presentations in the department was implemented: Amoxil (amoxicillin, measuring spoon) and Azimax (azithromycin, dose weight pipette).

Results A total of 77 mothers were included in the study. More than 75% (n=58) showed poor understanding of the intake method when we tried to have them repeat the dosing and administration schedule compared with the medical prescriptions they had. For 75.5% of the 45 mothers with a prescription containing Amoxil, the oral suspension, once reconstituted, was stored at room temperature when it required refrigeration (2–8°C). The response for the preservation of the two drugs after opening the vials was until expiration in 92.20% (n=71), while actually it is 7 days for Amoxil and 5 days for Azimax. Seventy-two interviewees thought that it was possible to exchange graduated pipettes. The Amoxil and Azimax reconstitutions were incorrect in 66.66% (30/45) and 81.25% (26/32) of cases, respectively, with the risk of overdose for Azimax (15/26) and underdose for Amoxil (19/30). The preparation of the dose was incorrect in 60% of cases when using the dosing spoon with Amoxil and in 84.37% of cases when using the dosing pipette with Azimax.

Conclusion and relevance This study highlights the significant number of errors made by mothers during reconstitution and preparation of drugs, which requires the hospital pharmacist’s involvement in educating families on the use of liquid oral forms.

REFERENCES AND/OR ACKNOWLEDGEMENTS

No conflict of interest.

5PSQ-081 THE BENEFITS–RISKS BALANCE OF LEECH THERAPY IN ONE HOSPITAL: A RETROSPECTIVE STUDY

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Background and importance Venous congestion in transplanted or re-implanted tissues remains a common and challenging complication in reconstructive surgery. Medicinal leeches have been increasingly used for salvage of compromised pedicle flaps and microvascular free tissue transfers. However, leech therapy is associated with a number of risks, including significant blood loss requiring transfusion and infections, as leeches can be vectors of bacteria, har- bouring resistance to major antibiotics. Thus, we conducted a retrospective study on all patients who received leech therapy in our hospital, from 2010 to 2018.

Aim and objectives The aim of this study was to assess the benefits–risks of leech therapy. Indeed, in the era of increasing antibiotic resistance, leeches can be vectors of bacteria, har- bouring resistance to major antibiotics. Thus, we conducted a retrospective study on all patients who received leech therapy in our hospital, from 2010 to 2018.

Material and methods The purchase, maintenance and distribution of leeches in our hospital is centralised in the pharmacy from which the data on the numbers of leeches delivered to the clinical units, names of the patients and the number of leeches used per patient were obtained. We also performed a retrospective survey to assess the conditions of maintenance and delivery of the leeches in the pharmacy and in the clinical units that used the most leeches.

Results Over 8 years, 42 patients were treated with an average of 34 leeches (5–126) over 2.5 days (1–12). The mean age of the patients was 48 years (34–93). There was a slight male predominance. Leeches were most commonly used by the plastic and reconstructive surgery unit. The success rate of leech therapy was 71.4%. However, 57% of patients developed anaemia, and 16.7% revealed A. hydrophila infections. All isolates were ticaricillin resistant, three were also fluoroquinolone resistant with one involving an extended spectrum β-lactamase producing one.

Conclusion and relevance In the era of increasing antibiotic resistance and before use of medicinal leeches, prior screening of resistance by a local pharmaceutical team seems logical and necessary.

REFERENCES AND/OR ACKNOWLEDGEMENTS


No conflict of interest.

5PSQ-082 EVALUATING AN ELECTRONIC CLINICAL DECISION SUPPORT SYSTEM FOR DRUG–DRUG INTERACTIONS IN A LARGE ACUTE TEACHING HOSPITAL

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Background and importance Drug–drug interactions (DDIs) are common and can result in preventable harm. Clinical decision support systems (CDSS) embedded within electronic prescribing software (eg DDI alerting tools) may improve clinical decision making. Studies have shown that prescribers override up to 96% of CDSS alerts and have questioned the usefulness of alerting systems.

Aim and objectives The study’s objective was to evaluate the characteristics and override rates of DDI alerts following a recent implementation of a hospital wide electronic prescribing systems incorporating a DDI CDSS which was set to flag ‘major contraindicated’ drug combinations only.

Material and methods A retrospective analysis of DDI alerts generated by Cerner electronic prescribing software over a 6 week period in a haematology-oncology inpatient cohort was completed. A parallel review of DDIs highlighted by clinical pharmacists in the same patient cohort was undertaken and the results were compared.

