physician perceptions against perception from physician from other hospital settings.
Method – Transversal study, approved by ethical committee. Firstly, was applied a questionnaire to the ICU physicians containing questions about the prognostic of the ICU patients (n=16). In a second turn five clinical cases from patients enrolled in this study were distributed to the six not ICU physicians that answered the same questionnaire. The variables analysis were performed using parametric and non parametric tests (significant p≤0,05).
Results – Six ICU physicians and six other physicians participated in the study. The mean age of these professionals was 36,8 and 38,5 yrs, respectively. In the first study branch, prediction of death by the APACHE II was 24,1% and by the ICU physician perception was 34,7%. The actual mortality rate was 31,2%. Within the female ICU physicians, the mean prediction of death was 41,2% and within the most experienced staff was 36,2% (p≤0,05). The second turn showed that the perception of the ICU physicians to the same subject were worst, 48,8%.
Conclusion – We observed a tendency toward a worse prognosis by the physician perspective, when compared with APACHE II and the actual mortality rate. This impression was still worse within the ICU physicians more experienced and the females.
Keywords – prognosis, score index

0243 PEDIATRIC HOST DEFENSE: NOSOCOMIAL INFECTION, SEPSIS AND NEW TREATMENT MODALITIES

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Background: The pediatric immune system is less efficient than that of the adult. When combined with an invasive environment, such as the pediatric intensive care unit (PICU), many health care challenges arise. Primary bacteremia is the major nosocomial infection (NI) in neonatal and pediatric populations (Richards, Edwards, Culver, Gaynes & the Nosocomial Infections Surveillance System, 1999) and substantially increases their risk of developing severe sepsis. Severe sepsis gives rise to an average annual mortality rate in the United States of 30% in adults and 10% in children, accounting for approximately 215,000 deaths and hospital expenditures of over 16 billion dollars (Angus et al., 2001). In light of these statistics, innovative approaches for treating sepsis are being investigated.

Objectives:

Overview: Sepsis and sepsis related sequelae; Immune system: 1st, 2nd and 3rd lines of defense.

Discuss: Pediatric NI within the PICU environment; Effects of Transient Immunocompromise (TI) in critically ill patients; How TI and NI interrelate with breached barriers to increase severe sepsis development; Limitations and new directions of conventional sepsis management; Emerging therapeutic modalities that focus on molecular facets of the hematological system to decrease sepsis related mortality; Coagulation and inflammatory response changes characteristic of the sepsis process.

Methods: Literature Search: NI, Immune system: differences between neonates, children and adults and effects of the critical care environment on the immune system; Severe Sepsis: Mortality incidence, coagulation and inflammatory changes, conventional management, clinical trials of innovative therapies (neonate, pediatric, adult).

Results: Of the Phase III Clinical Trials, only drotrecogin- α (activated) has been approved by authorities of the U.S. Federal Drug Administration (FDA) (FDA News, 2001) and the Biologics and Genetic Therapies Directorate (BGTD) of Health Canada (Canada news wire, 2003), for use in adults with severe sepsis. However, a worldwide trial is currently underway to assess drotrecogin- α (activated) benefits in the pediatric population. Additionally, use of CSFs to halt septic related mortality in septic pre-term neonates, are being investigated further in a large phase III trial in the UK (National Perinatal Epidemiology Unit, 2004).

Conclusion: Severe sepsis, involving altered coagulation and inflammatory defenses, is on the rise consuming thousands of lives and billions of health care dollars per annum in the U.S. alone. The intensive care environment houses severely ill, immunocompromised patients that when combined with a highly invasive environment can increase susceptibility to NI and the development of severe sepsis. The use and continued research of molecular based treatment strategies, combined with improvements in conventional sepsis management, and reduction of NI through bedside practice changes, will impact and improve overall mortality related to the vast and still somewhat un-chartered process of severe sepsis.

0244 THE INFLUENCE OF COLLAPSE AND REVENTILATION OF LUNG ON THE DEVELOPMENT OF PULMONARY EDEMAS-S Chung, C-Y Jeong, S-H Kwak, W-J Jin, S-W Jeong
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Background: This study was to clarify the influence of collapse and reventilation on the development of pulmonary edema in rabbits.

Methods: Animals were randomly assigned to one of three groups. Sham group receiving two lung ventilation (n=14), collapse group receiving collapse of right lung (n=14), and reventilation group receiving collapse of right lung for 3 hours followed by reventilation of collapsed right lung for 3 hours (n=14). The lungs of rabbits were ventilated with 50% oxygen through tracheostomy. The right main bronchus was secured by tracheostomy in all animals. Collapse and reventilation were performed using by bulldog forcep. Mean arterial pressure, heart rates, arterial oxygen tension, and peripheral blood leukocytes and platelet counts were recorded at 0, 1, 2, 3, 4, 5 and 6 hours after the start of experiment. The wet/dry weight ratio, lung injury scores, leukocyte counts, % of PMNL, and concentrations of albumin and IL-8 in bronchoalveolar lavage fluids were measured 6 hours after the start of experiment in both lungs.

Results: The wet/dry ratio, lung injury score, leukocyte counts, % of PMNL, and concentrations of albumin and IL-8 in bronchoalveolar lavage fluids were significantly increased in both lungs of reventilation group. The magnitude of increases were more significant in right than left lung.

Conclusions: These results suggested that reventilation of collapsed lung caused bilateral pulmonary edema in rabbits mainly by activating neutrophil and IL-8 responses, which may play a central role in non-cardiogenic pulmonary edema.

0245 INFECTIONS CAUSED BY ACINETOBACTER SPP IN CRITICALLY ILL PATIENTS ADMITTED TO THE ICUF Alvarez-Lerma¹, M Palomar², P Olaechea³, J Insausti⁴, E Cerda⁵

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Background: To determine the frequency of infections caused by Acinetobacter spp in critically ill patients admitted to Spanish intensive care units (ICUs) and to assess the clinical features and outcome.

Patients and method: Prospective, observational, and multicenter study. Between 1997 and 2003, patients admitted for one or two months to the ICUs that participated in the National Nosocomial Surveillance Study (ENVIN project) were included. Patients were classified into infected by Acinetobacter spp, infected by other pathogens, and uninfected.

Results: Of a total 34,914 controlled patients, 3,450 (9.9%) presented 5,599 episodes of nosocomial infection during their stay in the ICU (1.6 episodes per patient with infection). In 343 patients (9.9%), a total of 406 infectious episodes were diagnosed in which Acinetobacter spp was one of the causative pathogens (cumulative incidence 1.2 infection episodes per 100 patients). The isolation of Acinetobacter spp was especially relevant in nosocomial pneumonia in mechanically ventilated patients (12.7%). A. baumannii was the predominant species in all infections, with 357 isolations (87.9%). In 22 cases (5.4%), identification of species was not performed. In the multivariate analysis, independent variables significantly associated with infection caused by Acinetobacter spp were medical (OR = 2.47; 95% CI, 1.24 to 4.91) or trauma underlying disease (OR = 4.40; 95% CI, 2.20 to 8.80) and ICU stay (OR = 1.03; 95% CI, 1.02 to 1.04). The overall mortality rate in ICU patients with infection (31.1%) was similar to than in patient with infections caused by Acinetobacter spp (31.5%), although in both cases it was significantly higher than in uninfected patients (10.7%). On the other hand, intra-ICU mortality rates in patients with imipenem resistant and imipenem sensitive Acinetobacter spp infections were not significantly different (33.3% vs 30.0%; p=0.7283).

