Conformity of the drug-use process: a three-year assessment on healthcare units

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Purpose

Canadian pharmacy practice is governed by many standards (e.g. Medication Management Standards from Accreditation Canada, Practice Standards from Provincial Regulatory Authority). In order to ensure continued quality of care and taking into account the current normative obligations, we developed a set of conformity criteria for the drug-use process of healthcare units.

The aim of this project was to describe the conformity of healthcare units through an assessment tool over the last three years.

Methods

This is a descriptive and retrospective study.

The study was conducted in Sainte Justine Hospital, a 500-bed teaching hospital in Montreal, Quebec, Canada.

Following pilot visits on three healthcare units, an assessment tool was developed and pre-tested by pharmacy technicians.

The tool relied on a list of 26 criteria covering the following themes:

- Storage
- Waste
- Controlled substances
- Refrigerators
- Medication carts
- Automated medication dispensing cabinets
- Medication reconciliation
- Documentation
- Resuscitation carts
- Pharmacy department Intranet.

The conformity of the drug-use process was evaluated through direct observations by pharmacy students and pharmacy research assistants during a two-weeks round of healthcare units.

Levels of conformity per criteria and global conformity were calculated per year.

We compared the level of conformity between 2012 and 2014 using Chi-square and Fisher tests, where appropriated (theoretical effective <5). A p value inferior to 0.05 was considered significant.

Results

The three years results are presented in table 1.

A total of 26 criteria on healthcare units were assessed in 2012, 2013 and 2014. The global level of conformity was of 71% in 2012, 65% in 2013 and 78% in 2014.

The situation improved significantly for 5 criteria from 2012 to 2013:

- Presence of a bin for reusable drug returns (p=0.011).
- Presence of a waste bin for pharmaceutical waste (p<0.001).
- Medication carts cleanliness (p<0.003).
- Presence of automated medication dispensing cabinets documentation (p=0.012).
- Presence of patient’s resuscitation pre written order sheet prescription (p=0.001).

The level of conformity was not reduced for any criteria from 2012 to 2014.

The level of conformity remained low for 4 criteria, for example: absence of expired drugs (42% in 2012 and 35% in 2014), continuous monitoring of refrigerator’s temperature (30% in 2012 and 16% in 2014).

Conclusion

This study shows a high level of conformity of the drug-use process in a teaching hospital and the usefulness of a periodical evaluation of an assessment tool in unit of care. However, there are criteria where significant efforts are required to get higher conformity (e.g. absence of expired drugs, cold chain management). While decentralized pharmacists can contribute to direct patient care, hospital pharmacists should not neglect the whole drug-use process through assessment of the drug-use process.