

Applying LRAR would have reduced follow-up resulting in cost-savings of £8,068; in total £9,718.

Conclusion Implementing the LRAR in children presenting with AI in the UK is safe from a clinical view point; will reduce radiography and follow-up, resulting in significant cost-savings.

PS-147 **ULTRASOUND CARDIAC OUTPUT MONITORING (USCOM) IN MECHANICALLY VENTILATED CRITICALLY ILL CHILDREN**

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Background and aims Haemodynamic monitoring plays an important role in the management of critically ill patients. The goal of this study was to evaluate haemodynamic changes within first 48 h after initiation of mechanical ventilation (MV).

Methods Critically ill children were included and divided into two groups according to the indication for MV. Group A ventilated for pulmonary pathology (P), group B ventilated for non pulmonary pathology (NP). Noninvasive haemodynamic monitoring (USCOM) was used in both groups after the initiation of MV (Time 1) and at 6, 12 and 48 h intervals (Time 2, 3, 4). Parameters such as CI, SVRI, SVI, SBP and DBP were analysed. Strategies of protective MV were applied in both groups.

Results Group A included 36 children, mean age 44 months. Group B included 13 children, mean age 58 months. The comparisons within the groups and between the groups are presented in Table 1.

Abstract PS-147 Table 1

	Pulmonary group - P			Non pulmonary group - NP		
	Time 1	Time 4	comparison	Time 1	Time 4	comparison
CI	4.30 ± 1.25	4.09 ± 1.08	NS	4.33 ± 1.57	3.59 ± 1.03	NS
SVRI	1193 ± 592	1321 ± 557	NS	1050 ± 193	1607 ± 570	p < 0.005
SVI	34 ± 11	35 ± 11	NS	36 ± 12	37 ± 12	NS
SBP	90 ± 21	102 ± 25	p < 0.0142	87 ± 21	102 ± 19	p < 0.0251
DBP	52 ± 15	56 ± 17	NS	47 ± 15	55 ± 17	NS

Conclusions SVRI increased during first 48 h of ventilation in NP group, SBP increased in both groups. No other clinically significant haemodynamic changes in either group were found.

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PS-148 **PRE-HOSPITAL TRANSPORT PRACTICES PREVALENT AMONG CHILDREN REQUIRING PICU ADMISSION IN A TERTIARY CARE CENTRE OF A DEVELOPING COUNTRY**

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Background and aims While specially trained paediatric transport teams are firmly in place in the developed nations for transporting the critically ill to the paediatric intensive care unit (PICU), the same is not true for the resource restricted ones. Although well known, this finding is underreported. The aim of our study was to evaluate the pre-hospital transport practices of those requiring PICU admission and their subsequent clinical course.

Methods We collected information on the pre-hospital transport factors of children requiring PICU admission at presentation to our paediatric emergency department (PED), over a period of 6 months (Jan–Jun 2013) and recorded their outcomes. The study was approved by the IEC.

Results A total of 319 patients presented to the PED during the study period. Fifty four children (17%) required PICU admission. Majority (60%) were males. Septic shock (48%) was the commonest admitting diagnosis. Only 2 patients referred were transported by ambulance (unaccompanied). Majority (35, 65%) reached the hospital by public transport systems such as auto rickshaw and bus. The median PIM2 probability was 56%. Of those admitted, 18% needed mechanical ventilation, and 46%, inotropic support within the first hour. Sixteen children (30%) died during PICU stay.

Conclusions There is an urgent need to develop and integrate paediatric retrieval teams into the health care system of our country. Special telemedicine facility or call centres could be set up for this purpose so that the information could reach these teams and the patient could be transferred in a timely and appropriate manner to the nearest PICU available.

PS-148a **DOES OBSTRUCTIVE SLEEP APNEA CONTRIBUTE TO ELEVATED INTRACRANIAL PRESSURE IN CHILDREN WITH SYNDROMIC CRANIOSYNOSTOSIS? A PROSPECTIVE COHORT STUDY**

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Background and aims Children with syndromic or complex craniosynostosis have a prevalence of 68% of obstructive sleep apnea (OSA), which has been associated with an increased risk for developing elevated intracranial pressure (ICP). The objective of this study was to evaluate how often and to what extent OSA increases the risk of elevated ICP in patients with syndromic and complex craniosynostosis and to prospectively evaluate our current clinical treatment protocol.

Methods A prospective observational cohort study of patients with syndromic or complex craniosynostosis treated at the Sophia Children's Hospital, started in January 1st 2007. All patients received repeated sleep studies and fundoscopy (to evaluate papilledema as proxy for elevated ICP), according to a standardised protocol.

Results Sixty-two patients underwent full analysis, with a mean age at time of latest follow-up of 6.0 years. Mean age at first presentation of papilledema was 1.9 years (range 0.4–6.0). Twenty-three of 62 patients (37.1%) had papilledema, of whom 13 (21.0%) pre-operative. Thirty-nine of 62 (62.9%) patients had OSA. Compared to patients without OSA, papilledema was not more frequently present in patients with mild or moderate OSA. However, patients with severe OSA had pre-operatively significantly more often papilledema (p = 0.015).