Conclusions: Acinetobacter spp were present in 9.9% of patients with ICU-acquired infection, particularly in pneumonias associated with mechanical ventilation. A. baumannii predominated in all foci, and there were no significant differences in intra-ICU mortality rates between patients with Acinetobacter spp infection and patients with infections caused by other microorganisms.

0246 CLINICAL USE AND TOLERABILITY OF VORICONAZOLE IN THE TREATMENT OF FUNGAL INFECTIONS IN CRITICALLY ILL PATIENTS

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Objective: The clinical use and tolerability of voriconazole in actual conditions of the daily practice for the treatment of fungal infection in critically ill patients was assessed. Patients and method: Open-label, non-comparative, observational, study. All patients admitted to medical-surgical ICUs of 21 hospitals in Spain between February 2003 and January 2004, who were treated with voriconazole because of known or suspected fungal infection were included. Results: A total of 130 patients received voriconazole (6.2 cases per ICU). Fungal infections were classified as proven in 50 patients (38.5%) and probable in 38 (29.2%). The etiology was established in 103 patients, with *Candida albicans* and *Aspergillus fumigatus* as the most common pathogens. In 98 (75.4%) patients, voriconazole was initially administered intravenously. Fifty-three patients (40.8%) were treated with other antifungal agents prior to the use of voriconazole. In 21 patients (16.2%), voriconazole was administered in combination with other antifungal drugs. Clinical responses were cure and improvement in 65 (50%) patients, failure in 26 (20%), and undetermined in 39 (30%). The crude ICU mortality was 49.2%. In the multivariate analysis, ICU mortality was significantly associated with pneumonia (OR = 3.30, 95% CI 1.07–10.18) and infection caused by *Aspergillus* spp. (OR = 3.70, 95% CI 1.12–12.28), whereas eradication of the causative microorganisms was inversely associated (OR = 0.13, 95% CI 0.05–0.34). Adverse events were recorded in 65 patients, probably or possibly related with the study drug in 21. Conclusions: in critically ill patients admitted to the ICU, the use of voriconazole was effective in 50% of cases. The drug was well tolerated and discontinuation of voriconazole treatment due to adverse events was not necessary.

0247 STAPHYLOCOCCUS AUREUS INFECTIONS IN CRITICALLY ILL PATIENTS ADMITTED IN ICU

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Background and objectives: To investigate the frequency of infections caused by *Staphylococcus aureus* in critically ill patients admitted to Spanish ICUs and to describe the characteristics and outcome of patients in whom this pathogen was isolated.

Patients and methods: Prospective, observational, and multicenter study. All patients admitted during one or two months to the participating ICUs in the National Nosocomial Infection Surveillance Study (ENVIN) between 1997 and 2003 were included. Patients were classified as infected by *S. aureus*, infected by other microorganisms, and without nosocomial infection.

Results: A total of 34,914 patients were controlled of whom 3450 (9.9%) had acquired a nosocomial infection during his/her ICU stay (16.0 infections per 100 patients). In 682 (19.8%) patients, a total of 775 infectious episodes in which one of the microorganisms isolated was *S. aureus* were documented (cumulative incidence 2.2 episodes of *S. aureus* infection per 100 patients). There was a predominance of *S. aureus* infection in patients with pneumonia associated with mechanical ventilation (21.4%) and in patients with catheter-related bacteremia (13%). Independent variables associated with *S. aureus* infection were male sex (OR 1.25, 95% CI 1.03–1.52) and underlying trauma pathology (OR 1.72, 95% CI 1.26–2.35), whereas an older age has been a protective factor (OR 0.90, 95% CI 0.84–0.96). Mortality in patients with *S. aureus* infection was significantly higher than in infections caused by other microorganisms, and in both cases higher than in patients without infection (34.5%, 30.3%, and 10.7%, respectively). In 208 (30.5%) patients, infections due to methicillin-resistant *S. aureus* (MRSA) were diagnosed, which in turn had increased significantly over the years ($p=0.001$). Mortality in patients with MRSA infection was 35.1% compared with 34.2% in patients with methicillin sensitive *S. aureus* infections ($p=NS$).

Conclusions: *S. aureus* was isolated in 19.8% of patients with ICU-acquired infection, particularly in relation to pneumonia in mechanically ventilated patients. Mortality in patients with *S. aureus* infection was higher than that in patients with infections due to other microorganisms and patients without infection. In contrast, differences in the outcome of patients with infections caused by methicillin-sensitive or methicillin-resistant *S. aureus* were not found.

0248 THE EFFECT OF A NURSE INITIATED SEDATION PROTOCOL ON SEDATION GOAL SCORE COMPLIANCE: AN INTERVENTION STUDY

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Background Sedation management of mechanically ventilated patients has been a problem for intensive care nurses and medical staff worldwide in recent years. An earlier prospective audit of 48 ventilated patients in our unit showed that sedation management was suboptimal. The most frequent management strategy was use of morphine and midazolam infusions and 23% of patients were physically restrained. A literature review recommended that a decrease in the routine use of sedative infusions would reduce length of ventilation, length of ICU stay and incidence of tracheostomy. The use of sedation scales, setting of a goal sedation score and implementation of a nurse initiated sedation protocol were also deemed best practice.

Objective To determine whether the use of a sedation goal score alone was as effective as using a management algorithm to maintain patients at the specified sedation goal score. Method This study was a prospective quasi experimental two phase time series design. Data were collected on 52 ventilated patients in each phase and a comparison of sedation practices for the first five ventilator days in both phases undertaken. In Phase 1 an optimal sedation goal score (Riker Sedation-Agitation Scale) was set daily by the senior intensive care medical staff and changed when clinically indicated. Nursing staff titrated intravenous infusions of analgesia and sedation with the aim of achieving the desired sedation goal score. In Phase 2, the intervention introduced was the use of an algorithm to guide management to achieve the desired goal sedation score.

Results Fifty two patients were recruited for each phase. The median age of patients was very similar in both phases (65.9 and 64.4 years) but the sample in Phase 2 contained significantly more patients at risk of over-sedation ($\chi^2 = 3.72, p=0.05$). In Phase 2, the achieved Riker score was equal to, or one score point above or below the goal Riker score for 79.3% of patient hours, in comparison with 68.2% of time in Phase 1. Most of the improvement was achieved by reduction in the level of extreme oversedation from 27% to 18% of ventilated hours ($\chi^2=117.04, p<0.001$). However, the number of hours when restraints were used increased from 12% to 17% ($\chi^2 = 37.9, p<0.001$) in Phase 2. The use of morphine and midazolam infusions decreased by 50% in Phase 2 ($\chi^2=7.54, p=0.006$ and $\chi^2=7.55, p=0.006$ respectively) and the use of fentanyl infusions increased from 8% to 17% ($\chi^2=156.8, p<0.001$).

