

Abstract PO-0295 Table 1 Growth data terms vs preterms

	Preterms < 36 w	Full-terms > 37 w
Number	n = 60	n = 155
Gestational age	31.5 +/- 2.2	40 +/- 1.5
Weight (g)	1584 +/- 451	3151 +/- 597 *
Length (cm)	41.4 +/- 5	50.7 +/- 3.5 *
BMI	9 +/- 1.1	12.2 +/- 2 *
Mother wt (kg)	59.8 +/- 16.2	66.3 +/- 18 *
Head Circumf. (cm)	28.9 +/- 2.8	34 +/- 2 *
Total Calcium	2.11 +/- 0.2	2.31 +/- 0.16
Hypocalcemia %	3%	3%
Hemoglobin (g/dl)	16.4 +/- 2.5	15.7 +/- 2.45
Hematocrit	51.4 +/- 9.2 *	46.9 +/- 7.5
Creatinine	58.8 +/- 15.4	66 +/- 16.8*

*p < 0.05 term versus preterm group.

PO-0296 PREVALENCE OF INTERCURRENT ILLNESS IN CHILDREN AGED 0–4 YRS, WHO PRESENT TO PAEDIATRIC A&E WITH MINOR HEAD INJURY, AND THEIR MANAGEMENT WITH REGARDS IMAGING

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Background Minor head injury is a common presentation to Paediatric Emergency Departments (PED). Various clinical decision rules exist to help clinicians decide which patients require radiological investigation, several include 3 or more discreet vomits. Anecdotally there is a subgroup of patients with minor head injury (MHI) who have intercurrent illnesses (ICI), however there is a paucity of research into this group and their management, particularly with regards imaging.

Objectives

- 1) To quantify the proportion of children (aged 0–4 yrs) who present to the PED with MHI and have symptoms of ICI.
- 2) To determine if these children are more likely to vomit than their counterparts.
- 3) To establish current clinical practice for children with ICI and vomiting post MHI.

Results Of 1203 children aged 0–4 yrs presenting to a PED in central London between April 2011 and 2012 with minor head injury, 88 (7.3%) had symptoms of an ICI. Children who had symptoms of ICI (38/88) were more likely to vomit than those who did not (92/1112) ($p < 0.001$). Of 16 patients who had an ICI and 3 or more vomits following head injury only 2/16 (12.5%) underwent CT head compared with 8/27 (29.6%) in the non ICI group. There were no cases of brain injury in either group.

Conclusion Minor head injury occurs frequently in the presence of ICI in younger children. These patients are more likely to vomit and clinicians are consciously contradicting current guidelines and interpreting imaging criteria within a clinical context.

PO-0297 CHILDREN PRESENTING TO THE EMERGENCY DEPARTMENT WITH HEADACHE AS PRIMARY COMPLAINT ARE NOT LIKELY TO HAVE A BRAIN TUMOUR

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Background Headache is a very common complaint in children presenting to the Paediatric Emergency Department (PED) and causes concern in parents and physicians regarding malignant intracranial processes. Aim of this study is to search for malignant etiologies in children presenting to the PED with headache as primary complaint.

Patients and methods All digital medical charts of children < 16 years presenting to the PED between August 2011 and August 2013 with headache as primary complaint were retrospectively reviewed. Children with history of intracranial tumour or surgery, recurrent headache under investigation or treatment, or traumatic headache were excluded. Age, gender, brain imaging and final diagnoses were registered.

Results Of all 34,336 children seen at the PED during 2 years, 117 (0.3%) consulted with headache as primary complaint: 61 boys (8.4 years \pm 3.4) and 56 girls (8.6 years \pm 3.7). Brain imaging (CT or MRI) was performed in 33/117 children (28%) because of clinical suspicion of intracranial processes: presence of associated neurological symptoms, valsalva manoeuvre increasing pain intensity, evolution with intensifying pain, recurrent focal pain, change in pattern/intensity, lack of response to analgesics and aberrant neurological features. Most frequent medical conclusions were “headache related to a viral infection”, “migraine”, “tension type headache”, “psychosomatic headache” and “headache without identified origin”. None of these patients suffered from a brain tumour.

Conclusions Children presenting to the PED with headache as primary complaint are not likely to suffer from a malignant brain tumour. More frequent their headache is related to a concurrent viral infection.

PO-0298 LIMITING WORKING SHIFT TIMES FOR PAEDIATRIC EMERGENCY DEPARTMENT PHYSICIANS REDUCES NUMBER OF COMPLAINTS BY PATIENTS' PARENTS

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Background Paediatric trainees have always worked many and long shifts during their education, especially while providing 24/7 continuity of care at the Department of Emergency Medicine. It is depicted that longer shifts lead to more medical errors and less patience with colleagues and patients.

This study aims to quantify the effect of reducing working shift duration for paediatric trainees on the number of complaints by parents of paediatric patients.

Methods The study is conducted in the Paediatric Emergency Department (PED) of a large tertiary hospital. Paediatric residents used to work shifts of over 24 h before, but work was reorganised introducing a rotational working scheme in 2008 reducing shifts to an absolute maximum of 14 h. All complaints filed by parents – either through the PED mailbox or via the Complaints Mediation Service of the hospital – were analysed. Periods before and after introduction of the rotational reduced shift system were compared regarding number of complaints, severity of these complaints, and number of reported verbal or physical aggressions.

