

**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 these 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  $\pm$  SD, 34.81 $\pm$ 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 dysphagia. Eight patients suffered from corrosion at different stages, 2 had an esophageal perforation and tracheoesophageal fistula. Two patients were death related 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.

**1561 STRATEGIES TO IMPROVE PAEDIATRIC INPATIENT PRESCRIBING PRACTICE IN THE UK**

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**Background and Aims** Errors are common in paediatric inpatient prescribing. This audit cycle assessed the impact of new strategies aimed at reducing prescribing errors.

**Methods** Drug charts from short-stay admissions in January 2010 were assessed retrospectively. Two gold standards were used; local hospital prescribing guidelines and the British National Formulary for Children (BNFC) 2009. From these results, a number of strategies were implemented to improve practice: prescribing training for new doctors was enhanced; a mandatory prescribing competency assessment was introduced; awareness was raised through local and regional presentations; increasing the availability of BNFC in clinical areas; daily pharmacy endorsements of drug charts and provision of Doctors' name stamps; and recommendations for a drug chart re-design. We then re-audited using identical methods in July 2010.

**Results** A total of 106 charts were assessed. Changes in documentation were found as follows:

Improvements: reason for non-administration (+26%), allergy status (+20%), at least one medication pharmacy-endorsed (+16%), date of birth (+5%), dose in mg/kg where applicable (+5%), frequency for all medications (+2%), 'micrograms' written in full (+1%).

No change: patient name (100%), no unofficial abbreviations (100%), weight (96%), signature when administered (96%).

Worsening: appropriate decimals (-6%), doctor's name stamp (-6%), start date (-5%), total dose (-2%), administration route (-1%).

**Conclusions** This audit revealed significant improvements in paediatric prescribing following implementation of our recommendations. However, key areas were identified for further improvement. Current work includes continued development of training, a dedicated prescribing area on the ward, regular monitoring of drug charts and continuing re-audit.

**1562 MALTREATMENT IN CHILDHOOD AND ADOLESCENCE - HOW WE KNOW?**

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**Background and Aims** Only with the 1988 Constitution (Article 227), Brazil began to recognize the child as "subject" of rights and not as property of their parents. This constitution created the Statute of Children and Adolescents (Law 8069/90) which states that children and adolescents are carrying special rights, ie they must be respected and protected. Today violence is considered a universal phenomenon that affects all ages, social classes, religions, and is one of the most serious public health problems, is the leading cause of infant mortality from the age of five. This study aimed to analyze the children admitted to the Teaching Hospital Alcides Carneiro, Brazil suspected of Maltreatment.

**Methodology** Cross-sectional study of cases reported to the Guardian Council of Petrópolis at the Pediatric Hospital Alcides Carneiro, from May 2007 to March 2010.

**Results** met the inclusion criteria of the study 61 patients, of whom 55% were female. Of the total, 15.27% had multiple types of abuse, a total of 72 reports (63.7% Neglect, physical abuse 19.4%, Sexual 12.7% and Psychological 4.2%). As to age: infants 36%, 13% preschoolers, school 16.4% and 26.2% adolescents. The mother was

responsible for 73.8% of assaults and father by 44.3%, and in some cases both are equally liable.

**Conclusion** This study draws attention to the magnitude of the problem to be faced by those in the routine is responsible for the comprehensive care for the child's health.

**1563 PEDIATRIC HOSPITALIZATIONS FOR IDENTIFICATION OF FOREIGN INJURIES TEACHING HOSPITAL IN THE PERIOD 2004 TO 2010**

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**Background and Aims** In recent decades in our country, were deployed care programs and child health by facilitating the identification of external injuries. Among others, the disease control immunopreventable contributed to external causes was put among the leading causes of morbidity and mortality. The objective of this study was to identify pediatric hospitalizations for injuries in external Teaching Hospital, Maternal Child Health Reference of the city of Petrópolis, mountainous region of the State of Rio de Janeiro, Brazil.

**Methods** Cross-sectional study of pediatric hospitalizations with a diagnosis of Injury in the period 2004 to 2010 in Teaching Hospital is not referenced to childhood trauma.

**Results** 7397 children were hospitalized during the study period, 311 being distributed by external causes: TBI: 23.8%, 17.4% Burns; Mistreatment 17%, 13.5% exogenous poisoning; Multiple Trauma 8%; Presence of foreign bodies in orifices natural 7.7%, 1.5% Semi-drowning; Miscellaneous 11.1%. The number cases/year in 2004 was 2.6% and 8.2% in 2010. The gender distribution was 57.6% male, mean age of 5.2 years and duration of hospitalization was 7.3 days.

**Conclusion** The data analysis shows a relative increase of hospitalization for injuries in our hospital we attach to implementation and effectiveness of control programs for primary health care of the child.

**1564 EFFECT OF AN INTERVENTION ON PERIPHERAL INTRAVENOUS CATHETER INFILTRATION RATES IN THE PEDIATRIC DEPARTMENT OF KING FAHAD ARMED FORCES HOSPITAL**

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**Background and Aims** Peripheral intravenous catheterization is the most common invasive procedure among paediatric inpatients. Infiltration and extravasation are common complications, causing pain, discomfort, infection, nerve damage, and tissue necrosis. In an effort to reduce our rates, we designed a prospective intervention study.

**Methods** This was a prospective study performed in the Pediatric department of King Fahad Armed Forces Hospital. We recorded the infiltrations from Jan to June 2010, followed by the intervention during July and August 2010, in the form of in-services and laminated posters emphasizing site of catheterization, use of transparent tape and hourly cannula site inspection. The rates of infiltrations were then recorded from September 2010 - October 2011. Patients with any form of vasculitis, thrombotic or bleeding tendency were excluded. Descriptive data was recorded and rates were compared between pre- and post-intervention. Statistical analysis was performed using SPSS version 17.0.