An extremity osteosarcoma developed in another bilateral retinoblastoma patient after 4 years.

Conclusions Since, the risk of this re-occurrence is associated with the dose of some chemotherapeutics cumulatively, the radiation field and the use of minimal therapy that has the maximum efficacy according to the diagnosis, age, stage and risk of the patient is important.

1554 AN EDUCATIONAL PROGRAMME FOCUSING ON PAEDIATRIC FRACTURE IDENTIFICATION MAINTAINS A LOW FALSE-NEGATIVE RADIOGRAPH INITIAL REPORT RATE IN EMERGENCY MEDICINE

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Introduction False negative radiograph reports constitute greater than 80% of all diagnostic errors in Emergency Departments (EDs) with reported levels of false negative initial reports around 1%.

Method The records of all patients recalled to the Emergency Department clinics for management of a possible false-negative initial radiograph report were examined (n=46), following which the junior emergency medicine doctors received three tutorials on fracture identification and management. A re-audit was completed.

Results Between 1st September 2010 and 16th January 2010 a false negative radiograph report rate of 0.72% was identified. There were proportionally more false negatives in patients aged under 16. Between 16th January and 31st May 2011, after the educational intervention, the false negative radiograph report rate had dropped to 0.62%. The percentage reduction in false negative reports was 13.8% (p=0.53).

Conclusions These results suggest that a well developed educational programme is an effective way of maintaining a low level of false negative initial reports in an Emergency Department.

False negative reports were most likely in fractures of the foot, wrist, elbow and those in the paediatric population. Educational sessions should focus on identification of these fractures. Mistakes in diagnosis can occur when an inexperienced clinician dismisses a positive clinical examination after mis-interpreting an imaging investigation. Encouraging senior review of paediatric radiographs could help to maintain a low false-negative report rate.

This study indicates that educational interventions may have the potential to improve patient care in the Emergency Department setting. Further ways to reduce human error need to be explored.

1555 A REVIEW OF SAFEGUARDING DOCUMENTATION IN PAEDIATRIC TRAUMA PATIENTS

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Background The Royal London Hospital is a Major Trauma Center (MTC) in East London. In 2011, we saw approximately 300 paediatric traumas. Our borough has one of the highest rates of safeguarding issues in the country. Therefore, awareness and documentation of these issues is paramount.

Aim To determine the quality of safeguarding documentation in paediatric trauma patients presenting to the Major Trauma Centre (MTC).

Methods A retrospective analysis of documentation of paediatric trauma patients notes presenting to the Emergency Department at the Royal London Hospital between 1st January 2011 and 1st January 2012. A register of patients was obtained from the Emergency Department database and trauma database. There are no current UK guidelines regarding minimum standards of safeguarding documentation in the paediatric population in the UK. We defined the audit standard as the minimum level of documentation required to satisfy Barts Health NHS trust and local policies.

Results Projected results indicate safegaurding documentation may be inadequate in greater than 90% of cases.

Conclusions Current standards of safeguarding documentation within our Major Trauma Centre will be significantly below the minimum standard required at a local level. This has implications nationally where analysis would be expected to achieve a similar outcome.

1556 A PROSPECTIVE REVIEW OF NITROUS OXIDE SEDATION POST INTRODUCTION OF A PAEDIATRIC PROCEDURAL SEDATION PROGRAMME IN A PAEDIATRIC EMERGENCY DEPARTMENT

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Background and Aims Introduction of a structure Paediatric Procedural Sedation (PPS) Programme facilitates Emergency Department (ED) staff in the safe and efficacious practice of PPS in the ED.

Methods Nitrous oxide was introduced into our institution in July 2011, as part of a PPS programme in the ED. All ED staff (doctors and nurses) must complete the sedation programme before preforming any sedation in the ED. Each sedation event is prospectively recorded on a specific paediatric emergency department sedation checklist and recorded data is then entered into a *Microsoft Access*® database.

Results Since the programme introduction 82 sedation events have been recorded. The majority of patients were male (49:33 M:F) with an average age of 6 years (17months - 15yrs). The indications for sedation were as follows: Joint manipulation (17), Removal of Foreign Body (12), Suturing (45) and Other (8). We have recorded a total of 17 (20%) adverse events: most commonly, vomiting and agitation. The majority of procedures were performed by ED staff, however some required a specialist to perform the procedure: Plastic Surgery, General Surgery and Orthopedics. Without the provision of sedation in the ED the majority of these patients would have required hospital admission for general anaesthesia.

Conclusion The introduction of nitrous oxide as a sedative agent for procedures in children in our ED has been successful. With low adverse event rates which are comparable to international experience and no serious adverse events have been noted.

1557 IMPLEMENTATION OF A PROCEDURAL SEDATION PROGRAMME IN A TERTIARY PAEDIATRIC EMERGENCY DEPARTMENT

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Background and Aims In the conduct of Paediatric Procedural Sedation (PPS) within the Emergency Department (ED) the combination of powerful drugs, variable competency levels and high staff turnover carry the potential for sedation-associated adverse events. Yet, currently, there is no set programme for education and accreditation of Irish ED staff in PPS. We describe the introduction of a structured educational programme for PPS within the ED for all ED clinical staff.

