Abstract GRP-084

<table>
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<th>Re-audit September 2010</th>
<th>Re-audit January 2012</th>
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No conflict of interest.

**Identification of Relevant Drug Interactions in Neonatal Intensive Care Units**

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**Background** Among the different types of medication errors, drug interactions may have serious consequences in Neonatal Intensive Care Units (NICU). However, they can be easily detected with appropriate tools, particularly in the context of a computerised prescribing system with pharmaceutical analysis.

**Purpose** The objective of this study was to calculate the theoretical criticality index, using a method inspired by the Failure Modes, Effects and Criticality Analysis (FMECA) method for each drug interactions identified in NICU in order to prioritise them to pharmacists and physicians.

**Materials and Methods** The study was a retrospective review of prescriptions in a French NICU. The study included prescriptions for preterm infants with gestational age below 35 weeks and hospitalised between January 2006 and December 2009. For each prescription, drug interactions were evaluated with the French Theriaque medication database. The criticality index of each drug interaction was calculated by multiplying occurrence, severity and detection scores. The scales of each score had been built by a multidisciplinary group. Severity and detection scores were assessed by pharmacists and physicians. Intraclass Correlation Coefficients (ICCs) were used to compare pharmacists’ and physicians’ scores, and a synthesis was realised.

**Results** Among the 907 prescriptions with at least 2 prescribed drugs (4605 prescriptions written, with 109 different drugs), 47 different drug interactions were identified with Theriaque®. The 10 most critical drug interactions for pharmacists and physicians were detailed, and then a common medical and pharmaceutical synthesis was established. The ICC of detection was 0.75 (95% CI: 0.63–0.88), and the severity was 0.32 (95% CI: 0.08–0.56).

**Conclusions** This work highlights the importance of multidisciplinary collaboration in safe medication practise. This method can be used as a basis for future cooperation between medical teams and the pharmaceutical teams that make interventions. It is easily transferable to other medical specialties with the same objectives.

No conflict of interest.

**Identifying New Tuberculosis Cases Through Pharmacy Dispensing Records in Prof Dr Fernando Fonseca Hospital, Portugal**

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**Background** Controlling and preventing tuberculosis (TB) continues to be a major public healthcare challenge. Pharmacy and clinical records can thus contribute with important information concerning newly-diagnosed inpatients, treatment regimens and resistant strains.

**Purpose** To identify new tuberculosis (TB) cases through prescription records in a Portuguese General Hospital.

**Materials and Methods** This study took place in 2012, in Hospital Prof Dr Fernando Fonseca EPE (HFF), an 800-bed hospital. Patients were identified from pharmacy dispensing records (Hoxis v7.1; SIVSA) and clinical information was collected from the electronic medical records (Sorarian Clinicals 3.1; Siemens). This data covered: age, sex, signs and symptoms, risk factors, outcomes of chest X-ray, diagnosis, respiratory isolates, therapeutic and microbiology results.

**Results** To the end of September 2012 75 new cases of TB were identified. 38 diagnoses were made up to 24 h after hospital admission. The most frequent symptoms were non-productive cough 65.8%, weight loss 55.3% and fever 50%. There were 26 cases of pulmonary TB and 12 of extrapulmonary TB. 23 patients tested positive to the Ziehl Neelsen stain. 2 of the patients had resistant TB. 37 patients were diagnosed up to a maximum period of 10 weeks after hospital admission. The most frequent symptoms were non-productive cough 40.5%, weight loss 40.5% and fever 37.8%. There were 16 cases of pulmonary TB, 13 extrapulmonary and 8 strictly clinical and imaging diagnoses. 3 patients tested positive to Ziehl Neelsen. 2 of the patients had resistant TB. By the time of the congress data will be updated for the year 2012.

**Conclusions** The high rate of delayed-diagnosis TB contributes to an increase risk for the health care workers and other patients exposed to it. The hospital OHD used this study to demonstrate the importance of early diagnosis in the Emergency Department and faster microbiology results and of putting suitable isolation measures in place.

No conflict of interest.

**Impact of an Electronic Medicines Reconciliation Programme Used in a General Surgery Unit**


**Background** Medicines reconciliation is a key tool in the prevention of adverse drug events.

**Purpose** To assess the impact of a medicines reconciliation programme for hospital admission into a general surgery unit, including an electronic tool, in the number and type of unintended discrepancies between chronic medicines and medicines prescribed upon admission.
Materials and Methods  A quasi-experimental/retrospective study was carried out, analysing discrepancies between chronic medicines and drugs prescribed in the hospital, before and after a medicines reconciliation programme was implemented.

Patients admitted to a general surgery unit for more than 24 h who were taking ≥3 drugs chronically at home were included.

A standardised interview was conducted to record chronic medicines. Pharmacists detected and investigated discrepancies. The severity of unintended discrepancies was assessed by consensus with medical staff using the National Coordinating Council for Medication Error Reporting and Prevention 2001 classification. A computerised reconciliation tool, integrated into the electronic prescription, was implemented during the intervention phase.

Results  A total of 191 patients were included (52.9% male, 47.1% female), 107 patients in the phase before intervention and 84 in the phase after intervention.

1,951 drugs were investigated, and 1,678 discrepancies were detected. There were 167 unintended discrepancies, 102 (10.6% of drugs investigated) in the first phase and 65 in the second phase (6.6%), p = 0.0021. Omission of drugs was the most common unintended discrepancy, being 89 (9.2%) in the phase before and 55 (5.6%) in the phase after intervention, p = 0.0027.

Unintended discrepancies were grade C severity in 79.2% of those detected, decreasing in the second phase (3.95% of total drugs investigated) compared to the first one (8.61%), p < 0.05.

Conclusions  The implementation of the medicines reconciliation programme has shown a reduction of the rate of unintended discrepancies detected during admission into a general surgery unit. Omission of drugs was the most common type of discrepancy detected in both phases and decreased after intervention.

No conflict of interest.
GRP-087 Impact of an Electronic Medicines Reconciliation Programme Used in a General Surgery Unit


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