Paediatric Intensive Care

0-096 NON-RESPIRATORY PELOD-2 SCORE IS A GOOD PREDICTOR OF MORTALITY IN CHILDREN WITH ACUTE RESPIRATORY FAILURE

S Leteurtre, 1D Duhamel, 1V Delken, 1C Le Reun, 1J Lacroix, 1F Leclerc, 1GFRUP, 5PICU, CHRU de Lille, Lille, France; 2Department of Biostatistics, CHRU de Lille, Lille Cedex, France; 3PICU, Sainte Justine Hospital, Montréal, Canada; 4Paris, GFRUP: Groupe Francophone de Réanimation Et Urgences Pédiatriques, France

Background and aim: Multiple organ dysfunction, not respiratory failure, is the major cause of death in children with ALI or ARDS. This study was undertaken to estimate the predictive value of death of the non-respiratory Paediatric Logistic Organ Dysfunction (PELOD)-2 (NRespPELOD-2) in children with acute respiratory failure (ARF).

Methods: Analysis of the database of the recently published PELOD-2. All consecutive children (excluding neonates) admitted to 9 PICU in France and Belgium (June 2006–October 2007) and having ARF. We prospectively collected data on variables considered for the PELOD-2 score during PICU stay: days 1, 2, 5, 8, 12, 16 and 18, plus PICU discharge. For each variable of the PELOD-2 score, the most abnormal value observed during time points was collected. Outcome was vital status at PICU discharge. We used AUCs to estimate the discrimination and Hosmer-Lemeshow goodness-of-fit tests to estimate calibration of the PELOD-2 and the NRespPELOD-2 scores, with correction for the optimism bias using a bootstrap resampling method.

Results: We included 1572 patients (median age: 20.6 months; mortality: 9.5%). Discrimination of the PELOD-2 and the NRespPELOD-2 was excellent (AUC=0.93 and 0.92, respectively) and calibration was good (p = 0.45 and 0.27, respectively). The four NResp organ dysfunctions were closely related to the risk of mortality (p < 0.001).

Conclusions: Our study demonstrates that the NRespPELOD-2 score of the entire PICU stay is highly predictive of death in children with ARF of whom 94.3% were invasively ventilated. It could represent the non-respiratory organ failure definition tool claimed by the international experts on paediatric ARDS.

Pharmacology I

0-098 POTENTIALLY HARMFUL EXCIPIENTS IN MEDICINES PRESCRIBED IN NEONATAL INTENSIVE CARE UNITS (NICU) – PRODUCT SUBSTITUTION AS A WAY FORWARD

G Nelles, 1E Lutsar, 1H Varendi, 1J Lass, 1MA Turner, 1T Metsovaht, 1Neonatal Unit, Children’s Clinic of Tartu University Hospital, Tartu, Estonia; 2Department of Microbiology, Tartu University, Tartu, Estonia; 3Pharmacy Department, Tartu University Hospital, Tartu, Estonia; 4Neonatal Unit, Liverpool Women’s Hospital, Liverpool, UK; 5Paediatric Intensive Care Unit, Tartu University Hospital, Tartu, Estonia

Background: Excipients are essential for many medicines. Some have been associated with significant consequences in neonates. We aimed to identify substitution possibilities among medicines used in European neonates in order to minimise the administration of potentially harmful excipients of interest (EOI).

Methods: A 3-day survey recording all medicines prescribed to neonates was performed in European NICUs. Based on existing toxicity data in neonates the EOI included parabens, polysorbate 80, propylene glycol, benzoates, saccharin sodium, sorbitol,