Methods Prior to the introduction of the PPS programme in July 2011 a Sedation Committee was established comprising a core group of senior nurses and a Consultant in Emergency Medicine. The committee developed the PPS programme including key educational elements (Sedation Manual; Lecture; treatment order form and checklist; Parent Information Leaflet) and credentialing through multiple-choice questions (online and open-book), bedside teaching (2 scheduled practice sessions) and 2 competency assessments (final clinical/moulage).
Results Since its inception (July 2011) a total of 48 ED staff members have started the PPS programme:

- 17 doctors (9 Registrars and 8 Senior House Officers) with 7 fully credentialled;
- 26 nursing staff (1 Clinical Nurse Manager (CNM) 3, 5 CNM2, 1 Advanced Nurse Practitioner (ANP) and 19 staff nurses) with 12 fully credentialled.

Conclusions The introduction phase of our ED PPS, the first of its kind in Ireland, has been successful. As a result of the multidisciplinary development process, the programme will likely have broad applicability in different types of ED, and potentially other clinical areas, caring for children.

1558 PHARMACISTS INTERVENTIONS IN A CHILDRENS HOSPITAL - WHAT CAN THEY TELL US? DO THEY PREVENT HARM?

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Background Clinical Pharmacists review prescriptions for safe and economic use. Prescribing for children involves increased complexity and errors have potentially more serious consequences.
Method Paediatric pharmacists' interventions logs were entered into a database and analysed. A harm category using the National Coordinating Council for Medication Error Reporting and Prevention (MERP) algorithm (1) and type of intervention was assigned to each. Some interventions records were assigned more than one type e.g. renal impairment and wrong frequency.
Results Of the 500 records, 489 interventions prevented harm as seen in the table below (category A-D).

Abstract 1558 Table 1 Table of MERP Categories

A	B	C	D	E	G
53	163	145	128	10	1

Interventions were not captured before administration on 260 (52%) occasions, 113 of thee were via the parenteral route. Wrong dose was cause for intervention in 41.8% prescriptions (115 dose too high, 94 underdose) and incorrect frequency in 67 (13.4%). There were 18 interventions involving wrong calculation, decimal point or unit of mass errors. Formulation issues were the cause of 38 (7.6%) interventions which 7/38 also involved cost savings. Altered drug handling e.g renal impairment, prematurity was involved in 105 (21%) interventions. Ambiguous prescribing or legalities led to 58 (11.6%) interventions. There were 35 (7%) unintentional errors as a result of incorrect or incomplete drug history taking on admission.
Conclusions Paediatric prescribing errors reaching and harming paediatric patients can be reduced as a result of timely intervention by pharmacists.
Reference:

1. http://www.nccmerp.org/pdf/algorColor2001–06–12.pdf.

1559 BUTTON BATTERY INJURIES LODGED IN THE ESOPHAGUS, THE EVOLVING DANGER

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Background and Aim Button battery (BB) ingestion is potentially a life-threatening condition for children and has increased continuously in recent years. BBs lodged in the esophagus may cause serious complications and even death. The aim of the present study was to compare the relevant studies in the literature to our results of cases in which a BB was lodged in the esophagus.
Methods The present study retrospectively analyzed 16 patients who ingested BBs that lodged in the esophagus. Data were collected from medical charts at the pediatric surgery department during 2007–2011. Ten male (62.5%) and six female patients aged 2–99 months (mean age ± SD, 34.81±25.23 months) were evaluated. Cases were studied for time and location of the battery in the esophagus, presenting symptoms, diagnostic evaluation, complications, and outcomes.
Results Children who ingested BBs were all < 6 years of age (14) (87.4%). The most common clinical complaint of the patients was history of swallowing and diysphagia. Eight patients suffered from corrosion at different stages, 2 had an eosophageal perforation and tracheoesophageal fistula. Two patients were death releated complication of BB ingestion. Nine (56.3%) patients had BB ingestion history before admission to the clinic. All BBs were from toys and were lithium BBs of >15 mm circumference.
Conclusions BB ingestion is an important condition in children. An endoscopic examination and removal must be performed urgently for a BB lodged in the esophagus.

1560 PARENTAL SUPERVISION MAY NOT BE ENOUGH IN PREVENTING ACCIDENTAL POISON INGESTION IN CHILDREN

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Background/Aims It is a general notion that accidental poison ingestions in children seldom happen under parental supervision. Our objective was to compare the doctors' perceptions of supervision with the parental recall of the actual events.
Methods Pediatricians were recruited for a short survey and asked using Likert scale if they agree/disagree that children are more likely to ingest harmful substances when supervised by their parents. Parents of the children who had been seen in the ER (emergency room) in the preceding 3–13 months with accidental poison ingestion were called and asked who first discovered the child ingest a harmful substance. The answers were compared using frequency bar plotting to get the percentage of responses and referenced against the documented medical records.
Results 107 doctors out of 136 approached responded to this question item. 71 mothers were willing to talk about their experience from the 100 parents. 13 physicians out of 107 (12%) believed that children were more likely to ingest harmful substance when they are supervised by their parents. From the 71 parents interviewed 51(72%) recalled that either the mother or the father or both were present when the child ingested a harmful substance. From the hospital record 86 out of 101 cases (85%) documented parent/s as witnesses. The difference between the physicians' perceptions and the parental record plus the hospital data was significant (p=0.000, CI 95% 1.75–2.09).
Conclusion Parental supervision is not a 24/7 surveillance and in itself not an adequate strategy in preventing accidental poison ingestions.