

Abstract PO-0286 Table 1

Interventions	Percentage %
Intubated by AT	86 %
Intubated by NWTS	11.1%
Intubated by COCH Neonatal team	2.7%
Nasal intubations by COCH	22.5%
Endotracheal tube (ET) repositioned by NWTS	16.1%
ET repositioned by AT	6.4%
Central venous lines by COCH	43%
Central venous lines by NWTS	57%

PO-0286 **ROLE OF THE ANAESTHETIC TEAM IN PAEDIATRIC CRITICAL CARE TRANSFERS IN THE NORTH WEST OF UK**

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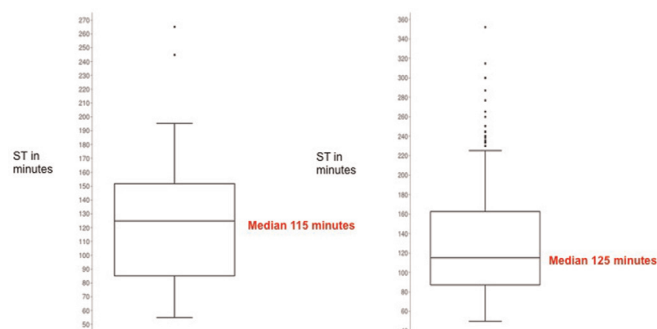
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Background and aims Critically ill children in the UK are stabilised in the district general hospitals (DGH) and transferred to tertiary paediatric intensive care units (PICU). The North West and North Wales Paediatric transport Service (NWTS) is a specialist paediatric retrieval service, which transports sick children and also provides expert advice to DGH staff. However, in the DGHs, anaesthetic teams (AT) provide the initial resuscitation and undertake the time-critical transfers. Countess of Chester hospital (COCH) is one of the 29 DGHs in the north-west. The aim of this project was to review the role of AT in resuscitation, stabilisation and transfer of critically ill children from COCH to PICUs.

Methods Retrospective review of patient notes, NWTS- transport documentation and discharge summaries of the patients at tertiary PICUs over 2.5 years between November 2010 to August 2013.

Results Of the 43 transfers from COCH 11 transfers were undertaken by AT. Major proportion of interventions were performed by the AT and the NWTS stabilisation time at COCH was similar to that in the rest of the DGHs. (See Table and Figure).

Stabilisation Times (ST in mins) by NWTS at COCH vs ST in mins by NWTS for the rest of the north west



Abstract PO-0286 Figure 1

Conclusions Anaesthetic teams at DGH play a significant role in the resuscitation, stabilisation and transfer of critically ill children. Effective communication with the transport service and shared protocols enhance the performance of the DGH staff.

PO-0287 **PAEDIATRIC EMERGENCY DEPARTMENT VISITS ON A LEVEL II HOSPITAL IN PORTUGAL**

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Background and aims Nowadays in Portugal we are witnessing an excessive demand for differentiated health services which generates misuse of resources, increase in costs and a tendency of rupture to the system itself. We aimed to characterise a paediatric emergency department (PED)'s use and to define whether there is unjustified demand for health care.

Methods Retrospective cross sectional analysis of emergency episodes during one year (2012) on a level II PED in Barreiro, Portugal. Episodes were defined as unjustified when classified as standard and non-urgent by Manchester Triage. Demographic and clinical data were analysed. Adequate statistical analysis was performed; level of significance $p < 0.05$.

Results We analysed 37,099 PED episodes. Most patients were male (53%), and There was a significant correlation between PED's unjustified use and both week's day and day's hour: episodes occurred mostly at weekends ($p < 0.05$).

Conclusion There was an excessive use of the PED by non-emergent episodes in our study. It's crucial to create measures to contain this phenomenon, namely promoting and strengthening the primary health care, the chain of care and referral network, as well as increase the population's health literacy.

PO-0288 **HYPERFERRITINEMIA IN MANAGING PERINATAL HEMOCHROMATOSIS: POSITIVE PREDICTIVE VALUE AND EFFECTIVENESS**

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Introduction Ferritin is commonly used to estimate iron stores – but its strength also can diagnose rarer and more severe pathologies and then guide the emergency treatment

Material and method A little girl of 45 days is admitted for pallor, fatigue and failure to gain weight. Laboratory tests reveal a rapidly worsening hepatitis with growing signs of liver failure. Her Alpha -fetoprotein is 64,000 IU while serum ferritin > 2000 ng/ml. The most likely diagnosis, neonatal hemochromatosis, required to initiate combination therapy with vitamin E and N-acetylcysteine, NAC. After 2 months of treatment, there are no more stigmata of liver failure; AFP is 3200 IU and ferritin = 632 ng/ml.

Results and discussion This case illustrate, among others, the outstanding interests of ferritin dosage in such situations with high morbidity/mortality, requiring a battery of specialised explorations that are not always accessible in ressource limited areas.

In fact, iron overload is characteristic of this immune-mediated condition with specific MRI findings in salivary glands and liver.

Gathering laboratory results to history and clinical examination would improve the sensibility and specificity of ferritinemia for this highly dangerous disease and allow decisive therapeutic decisions.