Conclusion While use of a sedation algorithm was not more effective at maintaining patients at the exact goal sedation score, it maintained patients closer to the goal score. It was associated with a marked decrease in the number of hours that ventilated patients were extremely oversedated when compared with simply setting a sedation goal score and not using a sedation algorithm.

0249**SEDATION AS A COMPONENT OF THE CRITERIA TO PERFORM A SPONTANEOUS BREATHING TRIAL**

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Objective: To determine the importance of sedation as a component of the criteria to perform a spontaneous breathing trial in mechanically ventilated patients.

Method: Prospective study in a medical-surgical ICU of 18 beds. We included patients with mechanical ventilation longer than 48 hours who fulfilled criteria of weaning and were extubated. Demographic data, doses of sedatives, daily level of sedation, date of start mechanical ventilation, date of clinical criteria to spontaneous breathing trial, date of performance the spontaneous breathing trial, date of extubation and date of reintubation were registered. Clinical criteria of weaning were: a) Improvement or resolution of the reason for mechanical ventilation, b) PaO₂/FiO₂ >200, c) Absence of vasoactive agents, d) Core temperature < 38 °C, d) Hemoglobin > 8gr/dl.

Results: We included 171 patients that were extubated after a successful spontaneous breathing trial: 48 patients (28%) in the first attempt of spontaneous breathing trial and 123 (72%) in successive daily trials. The patients who failed in the first spontaneous breathing trial were more sedated on the day of the test than the patients who successfully passed the trial: mean in the Glasgow-Cook scale [11(4) vs. 14(3);p<0.05]. We do not observed significant differences in the level of sedation either day of the extubation or in the rate of reintubation (15% vs 19%) between the patients extubated in the first spontaneous breathing trial and the patients who failed. The median of the stay in the intensive care unit of the successfully extubated patients in the first spontaneous breathing trial was lower [7(5.14) vs 13(7.21);p<0.05].

Conclusions: We have found that in our cohort of patients, the level of sedation is a factor to evaluate in patients who fulfilled criteria to a spontaneous breathing trial.

0250**LEVEL OF SEDATION DURING THE MECHANICAL VENTILATION: COMPARISON BETWEEN MIDAZOLAM AND PROPOFOL**

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Objective: To determine the level of sedation of mechanically ventilated patients over the course of mechanical ventilation and weaning.

Methods: Observational and prospective study performed in a medical-surgical of 18 beds during 18 months. The level of sedation was determined by Glasgow sedation scale modified by Cook (G-C) that ranges from 0 to 15 points. Three levels of sedation were defined: a) High sedation: patients with GC ?7 points, b) Optimal sedation: patients with GC 8-12 points, c) Low sedation: patients with GC ?13 points. We evaluated the level of sedation during two periods: a) From the patient was intubated to the first spontaneous breathing trial was carried out, b) From the first spontaneous breathing trial to extubation. Daily dose of midazolam, propofol y morphine was registered.

Results: We included to 176 consecutive mechanically ventilated patients longer than 48 hours. We observed that the patients sedated with midazolam had a higher sedation, before spontaneous breathing trial than patients sedated with propofol (p <0.05). Patients in which propofol was administered had a lower duration of weaning than patients sedated with midazolam (median: 1 day vs. 3 days; p <0.05).

Conclusions: In our cohort, we found that the sedation with midazolam produced a higher sedation during the time of mechanical ventilation and this is associated with a longer duration of the weaning compared with the sedation with propofol.

0251**INFLUENCE OF THE SEDO-ANALGESIA ON WEANING FAILURE**

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Objective: To determine if the doses of sedatives and analgesics administered during the mechanical ventilation are related with weaning failure defined as failure of spontaneous breathing trial in two consecutive days or reintubation within 48 hours after extubation in patients who successfully passed the first spontaneous breathing trial.

Methods: Observational and prospective study in a medica-surgical ICU of 18 beds during 18 months. We included to 176 consecutive mechanically ventilated patients longer than 48 hours. Demographic data, mechanical ventilation data (period of intubation, weaning and reintubation), doses of sedatives (midazolam and propofol) and analgesics (morphine) were registered.

Results: Ninety-six patients (55%) had a successful weaning and 80 (45%) were failed (66 patients failed in two consecutive daily spontaneous breathing trial and 14 patients were reintubated). There were not differences in the median doses of sedatives and analgesics during the mechanical ventilation. The morphine administration in the previous 24 hours to spontaneous breathing trial was related to the successful test [OR=2.2(IC95%.1,1-3)]. Among the patients who received morphine we found differences in the dose received among those who had a successful extubación and those who failed (38 mgr/24h vs. 21mgr/24h ; p<0.05). We did not find differences in the level of conscience between both groups.

Conclusions: We have observed that success in the spontaneous breathing trial was related to the administration of a low dose of morphine (around 1.5 mg/h) in the previous 24 hours.

0252 ADVANTAGES OF THE NEW BIS – XP MONITORING SYSTEM IN ICU

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BACKGROUND/OBJECTIVES:

Bispectral Index (BIS) has been used to measure the level of sedation in critically ill patients. The biggest problems were the artifacts raising from facial muscle or eye movements, and the wide variability of analyzed clinical conditions. BIS-XP is a new available device (Aspect, USA), with one more frontal electrode that should minimize the movement related artifacts. The aim of our study was to compare the new and the old BIS measurement on the same patient in ICU.

METHODS:

One hundred forty critically ill patients, admitted to our intensive care unit, were studied. SAPS II and Ramsay Sedation Scale (RSS) were used to assess physiological impairment and sedation depth. Sedative agents were administered at the following maintenance doses: TCI Propofol (0.5 – 2.0 mcg/ml) and TIVA Midazolam (0.025-0.033 mg/kg/hour), to achieve a BIS Index level of 60 - 70. TIVA Remifentanyl was administrated (0.005-0.01 µg/kg/min), as needed, to ensure analgesia. Every patient was simultaneously monitored with both the BIS and the BIS-XP, along a period of 24-48 hours. BIS values were continuously recorded and their variations after painful stimuli were relieved.

RESULTS:

Both systems well correlated with the level of sedation in every single patient. The BIS-XP was able to eliminate anecdotal rise in BIS value unrelated with depth modifications. Higher variability in BIS monitoring made the range wider than in BIS-XP (coefficient of variation 88% vs 72%). After painful stimuli, BIS-XP was shown to record variations with a mean advance of 40 s (28-66 s), compare to BIS (both BIS and BIS XP have been set with the same smoothing rate). Progress in electrode fixation on the skin was observed with BIS-XP, avoiding repeated installation and allowing long-term monitoring. Sedation level oscillations, undetected by BIS, were revealed by BIS-XP value variations.

