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### IDENTIFYING CHALLENGES WITH PAEDIATRIC PROCEDURAL SEDATION IN THE ED SETTING IN IRELAND AND THE UK: A PAEDIATRIC EMERGENCY RESEARCH IN THE UNITED KINGDOM AND IRELAND (PERUKI) STUDY

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**Aims** There is extensive literature on paediatric procedural sedation (PPS) and its clinical applications in Emergency Departments (EDs). While numerous guidance and policy documents exist from international bodies, there remains a lack of uniformity and consistency of PPS practices within EDs. PPS is now gaining traction in the UK and Ireland and this study aimed to describe existing PPS practices and identify any challenges to ED-based PPS.

**Methods** A qualitative approach was employed to capture data through a focus group interview. Nine specialists in Emergency Medicine (EM) participated, varying in years of experience, clinical settings (mixed adult and paediatric ED or paediatric only) and geographical location (UK and Ireland). The focus group, conducted at the College of Emergency Medicine annual meeting in London in 2013, was audio-recorded, transcribed verbatim and analysed using Attride-Stirling's framework for thematic network analysis. Ethical approval was not required for this study.

**Results** The global theme 'The Future of Paediatric Procedural Sedation (PPS) in Emergency Medicine – A UK and Ireland perspective' emerged from the following three organising themes: 1) training and education of ED staff; 2) current realities of PPS in EDs and 3) procedural sedation and the wider hospital community. The main findings were: there is significant variability in ED sedation practice throughout the UK and Ireland; lack of formal training in PPS at a trainee level is a barrier to its implementation as a standard treatment; there is a lack of recognition of PPS at a college/training level as a specialised emergency medicine skill.

**Conclusion** Emergency Medicine must take ownership of PPS as a core competency. This can be achieved by embedding procedural sedation training into general and paediatric EM training. Coupled with EM-led research and audit of sedation practice.

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### IMPROVING THE RECOGNITION OF DOMESTIC VIOLENCE IN AN URBAN EMERGENCY DEPARTMENT

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**Aim** Domestic violence (DV), substance misuse and psychiatric disorders are major risk factors that substantially increase the likelihood of child abuse or neglect. DV is common but rates of

detection are low among emergency professionals, who are often the first port of call for victims. Our project aimed to improve awareness and recognition of DV in an urban emergency department.

**Methods** A retrospective notes audit of women aged 16–65 years presenting with injury or assault was conducted over two, two-month periods (1st phase and 2nd phase), with detailed analysis of patient notes done in two two-week sampling frames during each phase. Between these two phases a diagnostic algorithm was introduced to remind clinicians to consider DV and inquire about children at home. Training sessions for emergency staff were organised. The algorithm was inserted into the notes in the form of stickers by the triage nurse. Clinicians attending the injured women would then complete the algorithm and make the appropriate DV and child protection referrals.

**Results** 743 eligible patient notes were reviewed. 373 women presented to the emergency department with injury or assault in the 1st phase and 370 in the 2nd phase. There was an initial low uptake of the algorithm and barriers to its use were identified via staff questionnaire. This resulted in supplementary training sessions and email reminders. Although overall comparison between the 1st and 2nd phases of data collection showed no significant increase in the identification of DV, after addressing staff concerns, there was a significant increase in the use of the algorithm in the last 2 weeks of the 2nd phase with the diagnosis of DV increasing from 5 to 10% ( $p \leq 0.048$ ). 31% of women identified with DV in the 2nd phase had children, which were then referred to social care.

**Conclusion** The use of a diagnostic algorithm together with regular staff training sessions has the potential to increase identification of DV. This will not only help protect vulnerable women but also their children, and offers the opportunity for early support and referral to the appropriate services.

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### FAVOURABLE EVENT REPORTING FORMS: LEARNING FROM POSITIVE PRACTICE

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**The background** The review of and learning from mistakes is important. It could be argued that too much emphasis is afforded to this and that negativity has become pervasive. The vast majority of practitioners dedicate their working lives to providing the best care they can in ways not clearly recognised or encouraged. We feel formal recognition of good practice could be used to encourage excellence.

**The aims** Cognisant of the potential negative effect of reviewing only failings we designed a tool by which positive events could be recognised.

Formally marking positive practice is not only a useful learning tool but helps propagate clinical excellence at an individual and group level. Furthermore, it has the potential to enhance confidence and morale while providing evidence for formal appraisal.

We call the tool the 'Favourable Event Reporting Form' or 'FERF'.

**The methodology** A simple reporting form details an individual, a positive event and the perceived learning points. The form allows open-text description and any member of the team could complete one about any other staff member. Forms were

submitted for monthly review. The process thereafter consisted of three stages: a letter of recognition from the lead consultant and senior sister; a summary detailing the event and its learning points was prepared for the FERF noticeboard (located so staff, patients and their families could view it) and each individual FERF was discussed at the Risk Forum Meeting.