Conclusion In addition to its "traditional" interest in deficits or iron overload, ferritin may offer some beneficial major diagnostic benefits for life threatening cases like perinatal hemochromatosis.

PO-0289 IT TAKES MORE THAN EIGHT DAYS BEFORE TINZAPARIN LEADS TO ADEQUATE ANTI-XA LEVELS IN PAEDIATRIC INTENSIVE CARE PATIENTS FOLLOWING CONGENITAL HEART SURGERY

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Objective Tinzaparin is used in paediatric intensive care (PICU) following cardiac surgery as a bridge to oral anticoagulation. Low Molecular Weight Heparins (LMWH), such as Tinzaparin are thought to lead to immediate anticoagulation with adequate anti-Xa levels 2–4 hours after the first dose. Dosing following international guidelines, is age dependent and guided by anti-Xa levels. However, little is known about LMWH dosing in PICU patients. We conducted a retrospective study to evaluate tinzaparin dosing.

Methods We retrospectively analysed Tinzaparin doses and anti-Xa levels from all children admitted to PICU (January 2012–December 2013). Hospital policy is to determine the first aXa level after 3–4 doses and 4 h post dose, targeting 0.5–1.5 IU/ml.

Results There were 31 episodes of newly started Tinzaparin in 28 children. Mean age was 57 (SD±62) months. First anti-Xa levels were determined at 3.45 (SD±1.9; range 1–12) days after the first dose and were sub therapeutic in 25 of 31 (81%): mean 0.33 (SD± 0.15) IU/ml. Tinzarin dose was increased in 12/25 (48%) patients and further anti-Xa levels were determined. In 15 patients further levels were not available due to transition to vit K antagonists or PICU discharge. Therapeutic anti-Xa levels (0.69 (SD± 0.27) IU/ml), were eventually reached in PICU in 16 patients after a mean of 8.8 (SD± 7.1 range 3–30) days.

Conclusion Tinzaparin dosing in PICU patients only leads to target anti-Xa levels after more than 8 days. Levels need to be determined after the first dose so that doses can be adequately increased.

PO-0290 SEIZURES IN A PAEDIATRIC INTENSIVE CARE UNIT: A PROSPECTIVE STUDY

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Purpose To determine the aetiology and clinical features of seizures in critically ill children admitted to paediatric intensive care unit (PICU).

Methods A total of 203 children were admitted from June to November 2013, 45 patients were eligible. Age ranged from 2

months to 19 years. Seizures were organised as epileptic or non-epileptic. Demographic data, PRISM III, GCS, risk factors, co-existent diagnosis, medications administered before admission, type and duration of seizures, drugs used, requirement and duration of mechanical ventilation, length of stay and neuroimaging findings were collected prospectively.

Results The male-female ratio was 0.8. Mean age was 5.4. The most common causes of seizures were non-epileptic. Most frequent coexistent diagnosis was infectious diseases and 53.3% had recurrent seizures. Medications were administered to 51.1% of the patients before admission. Seizures were focal in 21 (46.7%), generalised in 11 (24.4%) and 13 (28.9%) had status epilepticus. Intravenous midazolam was first line therapy in 48.9%. Non-epileptic seizures were usually new onset and duration was shorter. Epileptic seizures tended to be recurrent and likely to progress to status epilepticus. However, type of seizures didn't change severity of the disease. Also, laboratory test results, medications administered before admission, requirement and duration of ventilation, mortality and length of stay was not significant between epileptic/non-epileptic patients.

Conclusion Seizures in critically ill children that may evolve into status epilepticus is an important condition requiring attention regardless of cause. Intensified educational programs for PICU physicians and international guidelines are necessary for a more efficient approach to children with seizures.

PO-0291 BRAIN DEATH AND ORGAN DONATION OF CHILDREN

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Objective To define the demographic characteristics, clinical features and outcome of patients with brain death and to emphasise the importance of organ donation in children.

Setting Centre I: 14-bed, tertiary care Paediatric Intensive Care Unit (PICU).

Centre II: Tertiary care Intensive Care Unit (ICU), Trauma centre.

Methods Data were collected from September 2009 to October 2012 retrospectively. Twenty children who were diagnosed as brain death were included. Data including demographics, disease leading to brain death, duration of brain death evaluation, ancillary tests to confirm the brain death, complications and outcome, duration of hospitalisation, status of survival and organ donation were collected for statistical evaluation.

Results The mean age were 6.2 ± 5.3 (median:3.8) years. Male/female ratio was 1.85. Disease leading to brain death was traumatic brain injury in 11(55%) patients. The mean duration of brain death evaluation was 6.7 ± 6.4 (median:4) and 1.7 ± 1 (median:1) days in Centres I and II respectively. The duration of hospitalisation was 12.5 ± 10.7 (median:7.5) days. Electroencefalography (EEG) was applied in 18(90%) patients. Complications included diabetes incipitus in 9(45%) cases. Duration of survival was 9.8 ± 9.4 (median:6) days. One of the patients' parents give consent to organ donation in Centre I while 4 parents accepted organ donation in Centre II. The study demonstrated that duration of brain death evaluation in Centre I was longer when compared to Centre II (p < 0.05). There was no difference between centres in obtaining concepts of organ