CONCLUSIONS:

The BIS-XP showed sedation monitoring improvement. The added electrode in BIS-XP was likely to improve the number validity, by eliminating patient related artifacts, though the higher sensitivity makes the BIS-XP trend less stable than the BIS one. Moreover the advance in relieving depth variations could be a useful improvement in guiding the administration of sedative-hypnotic agents to titrate adequate sedation.

0253 ASSESSING ACID-BASE DISORDERS IN PATIENTS WITH SEPTIC SHOCK: TRADITIONAL AND PHYSICOCHEMICAL APPROACHES

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Objectives: To compare two conventional approaches (based on Henderson-Hasselbalch equation and on standard base excess) with the physicochemical approach in quantifying acid base disturbances in patients with septic shock.

Design: Prospective cohort study.

Setting: Two medical-surgical intensive care unit.

Patients: A total of 213 patients were included over a 4-year period.

Interventions: None.

Measurements and Main Results: There were 125 males and 88 females with a median age of 61.5 years, 84% were in mechanical ventilation and hospital mortality rate was 64.3%. The comparison between the two traditional approaches shows discrepancies between results because of different limits of compensation in relationship of respiratory disturbances. In acidemic patients, mix acidosis was the most frequent diagnosis because many patients were mechanically ventilated. Using physicochemical approach, 99.1% of patients had hypoalbuminemia and the majority of acidemic patients (96.7%) had SID acidosis. Approximately 50% had hyperfosfatemic acidosis, dilutional acidosis and hyperchloremic acidosis and 75% had XA acidosis. The physicochemical approach detected metabolic abnormalities with surprising frequencies when HCO₃ and SBE were normal (table).

	HCO ₃ - normal (22-26 mEq/L) n=40	Standard base excess normal (-3 +3 mEq/L) n=56
Hypoalbuminemic alkalosis	40 (100%)	56 (100%)
Hyperphosphatemic acidosis	9 (22.5%)	11 (19.6%)
SID acidosis	37 (92.5%)	52 (92.9%)
Dilutional acidosis	13 (32.5%)	16 (28.6%)
Hyperchloremic acidosis	9 (22.5%)	18 (32.1%)
XA- acidosis	18 (45%)	21 (37.5%)
Concentrational alkalosis	6 (15%)	6 (10.7%)
AG > 16 mEq/L	10 (25%)	11 (19.6%)
AGcorr > 16 mEq/L	24 (62.5%)	28 (50%)

Conclusions: Acid-base disturbances are common in critically ill septic shock patients. The almost ubiquitous hypoalbuminemia confound interpretation when traditional approaches to acid-base disturbances are employed. Physicochemical approach identifies and quantifies components of complex acid-base abnormalities even when pH, HCO₃ and SBE values are normal.

0254 INTRACRANIAL PRESSURE(ICP) MONITORING IN PATIENTS WITH THALAMIC AND PUTAMINAL HEMORRHAGES. PROSPECTIVE STUDY OF INFECTIOUS COMPLICATIONS

DA Godoy

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Background and Purpose: Intracranial hypertension is considered a major contributor to mortality after brain injury, thus its control is essential. ICP monitoring has a key role in the management of intracranial hypertension. Very few studies analyzed the utility and complications rates of ICP monitoring in patients with spontaneous intracerebral hemorrhage. The aim of this study was to describe our experience with ICP devices with especial reference at infectious complications in patients with thalamic (T) or putaminal (P) hemorrhages.

Methods: Prospective epidemiological analysis of 107 ICP devices implanted in 93 patients with T or P hemorrhages during a 5 years period (1/2000-1/2005). We studied indications; localization (intraventricular vs intraparenchymal) ; type (fiberoptic vs K-30 catheter) ; mean time of monitoring , site of insertion (ICU vs surgical room) incidence of infectious complications and most common pathogens involved. Meningitis or ventriculitis were defined according

Mayhall criteria:

1. No other detectable source of central nervous system infection.
2. Negative cultures of cerebrospinal fluid (CSF) obtained at time of insertion.
3. Monitoring for more than 24 hours.
4. Positive cultures of CSF obtained by aspiration from the ventricular catheter or by lumbar puncture.

Prophylactic antibiotics not were given during monitoring.

Results: All devices were inserted by neurosurgeons. The most frequent indication for monitoring was GCS posresuscitation ≤ 8 in 48 p (44.8%); neurological deterioration (30.8%) and postoperative (19.6%). Mean time of monitoring 93.6±69.4hs. Were inserted in the ICU 48 devices (44.8%). Fiberoptic device were utilized in 39 cases (36.4%). In 7 cases (6.54%) infection was diagnosed.

The most common pathogens were staphylococcus aureus and acinetobacter calcoaceticus.

The rate of infection was significantly higher in the ventriculostomy group (p<0.001). None intraparenchymal monitoring was infected. Risk factors for infections were: not closed system, previous surgery, intraventricular blood and duration of catheterization > 5 days (p<0.002)

All documented infections except one were treated successfully.

Conclusions: In the present study, the rate of infection and risk factors are similar to previously reported.

0255 CHRONIC SUBDURAL HEMATOMA (CSDH) IN THE ELDERLY A FORGOTTEN ENTITY IN NEUROCRITICAL CARE ?

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Background and Purpose: CSDH is predominantly a disease of the elderly and is subjected to post-operative fatal and non-fatal complications in 5 to 10% of the cases. Mortality ranges from 0 to 8%, depending on the preoperative clinical status.

The aim of this study was to examine the predisposing factors and rate of neurological/neurosurgical complications. Methods: Retrospective analysis of patients with CSDH admitted during a 5 year period, at the same institution. The diagnosis of CSDH was confirmed by CT scan in all cases. 188 consecutive patients (97 men and 91 women) with CSDH were treated by burr hole craniotomy with closed system drainage and 12 patients were medically treated.

Results: Mean age of the population 75.3±31.3 years. Most frequent precipitating factors were: falls (52.5%), alcohol (33.3%), anticoagulants/antiplatelet drugs (12%) and epilepsy (4%). 34 patients (18%) suffered postoperative complications, of which 13 cases (38.2%) were acute subdural hematoma caused by incomplete homeostasis of the scalp wound and four cases (11.7%) were tension pneumocephalus, one case CSF leak with empyema (2.9%) and another one intraparenchymal hemorrhage post evacuation (2.9%).

Recurrence of hematoma was recognized in 19 patients (10.1%), in 1 to 8 weeks (3.5 ± 1.9 weeks) after the first operation.

Most patients (85.4%) had good recovery, 6% showed no change, and 2.6% worsened.

Twelve patients (6%) died.

Conclusions: The treatment of chronic subdural hematoma seems simple and effective; however, postoperative complications such as recurrence of hematoma, pneumocephalus, and infection still occur and these complications depend on surgical technique, patient's age, and preexisting morbidity.