**The results** A simple impact analysis was made after a six month pilot. We quantified feedback by category and semi-qualitatively assessed the impact of the FERF concept on attitude and team morale.

The results of this analysis demonstrated an increase in the amount of formal positive feedback being received by all members of the team. Morale has been sustained beyond the pilot and many respondents reported a positive change in their attitudes towards other team members.

While larger scale work is needed to further evaluate FERF as an educational intervention, the extraordinarily positive results from the pilot unequivocally suggest that the concept is worth pursuing. Recognising excellence should become part of everyday practice and appraisal.

### G79(P) INVESTIGATION OF CHILDREN WITH SUSPECTED SKULL FRACTURE – SERVICE EVALUATION AT TWO CENTRES

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**Background and aims** Half a million children attend UK Emergency Departments (EDs) due to head injury (HI) annually. Most have a mild HI, but early identification of those with serious traumatic brain injury (TBI) is crucial. The risk of TBI is significantly higher in the presence of a skull fracture. Cranial bone ultrasound (CRUSS) is an emerging investigation to identify or exclude fractures while avoiding radiation burden. We aimed to assess current imaging practice and evaluate CRUSS accuracy to determine whether its use could reduce CT scanning rates.

**Methods** Retrospective chart review over twelve months at two sites:

Site One: Tertiary Paediatric ED

Site Two: District General Hospital ED seeing adults and children.

All children 0–16 years (except for suspected abuse cases) receiving imaging for HI, identified via radiology electronic databases, were included.

**Results** 2,233 and 804 children were seen due to HI at Sites 1 and 2 respectively, of which 26 (1%) and 38 (5%) fulfilled selection criteria. Imaging modality rates are presented in Table 1. Most received CT; only a small number (4) had CRUSS – of these, all were neurologically stable, two were delayed presentations ( $\geq 24$  hrs after injury).

**Abstract G79(P) Table 1** Imaging modality rates

	Imaging modality rates	
	Site 1	Site 2
CT only	21 (81%)	33 (87%)
US only	2 (8%)	0
SXR only	0	4 (11%)
SXR and US	2 (8%)	0
SXR and CT	1 (4%)	1 (3%)

Site 2 had a higher CT rate overall (1% vs 4%). There were seven delayed presentations at Site 2 – five could have benefited from USS rather than CT if the service was available.

**Conclusions** CRUSS may have a role in both acute and sub-acute HI, whether as a decision making aid or diagnostic tool. Its accuracy and utility cannot be determined due to the low numbers in this study. However, we have demonstrated that it is being used, and as this use is likely to increase, further prospective research is required to fully determine its role.

### G80(P) OPTIMISING MULTIVITAMIN SUPPLEMENTATION IN PAEDIATRIC EMERGENCY DEPARTMENT (ED) PATIENTS – A HEALTH PROMOTION INITIATIVE

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**Aims** Vitamin D deficiency is an increasing problem within the UK, particularly in high-risk groups. Clinical manifestations include seizures and cardiomyopathy in infants, muscle weakness, non-specific abdominal pain, poor growth and rickets. Current recommendations are that all children from six months to five years of age receive 7 – 8.5 micrograms of vitamin D per day (Department of Health and Chief Medical Officers). The British Paediatric and Adolescent Bone Group advocate that exclusively breastfed infants receive vitamin D supplements from soon after birth.

The Government's 'Healthy Start' programme aims to prevent deficiency by providing multivitamins (A, C and D) free to families on income support. Some Clinical Commissioning Groups (CCGs) fund these vitamins beyond the scheme - in the case of our own CCG, this is for all children aged 6 months – 3 years inclusive.

Healthy Start vitamins have been available within our ED for some time, with a poster campaign in the ED waiting room encouraging parents/carers to request them. In view of our particular high risk populations, and the large number of cases of vitamin D deficiency diagnosed within our ED, we sought to optimise the provision of Healthy Start vitamins.

**Methods** Our ED documentation card was modified to prompt the nurse/clinician to routinely ask parents/carers of infants and children 3 years and below if they were currently receiving multivitamins. When this was not the case, a bottle of the Healthy Start vitamin drops was offered, together with a written information booklet about the scheme.

We compared the number of bottles of vitamins supplied before and after this change, by reviewing the logsheet entries for each issue.

**Results** Number of patients receiving Healthy Start vitamins:

Time Period	Dates	Number of patients	Average number of patients per month
Pre-change	March to Sept 2014	12	1.7
	Mid-Oct to mid-Nov 2014		
Post-change	(one calendar month)	52	52

**Conclusion** Patient attendances to EDs provide opportunities for clinicians to support national health promotion campaigns. This can be optimised by incorporating health promotion questions as a standard aspect of clinical care. The next stage of this initiative will be an audit of the new multivitamin process, to ensure that