

PHARMACEUTICALS INTERVENTIONS IN THE DRUGS DISPENSATION PROCESS BY AUTOMATED CABINETS IN A SPECIALTY HOSPITAL

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BACKGROUND

Appropriate, accurate and timely distribution of medicines to patients is a pharmacist's responsibility. Automated dispensing cabinets (ADCs) improve efficiency in distribution; but patient safety may be compromised if they are used incorrectly.

PURPOSE

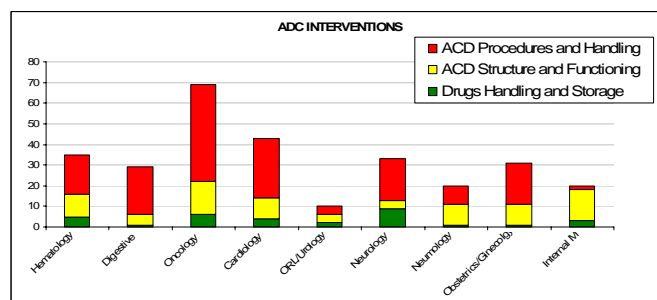
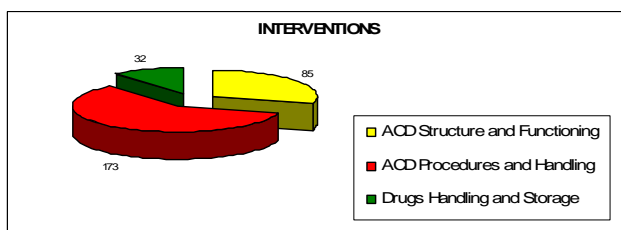
To analyse pharmaceuticals interventions in ADC dispensing, in order to adopt steps that improve patient safety.

MATERIAL AND METHODS

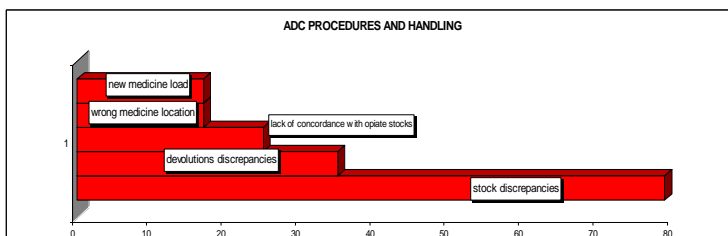
- A descriptive study was conducted in a 470 bed specialist hospital.
- Over 8 months (April-December 2013) pharmaceutical interventions in drugs dispensing to 9 infirmary units with ADC were collected.
- Interventions were made and recorded during ADC drug replacement in hospital wards, or during incident resolution at the pharmacy cabinet control point.
- All interventions made during the study period were analysed to determine their category and frequency.
- Interventions were recorded according Hernández and Poveda's classification of medicines errors in ADC.

RESULTS

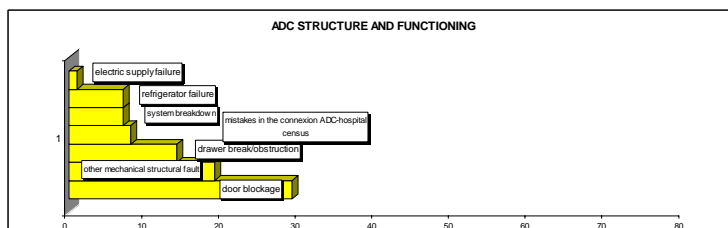
290 interventions were collected.



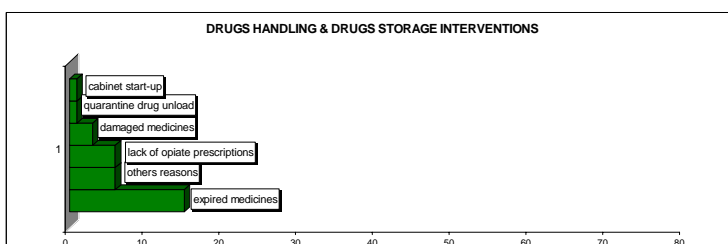
The most frequent type of Intervention was that related to incorrect ADC procedures and handling (59,7%). In this category, interventions were due to stock discrepancies, devolutions discrepancies, lack of concordance with opiate stocks, wrong medicine location, and new medicine load.



Another category identified was intervention related to the structure and functioning of the ADC (29,3%) and includes the following events: door blockage, drawer break/obstruction, other mechanical structural fault, mistakes in the connexion ADC-hospital census, system breakdown, refrigerator failure and electric supply failure.



The less frequent intervention categories were those related to inappropriate drugs handling and storage (11,0%) and included interventions caused by expired medicines, lack of opiate prescriptions, damaged medicines, cabinet start-up, quarantine drug unload, and others reasons.



CONCLUSIONS

- The most common interventions on automated dispensation process are related to inappropriate handling of cabinets.
- Therefore it's necessary to remind nurses periodically that correct handling of ADCs is essential to guarantee medicine availability and optimal storage, both necessary for a safe drug use.