

**PS-011 IDENTIFYING AND REPORTING MEDICATION ERRORS: LEARNING FROM OTHER COUNTRIES**

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**Background** It is important to identify medication errors (MEs) in the healthcare system in order to be able to prevent them. Is there a possibility to combine forces and transfer strategies between countries?

**Purpose** Based on analyses of data in a defined medication error reporting system (MERS), strategies were shaped to reduce MEs. Further investigations looked for similarities in MEs from other countries to develop ways of transferring existing strategies between different healthcare systems.

**Material and methods** MEs were reported in an MERS from November 2014 to July 2016 in 4 (European) countries. The reported data were exported to Microsoft Excel and analysed for type and cause of error reported. The participating countries were compared, finding similarities. Existing strategies preventing MEs developed in one of the countries were discussed to outline possible ways to transfer them.

**Results** During the reporting period, 7107 MEs on every level were reported. The most frequent type of errors were reported in the areas of 'administration' and 'drug formulation', including preparation before application (7.6%). These were prevalent types of MEs in 3 of the 4 countries. Frequent problems were crushing or dividing of solid oral drug formulations, even modified release-systems. Mostly related drugs were modified release oral systems containing opioids, isosorbide mononitrate or metoprolol, mirtazapine in orally disintegrating tablets and proton pump inhibitors. In one of the countries a former analysis identified numerous reports with crushed or divided proton pump inhibitor tablets as well as crushed or divided modified release opioid drug formulations. Mostly there was 'lack of knowledge' as the leading cause of these errors, similar in 2 more countries. Therefore, there was a need to transfer established strategies to these countries. In these countries, a poster was made about the risks arising from crushing and dividing to raise awareness among healthcare professionals and patients. This poster has now been translated into English and can be easily transferred to project partners.

**Conclusion** Results from this analysis has enabled pharmacists to recognise similarities between countries. Based on these, opportunities were identified to transfer strategies between countries. Furthermore, it is essential to look for additional areas to compare and analyse in order to outline 'best practices' as transfer strategies between countries.

No conflict of interest

**PS-012 SURFACE CONTAMINATION IN A TEACHING HOSPITAL: A 6 YEAR PERSPECTIVE**

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**Background** Many cross sectional studies have been published about surface contamination with hazardous drugs in health-care settings.

**Purpose** The aim was to review the surface contamination of three hazardous drugs within a teaching hospital and comment on the different strategies put in place over the years.

**Material and methods** This was a descriptive, retrospective, longitudinal study. The study was conducted in a 500 bed mother-child teaching hospital. Closed system transfer devices are not used. 12 standardised sampling sites, 6 in pharmacy areas and 6 in outpatient patient care areas, were selected and collected every year. 12 additional points of measure were identified for 2 inpatient care wards that were sampled in May 2016. For each sample, a standardised surface of about 600 cm<sup>2</sup> was sampled with one wipe and quantified by ultra performance liquid chromatography-tandem mass spectrometry (UPLC-MS-MS).

**Results** A total of 72 samples (eg, 36 in pharmacy and 36 in outpatient care areas) were obtained between 2010 and 2016 for 216 analyses (3 drugs/sample tested). The proportion of positive samples was 50% (36/72) for cyclophosphamide, 32% (23/72) for ifosfamide and 19% (14/72) for methotrexate. There were a similar proportion of positive results in the pharmacy (35% (38/108)) than in the outpatient care areas (32% (35/108)). Cyclophosphamide concentrations varied from undetectable to 400 pg/cm<sup>2</sup>, from undetectable to 830 pg/cm<sup>2</sup> for ifosfamide and from undetectable to 660 pg/cm<sup>2</sup> for methotrexate. The median value of cyclophosphamide was 16.0 pg/cm<sup>2</sup> in 2010, 3.0 in 2012, 0.0 in 2013, 0.0 in 2014, 0.0 in 2015 and 1.7 in 2016. The 24 additional samples obtained in two patient care wards were all negative. Numerous factors may explain this low and reduced contamination, including targeted training, increased awareness, improved cleaning strategies and centralised priming of IV tubing in pharmacy hoods.

**Conclusion** This study provides a longitudinal perspective of the surface contamination of hazardous drugs in a teaching mother-child hospital. Every hospital should review its annual scorecard of contamination with a longitudinal perspective to minimise drug contamination. It is possible to contain surface contamination with hazardous drugs with different strategies.

No conflict of interest

**PS-013 MULTICENTRE STUDY OF ENVIRONMENTAL CONTAMINATION WITH CYCLOPHOSPHAMIDE, IFOSFAMIDE AND METHOTREXATE IN 66 CANADIAN HOSPITALS: A 2016 FOLLOW-UP STUDY**

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**Background** Oncology workers are occupationally exposed to antineoplastic drugs. This exposure can induce adverse health effects. In order to reduce their exposure, contamination on surfaces should be kept as low as possible.

**Purpose** To monitor environmental contamination with cyclophosphamide, ifosfamide and methotrexate in oncology pharmacy and patient care areas in Canadian hospitals. To describe the impact of some factors that may limit contamination.