0256 INTRACEREBRAL HEMORRHAGE (ICH) SCORE IN PATIENTS TREATED SURGICALLY

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Background and purpose: Spontaneous ICH remains a significant cause of death and disability. The role of surgical treatment continues to be controversial. There is considerable variation in the rate and indication for surgery around the world. On the other side, a clinical grading scale has many utilities: prognosis, stratification of patients and may prove useful in evaluating the effectiveness of various treatment regimens, by allowing to compare patients with similar predicted outcomes.

The objective of the study was to describe our findings when applying ICH score in patients with spontaneous ICH treated surgically.

Methods: A retrospective charts review of 220 patients admitted with a diagnosis of spontaneous ICH during two consecutive years. Only were enrolled patients treated surgically. ICH diagnosis was based in clinical picture and CT scans in all cases.

We considered "surgical treatment" the act of evacuating the hematoma whichever technique was applied to do it. Ventriculostomy was not considered surgery.

ICH Score it is composed by five independent predictors (age, Glasgow Coma Scale, (GCS), localization, volume of hemorrhage and ventricular invasion of bleeding) of 30-day mortality as described by Hemphill et al. We studied the ICH Score distribution and its relationship with the outcome evaluated through the 30-day mortality.

Cuzick's non parametric test of trend was used to assess association of the score with 30-day mortality.

Results: 220 patients were evaluated, 60 of them (27.2%) were surgically treated. 37 males (61.6%). Mean age 63.5± 13.6 years. Mean GCS posresuscitation 9.55± 3.7.

Mean volume of hemorrhage: 56.3±38.4 cc. Mean ICH Score: 2.4± 0.86.

Localization: lobar 27 p(45%); putamen 23 p(43.3%) and cerebellum 7p(11.6%).

Intraventricular extension of the hemorrhage in 35 % of the cases.

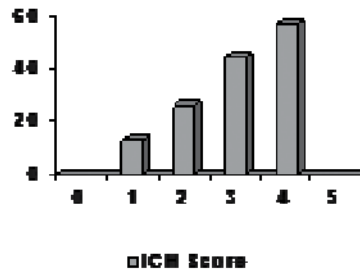
20 patients were death (33.3%). No patients were treated surgically on the extremes

of the score (0-5). The highest number of operations concentrated on medium

scores (2-3). 30 day mortality increase proportionally as punctuation in the score

increase (p< 0.001). Figure 1

Conclusions: the ICH Score may be effective in predicting 30-day mortality and could improve standardization for future clinical trials.



0257 INFECTIOUS COMPLICATIONS IN THE CHRONICALLY CRITICALLY ILL PATIENTS

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BACKGROUND/OBJECTIVES: A growing population of patients survive acute critical illness only to become chronically critically ill (CCI), with profound weakness and ongoing respiratory failure. Risk factors for infection, as use of invasive procedures and devices, malnutrition, and immunosuppression, are frequent in this group of patients. Our goal was to describe the infectious profile of this recently-defined population.

METHODS: All patients admitted between 1/8/01-1/11/04 that had a tracheostomy placed for continued ventilation (Carson S, Crit Care Clin 18, 2002) to our mixed, university-affiliated hospital ICU were considered as CCI. Epidemiological variables, use of mechanical ventilation (MV) and of central and urinary catheters were registered. We recorded the following infectious complications: ventilator-associated pneumonia (VAP), defined as clinical criteria plus a quantitative culture $\geq 10^4$ cfu/ml (BAL), $\geq 10^5$ (mini-BAL) or $\geq 10^6$ cfu/ml (tracheal aspirate); catheter-related infection (CRI), primary bacteremia (PB) and urinary tract infection (UTI) (CDC, 2001), and isolated microorganisms. Absolute and relative number of episodes and mortality registered, and also days to first episode. Results are expressed as %, mean ± SD; or median [IQR], as appropriate.

RESULTS: 81 patients were considered CCI, age 43±15; 54% male; APACHE II 21±7 and SAPS II 39±14, expected mortality 41% and 40% respectively, and observed mortality 35%.

	n patients	n episodes	n episodes/1000 days	% patients with ≥ 2 episodes	Polimicrobial infections	crude mortality
PB	59	124	16 (ICU days)	61%	27%	39%
VAP	57	93	17 (MVdays)	61%	37%	38%
UTI	50	86	6 (device days)	72%	23%	38%
CRI	16	25	8 (device days)	56%	8%	50%

Prevalent microorganisms were, in PB: Gram-negative bacilli (GNB) (63%) (45% Enterobacteriaceae); in VAP: Acinetobacter and Pseudomonas (28 and 22%); in UTI: Candida (70%); and in CRI: GNB (45%). Time to first infectious episode was for PB: 9 [7-17]; VAP: 8 [6-13]; UTI: 9 [7-16]; and for CRI: 17 [11-39].

CONCLUSIONS: primary bacteremia by GNB was the most frequent infection in CCI patients. Recurrent episodes of infections were common, with a distinctive microorganism pattern in each localization. Additionally, polymicrobial isolations were common. CRI were late events. These findings might help to identify initial empiric antimicrobial therapy. Crude mortality was high.

0258 HYPERGLYCEMIA IN NON-DIABETIC PATIENTS (NBDT) WITH SPONTANEOUS INTRACEREBRAL HEMORRHAGE (SICH) MORTALITY PREDICTOR OR METABOLIC RESPONSE TO STRESS ?

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Background and Purpose: Hyperglycemia at the time of stroke patients has been linked to a poor prognosis in populations such as cerebral ischemia, mixed ischemic or hemorrhagic strokes and in patients treated with thrombolitics drugs.

The objective of this study was determined if glycemia levels influence the outcome in NBDT with SICH.

Methods: retrospective, multicenter and observational analysis of patients admitted to 3 intensive care units during a 18 months period. The diagnosis of SICH was based on clinical picture and the CT scans in all cases. Diabetic patients were excluded. Blood glucose levels were determined for routine techniques at the following times: admission, 24, 48, 72 and 96 hours postictus. Hyperglycemia was defined when the glucose levels are ≥ 130 mgs/dl. The influence of blood glucose levels with the outcome was studied in relation to intrahospital mortality.

Statistical analysis: χ^2 , Student test, Fisher test, lineal regression and multivariate analysis.

Results: a total of 120 patients were detected, 97 patients were enrolled, because 23 of them were diabetic and were excluded. Mean age: 60 ± 1.3 years. 62 were male (63.9%).

Glasgow Coma Scale (GCS) at admission was 8.9 ± 0.4 . ICH Score was ≥ 3 in 51.5% of the population. Volume of hemorrhage: 38.3 ± 17 cc. Global mortality 50.5 % (48 patients).

Glucose levels

	Admission	24	48	72	96
Alive	137 \pm 42	129 \pm 31	113 \pm 33	113 \pm 33	116 \pm 25
Dead	184 \pm 82	149 \pm 40	161 \pm 58	161 \pm 46	158 \pm 49
p value	0.001	0.014	0.002	0.001	0.37

Multivariate Analysis (only positive results)

Variable R² p value

GCS 0.616 0.380 < 0.001

Glucose 72 hs 0.588 0.346 < 0.001

Conclusions: Hyperglycemia was associated with poor prognosis in NBDT patients with SICH. In the multivariate analysis, GCS at admission and elevated blood glucose levels at 72 hours postictus were independent predictors of intrahospital mortality.