Results Between 2003 and 2012, more than 150,000 patients presented to the PED. Less than 1% of these contacts led to a complaint. The number of complaints filed by parents still dropped significantly after reducing working shift times for

paediatric residents, taking care of these paediatric patients and their parents or caregivers.

Conclusions Reorganising extremely long working times to a rotational system of shifts with reduced working hours significantly reduces the number of complaints filed by parents visiting the Emergency Department with their child.

PO-0299 **EXCLUSIVE BREAST FEEDING INDUCED DISSOCIATIVE SHOCK IN A CHILD**

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Introduction As first choice of nutrition, breastfeeding is widely promoted but only sufficient for the first few months of life. Breast feeding mothers following special diets may induce certain deficiencies in their children.

Case report A 16 months old girl presents to the Paediatric Emergency Department with extreme pallor, long-term vomiting and coughing, general weakness and drowsiness since several months. Physical examination reveals besides cachexia (weight << P3), an almost transparent pale skin, thin fine hair and a holosystolic heart murmur III/VI, also marked reduction of joy of life and obvious psychomotor development retardation. Thorough anamnesis reveals the toddler is exclusively breastfed since birth by a macrobiotic mother. Laboratory findings include extremely low hematocrit (Ht 12%) corresponding with dissociative shock; extreme erythroblastopenia in absence of megaloblastosis (MCV 90), low platelets (71,000/ μ L), very high LDH (10,000 IU/L) and triglycerides (400 mg%), elevated ferritin (440 ng/mL), but normal serum iron and TIBC. Methylmalonic aciduria following immeasurable serum vitamin B₁₂ (< 1 pg/ml) is retained as a final diagnosis. The girl was successfully treated by daily intramuscular vitamin B12 injections during several weeks.

Conclusion In developed countries, children should not be exclusively breastfed during a prolonged period of time, especially when the mother is on a macrobiotic diet. Vitamin B12 deficiency as consequence of this attitude, may lead to extreme erythroblastopenia and developmental retardation. This case is exceptional because of the unusual history as well as the very late and discrete appearance of symptoms.

PO-0300 **'DAMAGED' BODIES IN THE PAEDIATRIC INTENSIVE CARE UNIT; IMPLICATIONS FOR PALLIATIVE CARE**

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Background and aims Health professionals in the PICU support both child and parents when the death of a child is imminent. The aim of this contribution is to emphasise that parents can suffer from the altered physical appearance of their child (e.g. severe oedema, bruises and cuts) but physical proximity in the final hours can help them cope.

Methods Parents of 24 children who died 4 to 5 years ago in the ICU were invited for a semi-structured interview. Qualitative analysis was applied with Atlas-ti 7.0.

Results Parents of 14 children (response rate 58.3%) participated. The children (aged 2 weeks to 13 years) were admitted in PICU from 2 h up to 7 months.

The importance of the integrity of their child's physical appearance stood out in their narratives. Parents spoke of the 'damaged' body as a result of necessary medical interventions, quote: "It was terrible, after the reanimation his ribs were broken. He was looking black. It was awful, really awful."

However, getting physically close to the child in the hour of death helped, quote: "We actually crept into bed with her bed, to hold her." Caring for the body afterwards also helped parents, quote: "After she had died I brushed her teeth like I always did when the kids were smaller. That was so good to do."

Conclusions End-of-life care asks for awareness that the child's damaged body deeply affects parents. Yet, being able to stay physically close helps them to be the parent they want to be.

PO-0301 **NON-INVASIVE MECHANICAL VENTILATION (NIMV) IN A CASE OF SEVERE ACUTE RESPIRATORY DISTRESS SYNDROME (ARDS) DUE TO FAT EMBOLISM SYNDROME (FES)**

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Background FES is a rare complication of long bone fracture in children and adolescents. Mortality ranges from 1%-15%. Typical presentation: hypoxemia, neurological abnormality and petechial rash. FES and thoracic trauma are known causes of ARDS. NIMV is being increasingly used in respiratory failure.

Aim To report the intensive care management of a previously healthy 16-year-old male who developed severe ARDS.

Methods The patient was transferred to our Paediatric Intensive Care Unit, because of respiratory distress, 2 h after being submitted to intra medullary nailing of left femur, for a closed diaphyseal fracture post motorcycle accident. Upon admission, patient was oriented, hemodynamically stable and manifested hemoptysis and hypoxemic respiratory failure $-pO_2/FiO_2 = 88,6$ mmHg, Alveolar-arterial gradient (AaG) = 572 mmHg (normal = 5,9 mmHg) - not responding to supplemental O₂ through a non-rebreathing face mask with reservoir. Chest X-ray: diffuse bilateral infiltrates. ECG and transthoracic echocardiogram: normal. Blood analysis: anaemia, thrombocytopenia, hypoalbuminemia, hypocalcaemia hypophosphatemia, CPK total 6870 IU/L (CK-MB normal) and d-Dimers 12450 (normal <500 ng/ml). Lower extremity ultrasound: normal. Spiral CT excluded pulmonary embolism, but was suggestive of fat embolism and inferior posterior segments contusions bilaterally. He responded to the use of NIMV (Pressure Support, PIP 22 cm H₂O, Peep 10 cm H₂O, FiO₂ 0.7) Petechial rash on trunk appeared later, confirming FES diagnosis. Additional treatment: RBC transfusion, methylprednisolone 60 mg/day, stress-ulcer prophylaxis, sbc LMWH, antibiotic and nutritional support.

Results Patient improved and was gradually weaned from NIMV 7 days later.

Conclusion NIMV has fewer complications and may be effective even in severe ARDS.