Results There were 310 electronic DDI alerts generated. Of these, 58 alerts were redundant as they referred to duplicates within the same prescribing episode (n=22) or were not triggered by current medications (n=36). The remaining 252 alerts involved 38 individual medicines and 44 medication pairs. Antiemetic medications accounted for over 50% of alerts and QTc interval prolongation was the most frequently alerted drug interaction adverse outcome. In 44 instances (17%) either the original prescription or the interacting medicine was changed by the prescriber following the DDI alert, reflecting an override rate of 83% (n=208).

A total of 37 DDI alerts were flagged by clinical pharmacists in the study. There were 42 individual medicines and 37 medication pairs involved. In 5 instances (14%), a change was
made following the DDI alert. Thirty-one (84%) of the alerts flagged by clinical pharmacists did not trigger an electronic DDI alert.

Conclusion and relevance The volume and pattern of flagged DDIs varied between the electronic and pharmacist alerts. Override rates were high but consistent with the reported literature. Findings suggest changes which could be made to reduce the volume of redundant or irrelevant alerting.

REFERENCES AND/OR ACKNOWLEDGEMENTS
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5PSQ-083 A SYSTEMATIC RISK ANALYSIS METHOD APPLIED TO A STEAM STERILISATION PROCESS IN A TEACHING HOSPITAL

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Background and importance In the case of non-centralised sterilisation units, there is a lack of understanding of the effectiveness of different steam sterilisation processes. In such cases, the risk of failure is major. This may lead to the non-sterility of treated medical devices which can affect patient health.

Aim and objectives The aim of the study was to determine the risks related to the steam sterilisation processes in non-centralised sterilisation units of our teaching hospital according to a failure mode and effects analysis (FMEA) method.

Material and methods Healthcare professionals were recruited to form a multidisciplinary study team. They proceeded to build the process cartography and the cause–effect diagram. Then, they were divided into small groups, and each one worked on one step or field. By adopting brainstorming meetings, the groups defined all related failure modes that could occur, indicating causes and consequences. These failure modes were classified based on the criticality index (CI) calculated according to the following parameters: severity of the potential effect, detection probability and likelihood of occurrence. Prioritisation was carried out by adopting the median and mode values of CI as limits and pertinent corrective and preventive actions were then proposed.

Results A total of 135 failures modes were detected, accumulating 17,790 points of criticality. CI values ranged from 36 to 288. The step of autoclaving exhibited the highest median CI with value of 147. The highest CI was related to the failure mode ‘autoclave not qualified’ with a CI value of 288. Sixty-eight (67%) failure modes were considered as critical, 39 (22%) as failure modes to control and 28 (11%) as acceptable. After prioritisation, three main action were defined: writing of the documentary system, training of personnel and qualification of the autoclaves.

Conclusion and relevance The applied FMEA method was useful to prioritise actions in order to efficiently minimise risks related to the steam sterilisation process. Training personnel on steam sterilisation units strengthens their knowledge on hazards and good practices, and is essential to guarantee the safety of both personnel and patients.

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No conflict of interest.

5PSQ-084 POTENTIALLY INAPPROPRIATE PRESCRIPTIONS IN GERIATRIC HIV PATIENTS

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Background and importance The effectiveness of current anti-retroviral treatments has prolonged the survival of HIV patients, and with age, the prevalence of comorbidities increases. The new clinical conditions of these patients may cause potentially inappropriate prescriptions.

Aim and objectives The aim of this study was to identify potentially inappropriate prescriptions in a HIV population over 65 years of age and to verify differences between physicians’ prescriptions and actual patient receipt of medications.

Material and methods This was an observational study of elderly HIV patients (≥65 years) who collected antiretroviral treatment (ART) at the pharmacy of a third level hospital between June and November 2018. The electronic prescription was checked against what the patient reported taking, to be sure of the real treatment taken by the patient. The confirmed treatments were evaluated with STOPP and LESS-CHRON criteria.

Results Thirty patients met the inclusion criteria. Based on the STOPP criteria, de-prescription of one medication was detected in 63.3% of patients, and in 60.0% of patients with the LESS-CHRON model. The most frequent type of drug affected by both criteria were benzodiazepines, followed by antidepresants in the case of STOPP and antiaggregants in the case of LESS-CHRON. The total number of patients who may be candidates for de-prescription by meeting the criteria with one or the other method was 70%. The total number of drugs prescribed was significantly associated (p=0.008) with meeting de-prescription criteria. Discrepancies between physicians’ prescriptions and real patient takings were found in 23% of patients.

Conclusion and relevance There was a high prevalence of meeting de-prescription criteria in elderly HIV patients and a clear relationship between polypharmacy and de-prescription. Benzodiazepines were the most frequent drugs meeting the conditions of de-prescription. To obtain a complete record of a patient’s treatment, it is necessary to complement the electronic medical record with a suitable clinical interview. It is important to periodically re-evaluate the need for treatment in chronic patients, with special interest in high risk drugs in the elderly.

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