0260 IMPLEMENTATION OF HYPOTHERMIA AFTER CARDIAC ARREST

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Background: The International Liaison Committee on Resuscitation has released the following advisory statement: unconscious adult patients with spontaneous circulation after out-of-hospital cardiac arrest (OOH-CA) should be cooled to 32-34°C for 12-24h when the initial rhythm is ventricular fibrillation (class I evidence). Such cooling may also be beneficial for other rhythms or in-hospital cardiac arrest. However, there are no guidelines or clear recommendations on the cooling methodology or precise time by which hypothermia should be induced. Hence, despite compelling data supporting its use, hypothermia has yet to be broadly incorporated into medical practice as demonstrated by a recent survey (1). We designed and implemented a protocol to induce therapeutic hypothermia in a simple and reliable manner by inexpensive and straightforward means.

Methods: Hypothermia was induced in 6 consecutive comatose patients resuscitated from OOH-CA utilizing: a) during transportation, readily available physical means which would not delay hospital admission, such as: clothing removal, ice packing and turning off ambulance heating; b) in the intensive care unit (ICU), cold (4°C) Ringer's Lactate infusion, 30 ml/kg in 30 min, and/or cold liquid gastric lavage (4°C), ice packing, and an air cooling blanket (12°C). The latter was also used to ensure that the temperature (T) was maintained within the range of 32-34°C for 24h and thereafter to actively restore normothermia (37°C). Core body T was continuously measured by a Foley catheter with a T sensor. All patients were mechanically ventilated, sedated with midazolam (0.125 mg/kg/h) and paralyzed with cisatracurium (1.5 µg/kg/min) until restoration of normothermia.

Results: In 2 patients in whom hypothermia was induced during transportation, core T at ICU admission was $35 \pm 0.5^\circ\text{C}$, whereas in the remaining patients it was $36 \pm 0.5^\circ\text{C}$. Cooling was initiated after 45±35 min and the target therapeutic range achieved within 120±15 min. Completion of diagnostic procedures and positioning of invasive monitoring devices accounted for the delay between ICU admission and cooling. All patients were stably maintained within therapeutic T range for 24h without problems. No acute adverse events related to the cooling procedure or hypothermia were noticed. However, during hypothermia all patients required IV potassium supplementation to restore the plasma levels ≥ 4 mEq/L. Moreover, close glycemic control required continuous insulin infusions (range 1-14 U/h). There were no unexplained coagulopathies. In one patient treated with tenecteplase and continuous heparin infusion, intracerebral hemorrhage was diagnosed on day 4.

Conclusions: Therapeutic mild global hypothermia can be rapidly and safely achieved and easily maintained in a reproducible manner by inexpensive and simple means.

1. Abella BS et al. Induced hypothermia is underused after resuscitation from cardiac arrest: a current practice survey. Resuscitation 2005;64:181-186.

0261 INTRAVENOUS IMMUNOGLOBULIN THERAPY ON ICU PATIENTS WITH INFLAMMATORY DEMYELINATING POLYRADICULONEUROPATHY (GUILLAIN-BARRÉ SYNDROME): EXPERIENCE IN THREE YEARS

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Objective: Our primary objective was to evaluate the clinical course and mean mechanical ventilation time and ICU stay after the administration of intravenous immunoglobulin (IVIg) on ICU patients with inflammatory demyelinating polyradiculoneuropathy.

Design: We selected all patients with inflammatory demyelinating polyradiculoneuropathy that were admitted in our ICU of a tertiary hospital university in the three last years, from January 2002 till December 2004. All patients were treated at onset of the illness and received therapy with daily infusions of pooled gamma globulin (0.4 g per kilogram per day) for five days. The Guillain-Barré syndrome diagnosis was based on established criteria.

We analyzed the clinical course and mean mechanical ventilation time and ICU stay after the administration of IVIg.

Setting: ICU in University medical center, Caracas University hospital, Central University of Venezuela.

Results: A total of, 60 patients with neuromuscular disease and who required ventilatory support were admitted to the ICU: Patients with exacerbation of Myasthenia gravis 27 (45%) Guillain-Barré syndrome 19 (31.6%), pathology others 14 (23.3%)

We present analyses of nineteen (19) patients with Guillain-Barré syndrome based on mechanical ventilation length and ICU stay: Length of mechanical ventilation was significantly higher in six patients who had developed electrophysiological evidence of axonal involvement.

More details can be seen from the table:

Conclusions:

In our setting, Guillain-Barré syndrome was the second most frequent admission cause on ICU by neuromuscular disease.

The administration of intravenous immunoglobulin (IVIg) was most beneficial in those patients with demyelinating pathology, in term of shortening the time length support ventilation and failed to show beneficial over length of mechanical ventilation in patients with severe Guillain-Barré. Additional studies are needed to confirm the benefit of Gamma globulin.

	demyelinating	Axonal
Number of patients	13	6
Mean age, years	44.54	67.33
APACHE II	6.23	8.50
Mean LOS ICU, days	12.85(9.01 to 16.68)	90.67(12.83 to 168.51)
Lengths of MV days	9.92(6.40 to 13.45)	77.17(12.9 to 141.3)
ICU mortality %	0	0

0262

NON-ENTEROPATHIC HEMOLYTIC UREMIC SYNDROME: COMPARISON WITH TYPICAL HEMOLYTIC UREMIC SYNDROME

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Introduction: Hemolytic uremic syndrome (HUS) is characterized by a triad: microangiopathic hemolytic anemia, thrombocytopenia and acute renal failure; HUS is classified as the typical epidemic or diarrhea positive (D+) and diarrhea negative, sporadically or atypical (D-). Most of the cases are associated with a prodromal diarrhea (D+) usually due to Shiga toxin (Stx)-producing Escherichia Coli (STEC) infection. The HUS D- could be secondary to infections (Streptococcus pneumoniae, Aeromonas, HIV), genetics forms (autosomal recessive and dominant), medications (Cyclosporine A, Tacrolimus, OKT3, irradiation) and idiopathic HUS (with recurrent episodes, without recurrent episodes, with complement deficiency, without complement deficiency); the HUS D- it is associated to poor prognosis of renal function.

Objective: The aim of this study is to know the presentation, treatment, mortality and evolution of the renal function one year after the diagnosis of HUS (D-) during a period of 12 years and compare this group with a contemporaneous cohort of pediatric patients with HUS (D+).

Patients and Method: Retrospective revision of the clinical records of patients diagnosed with SHU in the Pediatric Intensive Care Unit of Hospital Dr. Exequiel González Cortés (Santiago de Chile) from January 1990 to December 2003. Demographic data, clinical evolution, treatment, mortality, and evolution of the renal function one year after of the diagnosis in both groups were evaluated. For statistical analysis t-test to two tails for averages and exact binomial test with IC95% for prevalence was used. Error alpha of 5%.

