PO-0327 IS THE GLASGOW COMA SCALE SCORE IN THE EMERGENCY DEPARTMENT LOWER DURING THE NIGHT?

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Background The body clock may through stimulation of melatonin secretion influence the Glasgow Coma Scale Score. The aim of this study was to investigate whether the time of presentation of children in the emergency department influences Glasgow Coma Scale scores.

Methods Retrospective review of 6649 records of children presenting to an Emergency Department in a District General Hospital from August to December 2012 with comparison of patients with a GCS of <15 seen during daytime (0700 to 1900) and night time (1900 to 0700) with regards to diagnosis, disease severity (Paediatric Early Warning Score), Glasgow Coma Scale score, age, gender and ethnic group.

Results Out of 4034 patients attending during daytime 25 had a GCS <15 and 34 out of 2592 during night time (p = 0.005). There was no difference in age, gender, ethnicity or disease severity between groups of patients attending during day or night time. The most common condition presenting with reduced GCS both during day and night time in children were seizures (31.6%) followed by a viral respiratory tract infection (16.6%), miscellaneous other infections (20%), trauma (13.3%) and other miscellaneous conditions (18.3%). The only group of diseases with significant difference in frequency between groups were viral respiratory tract infections, which were significantly more common in children presenting with low GCS during the night (p = .0017).

Conclusion Presentation of children with low GCS was more common during the night. Children with reduced GCS and viral respiratory tract infections presented more frequently during the night.

PO-0328 MONITORING OF SYSTEMIC HAEMODYNAMIC (MSH) IN CHILDREN WITH SEVERE TRAUMA BRAIN INJURY IN PAEDIATRIC INTENSIVE CARE UNIT (PICU)

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Background and aims SPTBI is frequently associated to acute circulatory failure (hypovolemia, vasoplegia, myocardial depression or tamponed). The haemodynamic systemic management objective in SPTBI is an haemodynamic stability, normal cardiac output, and assessment of blood volume status. In this way MSH has an important role to guide the management (volume expansion, vasopressor or inotrope).

The aim of this study is to improve the interest of systematically integration of MSH for management of cerebral perfusion pressure (CPP).

Method This prospective study was conducted between April 2013 and April 2014. For each patient with cerebral systemic oligohemia, alteration of the CPP, acute circulatory failure, the assessment of the cardiac output, mean artery pressure, blood volume status were obtained by : echocardiography, estimated continuous cardiac output (esCCO), Oesophageal doppler, NIBP.

Results on a total of 20 patients with SPTBI, 41 measures were realised.

- Cardiac Index was normal (< 3 l/min/m²) in13 patients with cerebral systemic oligohemia in transcranial doppler (TCD).
- Cardiac Index was abnormal < 3 l/min/m² in 7 patients.
- All patients was treated: o Noradrenaline was introduced in 14 patients with objective of CPP, 2 of them had a profound vasoplegia « DAP < 40 mmHg « o Volume expansion in 18 patients « fluid responsiveness based on the respiratory variation aortic flow peak velocity, SV, and inferior vena cava »

Conclusion Assessment of CO, blood volume status, vascular resistance based on a systemic monitoring allows the optimisation of PCC evaluated with TCD.

PO-0329 MULTIMODAL HAEMODYNAMIC MONITORING (HSM) FOR THE MANAGEMENT OF ACUTE CIRCULATORY FAILURE (ACF) IN PAEDIATRIC INTENSIVE CARE UNIT (PICU)

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