Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency

An Ghníomhaireacht Stáit um Éilimh
State Claims Agency

Patient Safety Notification

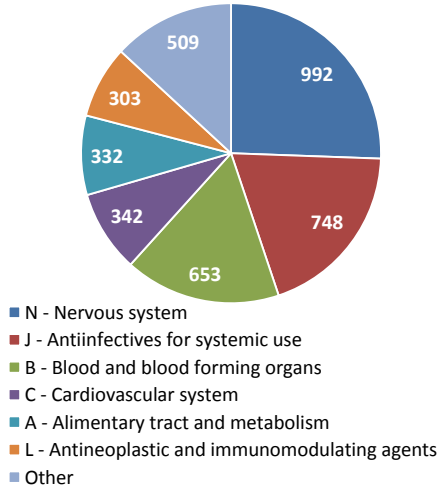
Clinical Risk Unit **July 2017**

An effective culture of safety is evidenced by robust reporting[1]. The State Claims Agency (SCA) operates the National Incident Management System (NIMS), a confidential, highly secure end-to-end risk management tool that the HSE and relevant funded services use, to report incidents. The SCA is committed to supporting proactive risk reduction by analysing NIMS data to identify emerging patterns, nationally, of new or previously unidentified patient safety issues. Circulation of safety notifications is an important element of a positive patient safety culture.

Medication Incidents Reported Nationally 2016*

- Acute Hospitals reported 5,506 medication-related incidents on NIMS which occurred in 2016 and accounted for 17.0 % of the total clinical incidents reported
- 29.4% of medication incidents did not include the medication name
- The five most common named medications associated with incidents were; Enoxaparin, Amoxicillin + Clavulanic Acid, Paracetamol, Morphine Sulphate and Vancomycin
- Identified areas of high-risk include the following:
  - Simultaneous prescribing of Direct Oral Anticoagulants (Apixaban, Dabigatran and Rivaroxaban) and Low Molecular Weight Heparins
  - Prescribing and administering Penicillin based antibacterials to patients with a known Penicillin allergy
  - Lack of adherence to protocols regarding the prescribing and monitoring of levels of antibiotics with a narrow therapeutic index (Vancomycin, Gentamicin).

Known Medication Classes in which Clinical Incidents Occured 2016



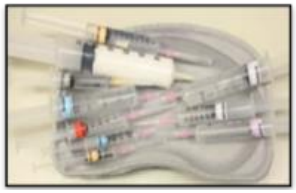
*Data accurate as of 20/03/2017

Matthew Kennedy, Clinical Risk Advisor

Medication Incidents Reported from Operating Theatres Nationally

Within a twelve month period up to March 2017, five medication incidents were reported on NIMS in relation to incorrect intravenous bolus medications administered to patients in operating theatres.

- All five incidents resulted in emergency intubation of the patients. No deaths were reported. Three of the incidents involved patients who were attending maternity services.
- Three incidents related to the administration of neuromuscular blocking agents (Suxamethonium or Rocuronium) used to produce muscle relaxation during anaesthesia. These included:
  - Rocuronium being given instead of Oxytocin post-delivery
  - Suxamethonium being administered instead of Midazolam (a benzodiazepine)
  - A syringe containing Suxamethonium was mislabelled as Fentanyl (a synthetic opioid analgesic)



- Two incidents related to the administration of Sodium Thiopental (short-acting barbiturate general anaesthetic) instead of antibiotics.
- The reporting hospitals verified the incidents and outlined recommendations and controls to mitigate against recurrence. These included:
  - Introduction of coloured trays to visually separate emergency drugs.
  - Drawing up neuromuscular blocking agents only when required.
  - Medication safety sessions for staff.
- Eighteen similar incidents which occurred in operating theatres were reported in the preceding twelve years.
- **Healthcare organisations should review their current medication systems within the operating theatre to identify any opportunities for improvement and national standardised practices should be formulated and introduced [2].**

Mairead Twohig, Clinical Risk Advisor

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Medication Related Finalised Claims, 2011-2015 Inclusive

- A recent study by the SCA analysed medication-related finalised claims from 2011 to 2015 inclusive.
- The key findings of the study were as follows:
  - Opioids were the most frequently cited therapeutic group in these claims, followed by antibiotics and local and general anaesthetics.
  - The majority of errors occurred in the prescribing and administration stages of the medication use process.
  - The top three most frequently encountered incident categories were wrong dose, wrong drug and adverse effect.
- Further details of this study will be made available in due course.

Mark McCullagh, Clinical Risk Advisor

Risk Management Suggestions

Medication errors, a subset of incidents, are a preventable cause of morbidity and mortality, nationally and internationally. They may occur at different points in the medication-use process including during prescription, transcription, dispensing, administration and monitoring drug therapy.

Strategies to prevent these occurring were outlined in a recent publication by the SCA [3]. These include introduction of the electronic healthcare record (EHR) with clinical decision support and computerised physician order entry (CPOE), which has been demonstrated to reduce drug errors [4] including drug-drug interactions and the prescription of a medication to a patient with a known allergy to that medication. An EHR with portals for GPs and community pharmacists would assist in promoting medication reconciliation particularly at times of patient transfer which is high-risk. Availability of a clinical pharmacy service in hospitals has been shown to reduce medication errors[5]. Introduction of a national drug kardex would reduce variation and promote standardisation across acute hospitals nationwide. The recent introduction of the medication record template for adult medical and surgical patients should be used as a point of reference in other settings when revising their medication records[6]. Patient and carer engagement regarding their medications should be encouraged. Smart infusion pumps have drug libraries with standardised concentrations for commonly used drugs, which allow them to provide point of care decision support feedback for excessively high or low rates and doses, thereby reducing administration errors. Checking medication with a colleague can be practically difficult for doctors in the operating theatre: bar coding and prefilled syringes with clear labels would help prevent medication errors in this setting. The additional cost in financial terms would be balanced by a reduced cost to the patient in terms of morbidity, to the healthcare professional in terms of reducing “second victim” symptoms and to the tax payer in terms of the financial cost of medico-legal claims.

Dr Dubhfeasa Slattery, Head of Clinical Risk (December 2014-June 2017)

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