Results: During the period of study 76 D+ patients and 12 patients D- were diagnosed; the general characteristics are observed in table 1.

HUS D+ and HUS D- did not show significant differences according to age. The Streptococcus pneumoniae was the most frequent agent in HUS D- (27%). Mortality was 3,95% in HUS D(+) and 8,33% in HUS D- (p=0,50). Our study does not have recurrent or genetic forms.

Conclusions: This study shows that the absence of diarrhea is a good indicator of poor renal prognosis of the HUS D-. The Streptococcus pneumoniae is the most frequent agent in HUS D-. HUS D does not have more mortality than the HUS D+.

	D (+) n= 76		D(-) n= 12		
	%	IC 95%	%	IC 95%	p value
Men	50	39,3 - 63,3	50	21 - 78,9	0,999
Anuria	56,5	46,1 - 69,8	66,7	34,8 - 90,0	0,535
Arterial Hypertension	43,4	32,0 - 54,8	58,3	25,6 - 91,1	0,335
Seizures	23,6	13,9 - 33,4	41,6	8,9 - 74,3	0,186
Therapies of renal substitution	67,1	56,2 - 77,9	75	46,2 - 99,8	0,585
Chronic renal failure to year	12,3	3,5 - 21,0	40	3,0 - 76,9	0,002*

0263

LINEZOLID VERSUS TEICOPLANIN AGAINST MULTI-RESISTANT GRAM-POSITIVE COCCI IN CRITICALLY ILL PATIENTS ADMITTED TO INTENSIVE CARE UNIT

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The use of antibiotics (AB) with activity against multi-resistant (MR) gram-positive cocci (GPC) has increased in recent years in Intensive Care Units (ICU). The use of linezolid (LZD), recently introduced in Spain, has increased since 2003.

Objectives: To determine the effectiveness of LZD vs. teicoplanin (TPN) against MR-GPC in critically ill patients with proven or suspected infection admitted to Intensive Care.

Material and methods: cohort, observational, prospective, open-label, multicenter study. The case included those who received LZD (600 mg/12 h) and were compared to those who received TPN (400 mg/24 h). Demographic information, severity of illness was assessed by the APACHE II system, infection features (forms of presentation) and mortality were evaluated.

The clinical and microbiological response was assessed in the intent-to-treat (ITT) population and in the evaluable population (EP) defined as proven etiological diagnosis of GPC and 5 day treatment \geq . A descriptive analysis was made, presenting qualitative variables in percentage form, and quantitative variables as the mean and standard deviation (SD). Comparisons between AB were made using the chi-square test for qualitative variables, and the F-ratio for quantitative variables. Statistical significance was accepted for a p-value of 0.05.

Results: 383 patients were enrolled, they were treated with LZD (109 cases) or TPN (274 cases). Mean age was 61,37 (14,6) vs. 58,8 (16,3), mean APACHE II 18,0 (6,9) vs. 19,2 (7,9), median duration of stay in ICU 26 days vs. 19 (p:NS). Infections initiated as severe sepsis-septic shock in 63,3% of the patients treated with LZD vs. 60,6% with TPN. The results of the treatment in the ITT population (n=375) were evaluated as clinical cure in 76,9% of cases in LZD group vs. 60,3% in TPN group (p=.003) and as microbiological eradication (ME) in 63,0% LZD group vs. 47,2% TPN (p=.025). The pneumonias-ITT analysis were evaluated as cure in 69,6% in LZD group vs. 47,4% in TPN group (p=.028) and as ME in 56,5% LZD vs. 32,6% TPN (p=.025). The overall infection results in the EP were classified as cure in 79,0% in the LZD group vs. 67,5% in TPN group (p:NS) and in pneumonia 69,2% LZD vs. 59,2% TPN (p:NS). Cure was achieved in 30 cases of pneumonia related to mechanical ventilation (N-MV) due to methicillin-resistant Staphylococcus aureus (MRSA): 69,2% with LZD vs. 35,3% with TPN (p=.065). Global intra-ICU mortality was 41,8% (45,9% LZD vs. 40,1% TPN p:NS).

Conclusions: Using ITT analysis, LZD was clinically and microbiologically significantly more effective than TPN. In EP and in the patients with N-MV there were no statistical differences due to MRSA, although a tendency in favor of LZD was observed.

0264

ALBUMIN FOR FLUID REPLACEMENT IN SEPTIC SHOCK: EARLY RESULTS FROM SEPSIS BRAZIL STUDY

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Background: The fluid replacement therapy in septic shock is a polemic issue, regarding the use of cristaloid vs. colloid solutions. Albumin is the more often used colloid solution. A recently published study (SAFE study) have showed no benefits in using albumin for fluid replacement in shock patients.

Objective: To analyse the septic shock subgroup in our study, regarding the use of albumin as a fluid replacement solution and its influence in mortality.

Methods: We conducted a prospective cohort study in 50 hospitals of all regions of Brazil. The patients who were admitted or who developed sepsis during the month of September, 2003 were enrolled. They were followed until the 28th day or less according to their discharge. The diagnosis were made in accordance to the criteria proposed in 1992 by ACCP/SCCM. We evaluated demographic features, APACHE II, SOFA (Sepsis-related Organ Failure Assessment) score, mortality, sources of infections, microbiology and interventions. We also recorded underlying diseases and length of stay (LOS).

Results: 2419 patients were identified and 409 (16.9%) filled the criteria of sepsis, severe sepsis or septic shock. 210 patients (51,4 %) formed the septic shock subgroup, with a mean APACHE II score of 22 and a overall mortality rate of 63,8 %. 85 patients (40,5 %) in this subgroup used albumin; 125 patients (59,5 %), did not. 51 patients (60 %) in the albumin group died; 34 (40 %), were alive on 28th day. In the non-albumin septic shock patients subgroup, 1 (0,8 %) was trasfered from the hospital and excluded from the study; 83 (66,4 %) died and 41 (32,8 %) still alive after 28 days.

When we apply the binomial probability test, the mortality rate in the albumin group is 66,93 % vs. 60 % in the non-albumin group. Using 60 % as the expected mortality rate for both subgroups (because it is the little one), the p=0,05. In the albumin subgroup we had 44 female and 41 male; in the non-albumin subgroup, 50 female and 75 male. The mean age and APACHE II score were equal in both subgroups (61,98 years old and 20,88, respectively).

Conclusions: We can see a trend towards not using albumin as a fluid replacement solution in septic shock patients, a standard therapy before. Albumin really seems not to be a protective therapy for those patients, since the mortality rate in both groups (albumin and non-albumin users) are too close (actually, when the statistical test is applied, we see a trend towards a greater mortality rate in the albumin subgroup).

0265 RISK FACTORS FOR SHORT-TERM, PERCUTANEOUSLY INSERTED, CENTRAL VENOUS CATHETER-RELATED INFECTIONS IN A PEDIATRIC INTENSIVE CARE UNIT

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Background: Infections associated with intravenous therapy and central venous catheterization are important causes of morbidity in intensive care. Most of investigations in this issue were conducted in adult settings. This study aimed at the understanding of this problem in pediatrics.

