

the PICU of the regional university hospital of Caen between January and December 2010 (PICU group). Planned admissions from a treating PICU physician and transfers from neonatology were excluded.

Results 118 AICU stays were compared to 346 PICU stays. Mean age was higher in the AICU group (16.2 ± 1.8 vs 6.5 ± 6.4 , $p < 0.001$). The AICU group were subject to more invasive monitoring (4.2% vs 0.3%, $p = 0.005$), intubation (34.8% vs 25.1%, $p = 0.044$) and vasoactive agents (12.7% vs 6.7%, $p = 0.035$). When controlled for age (13–18 years) no statistical difference was observed. Discharge planning was better in the PICU group ($p < 0.001$).

Conclusion Given that most paediatric AICU patients were teenagers, the medical care was comparable in between AICU and PICU. Follow-up care, however, was better planned for PICU patients.

PO-0315 WITHDRAWN

PO-0316 INCIDENCE OF ACUTE KIDNEY INJURY IN NEONATES UNDERGOING EXTRA-CORPOREAL MEMBRANE OXYGENATION

¹SLN Clarke, ²C Westrope. ¹Paediatrics, University of Bristol, Bristol, UK; ²Paediatric Intensive Care, Leicester Royal Infirmary, Leicester, UK

10.1136/archdischild-2014-307384.965

Background and aims The incidence of AKI in critically ill neonates is estimated at 6–24% with 10–61% mortality. Whilst the incidence of AKI in neonates undergoing ECMO is unknown, its presence independently predicts mortality. We audited the incidence of AKI in neonates on ECMO in our centre against the published incidence of AKI in a similar cohort of neonates undergoing congenital cardiac disease surgery with cardiac bypass.

Methods All neonates who underwent ECMO due to respiratory disease in one year were included ($n = 24$). The case notes, fluid balance charts and laboratory data were reviewed. AKI was graded based on published RIFLE criteria.

Results Twenty five percent of neonates developed AKI; 1 (4%), 2 (8%) and 3 (13%) were graded as “Risk”, “Injury” and “Failure” respectively based on creatinine rise alone. If reduced urine output and rise in creatinine were used the number of infants with AKI was 9 (38%). The number of neonates with “Risk”, “Injury” and “Failure” was 3 (13%), 2 (8%) and 4 (17%) respectively.

Conclusions The incidence of AKI in our cohort was lower than the published cohort used as the audit standard. Nevertheless, there was a higher proportion of more severe AKI in our cohort. This may be accounted for by the emergent rather than elective admissions of our cohort. Recent data suggests a threshold of <0.5 mL/kg/hr is too low for the neonatal population, thus our data may represent an underestimate. Nevertheless this data illustrates the need for close monitoring of renal function and urine output.

PO-0317 MALIGNANT PERTUSSIS IN INFANTS: FACTORS ASSOCIATED WITH A POOR OUTCOME

¹M Coquaz-Garoudet, ¹R Pouyau, ¹D Ploin, ²JF Baleine, ³B Boeuf, ⁴H Patural, ⁵A Millet, ⁶M Labenne, ⁷R Viallet, ⁸D Pinquier, ⁹M Cotillon, ⁹J Rambaud, ⁹E Javouhey. ¹Anesthésie Et Réanimation Pédiatrique, Hôpital Femme Mère Enfant, Lyon, France; ²Pédiatrie

Néonatale Et Réanimation, Hôpital Arnaud de Villeneuve, Montpellier, France; ³Réanimation Pédiatrique, Chu Estaing, Clermont-Ferrand, France; ⁴Réanimation Néonatale Et Pédiatrique, Pôle Mère-Enfant Hôpital Nord, Saint-Etienne, France; ⁵Réanimation Pédiatrique, Hôpital Couple Enfant, Grenoble, France; ⁶Service D'anesthésie Réanimation Pédiatrique, Hôpital de La Timone, Marseille, France; ⁷Service D'anesthésie Réanimation Pédiatrique, Hôpital Nord, Marseille, France; ⁸Pédiatrie Néonatale Et Réanimation, Pôle Femme Mère Enfant, Rouen, France; ⁹Réanimation Néonatale Pédiatrique, Hôpital Trousseau, Paris, France

10.1136/archdischild-2014-307384.966

Background Malignant pertussis (MP) affects young infants and is characterised by respiratory distress, associated with permanent tachycardia and hyperleukocytosis up to $50 \times 10^9 \text{L}^{-1}$ leading to multiple organ failure and death in 75% of cases. Leukodepletion aims to improve prognosis.

Method This study aimed at identifying factors associated with death and evaluating the impact of treatment on the outcome. We reviewed the records of the infants ≤ 3 months, hospitalised in 7 French paediatric intensive care units (PICUs) from January 1, 2008 to November 13, 2013 with a diagnosis of pertussis, admitted for respiratory distress, with or without white blood cell count (WBCC) $>50 \times 10^9 \text{L}^{-1}$. Treatment modalities (Leukodepletion and/or ECMO) were compared to Rowland's proposition (Rowlands *et al*, paediatrics 2010).

Results Twenty three infants were included, 17 were intubated. Nine of 23 (40%) died: they presented more frequently cardiovascular failure (100% vs 36%, $p = 0.003$) and pulmonary hypertension (PHT) (100% vs 29%, $p = 0.002$) than survivors. Fatal cases presented CRP level at emergency >20 mg/l (85% vs 14%, $p = 0.003$) and increased their WBCC three times faster than survivors ($15 \times 10^9 \text{L}^{-1} \text{pd}$ vs $5 \times 10^9 \text{L}^{-1} \text{pd}$, $p = 0.013$). Leukodepletion was performed in 10 cases (43%), 7 survived. For 15/23 patients, the treatment followed Rowland's protocol, resulting in a 73% survival rate (11/15).

Conclusion A CRP level over 20 mg/l at hospital admission and an increase of WBCC $>15 \times 10^9 \text{L}^{-1} \text{pd}$ were associated with death. Early determination of CRP, early monitoring of WBCC every 12h, and determination of PHT by echo should be helpful in predicting the prognosis of MP and initiating Leukodepletion.

PO-0318 TEAM-FAMILY CONFLICTS IN DECISIONS TO FORGO LIFE-SUSTAINING TREATMENT (LST) IN PICU

B Dalichoux, F Bordet, E Javouhey. Réanimation Pédiatrique, Hôpital Femme-Mère-Enfant, Lyon, France

10.1136/archdischild-2014-307384.967

Background and aims Many sources of conflict exist in intensive care units between family's members, team-family, or within the ICU team. These conflicts are frequent (48%) in adults ICU, and most are in relation to end-of-life decisions especially with decisions to forgo LST. In PICU, no study has previously reported the prevalence, characteristics and effects of these conflicts.

Methods We conducted a retrospective observational study of children admitted to PICU of Lyon, France, for whom a meeting to forgo LST had been held between October 1st 2010 and February 28th 2014. We search in medical record if conflict or disagreement were noticed and we interviewed the referent physician about conflict. We distinguished simple disagreement (quickly resolved), continuing disagreement (parents refuse recommendations with communication still possible), and conflict (communication impossible).