Objective: To identify risk factors for short-term, percutaneously inserted, central venous catheter-related infections in patients admitted to a pediatric intensive care unit.

Methods: Charts of patients with catheter-associated infection diagnosed by nosocomial surveillance were reviewed. A retrospective case-control study was conducted. Each case-patient was matched to one control-patient. Age, sex, weight, underlying conditions, admission reason, patients' length of stay, tracheal intubation, prior antibiotic therapy were evaluated. Scene, operator, site and order of insertion of the catheter were analyzed as well as catheter's length of stay, infusion of antibiotics, blood products and parenteral nutrition. Risk factors were defined by logistic regression analysis. Also the efficiency of Pediatric Risk of Mortality (PRISM) score to discriminate children at risk for catheter-related infection was tested by Receiver Operator Characteristic curve.

Results: In the 51 pairs case-control study, infection was associated to admission for respiratory failure, more than fifteen days of stay in the intensive care unit, tracheal intubation for more than seven days, insertion of catheter in the intensive care unit and parenteral nutrition. The insertion site, comparing femoral vein versus internal jugular vein, was not statistically significant. The following variables were identified by multivariate logistic regression analysis: catheter other than first ($p=0,014$) and length of stay ($p=0,0013$) as risk factors; and use of antibiotics ($p=0,0005$) as a protective factor. PRISM score did not discriminate patients with risk for catheter-related infection.

Conclusions: Central venous catheter should be withdrawn as soon as possible. Femoral vein catheterization remains a good choice in children, as its risk of infection is comparable to internal jugular vein catheterization. New technologies minimizing the emergence of resistant bacteria will allow the investigation of antibiotics' prophylactic activity against central venous catheter-related infection. A score including variables related to the development of nosocomial bloodstream infection, like the use of invasive devices, should be available to predict the risk of central venous catheter-related infection in children.

0266 UNDERSTANDING LUNG FUNCTION AND REMODELING BY A NOVEL EXPERIMENTAL MODEL OF SEVERE ASTHMA

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Background: Severe asthma afflicts a small percentage (likely <5%) of the asthma population. However, as these patients remain difficult to treat and prone to severe exacerbations, they contribute disproportionately to the overall costs of asthma. Unlike many other diseases, the pathology of asthma, and severe asthma in particular, remains poorly understood, primarily due to limitations in tissue availability. Despite the increased understanding to the nature of the disease in general, there are controversies about pathophysiology.

Objectives: The aim of the study is to develop a murine model of severe and fatal asthma that could mimic the lung function and histological changes characteristic of human asthma as closely as possible. For this purpose in vivo (airway resistance, viscoelastic pressure, and static elastance) and in vitro (tissue elastance, resistance, and hysteresivity) respiratory mechanics, lung histology (light and electron microscopy), quantitative analysis of collagen and elastic fiber in airway and lung parenchyma, and cellular profiles in bronchoalveolar lavage fluid (BALF) were evaluated.

Methods: Eighteen BALB/c mice were randomly divided into three groups. In severe asthma group (SA), mice were sensitized with ovalbumin (10 µg in 0.1 ml sterile saline) on each of 7 alternate days. After day 40 they were challenged by intratracheal instillations of ovalbumin (40 µg in 20 µl sterile saline) on each of 3 days, each 3 days apart. In fatal asthma group (FA), the animals were submitted to the same protocol but methacholine (1 mg/ml) was intravenously injected at the moment of the experiment. The control group received saline using the same protocol.

Results: Resistive and viscoelastic pressure, static elastance, tissue resistance and elastance increased progressively from control to severe and fatal asthma. Both asthma groups showed a marked cellular infiltration with eosinophils and neutrophils in lung tissue, large and small airways, atelectasis, hypertrophy and hyperplasia of bronchial smooth muscle, thickening of the basement membrane, myofibroblast hyperplasia, and intense fibrogenesis in large and small airways and lung parenchyma. The total number of cells, mainly eosinophils and neutrophils in the BALF, was significantly higher in SA and FA groups in comparison to C group.

Conclusion: These models of severe and fatal asthma showed changes in lung mechanics and in airway and lung parenchyma histology similar to those observed in human severe asthma. Thus, these animal models of asthma provide opportunities to explore basic issues of susceptibility, mechanism, and risk, albeit with the limitations of extrapolation.

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0267 EVALUATION OF THE DECISIONAL CAPACITY ABOUT END OF LIFE OF THE PATIENTS DURING THEIR STAY IN INTENSIVE CARE UNIT

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BACKGROUND: Nowadays, death in the Intensive Care Units (ICU) frequently follows limitation of life supporting therapies. In the best of scenarios, this decision is depend on the patient. However, most patients lack their decisional capacity due the drugs they are receiving or their underlying disease and the knowledge of their preference is often elusive. In our country the majority of patients have not done a living will that reflexes their desires. Moreover, they don't discuss this subject before their admission in ICU, neither with their families nor with the physician. Then, the bioethical principle of autonomy became awkward to honor.

The assessment of ability to discuss vital themes is subjective. Using a sedation agitation score provides an objective tool to evaluation the patient response to therapeutics interventions and the capacity to communicate consistently. We selected the Riker Sedation-Agitation Scale (SAS) already tested in ICU patients. By the scale we could identified a level in which the patient could communicate properly.

We wanted to know how many patients in the end-of-life were able to make vital decisions during their stay in ICU.

OBJECTIVE: Evaluation of the patient's decisional capacity about the withdrawal or withhold the treatment during their stay in ICU

METHODS: Design: prospective, descriptive, observational

Population: patients admitted in ICU

Methods: We collected gender, age, outcome. Conscience level or awareness was measure by the SAS. This score provides a symmetric approach to grading patient behavior with three severity levels for sedation and three for agitation. Only in the four level the patient is awake, calm and cooperative, therefore it could take part in the discussion about the withdraw or withhold of its treatment

RESULTS: We included 149 patients (p) with average age of 55.7 years (R: 14-93). There were 50.4 % males and 49.6 females. The global mortality was 28.1 % (42p). The 61.7 % (92 p) was a level four in the SAS. The 92.3% of the patients in this level didn't need consider vital decision because they leave the unit alive. The death patients had the probability of discuss the treatment in the end of life. From them, 21.4% had a level four in some time during their stay, alert and communicative but still they had been entubated. Only one patient (2.3 %) was not with endotracheal tube to allow an adequate discussion of their treatment.

CONCLUSION: Within the patients admitted in the unit in whom existed the probability of limitation of life support only one patient (2.3%) was alert and communicative to allow a proper discuss of the withdrawing or withholding of his treatment. The bioethical principle of autonomy during their stay in ICU is difficult to accomplish.

The patients in the Latin culture don't use to talk about their diagnosis and treatment with the relatives, so surrogate intervention is limited and medical intervention become relevant. A "shared" approach to end-of-life decision is imperative laying the responsibility between the caregiver team and the patient surrogates