Evaluation of the implementation of a centralized floor stock: what conclusions can be drawn?

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Background

One year ago, a centralized floor stock was implemented in a protected area inside the pharmacy of our psychiatric hospital (496 beds and places) to facilitate continuity of care. It allows nurses to get supplies of common medicines and medical devices during closing hours of the pharmacy. This floor stock was contained in a secured automated storage cabinet, requiring nurse badge identification, unit and patient name entry for any removal.

Purpose

The aim of this study was to evaluate the main drugs and medical devices taken by nurses, and to highlight benefits and limits of this system.

Material and Methods

Using the traceability software of the cabinet, all medicines and medical devices taken from the floor stock were systematically checked on the morning following removal and compared to prescriptions, during the year following its implementation.

Results

Centralized floor stock

- **Over one year**: 206 drugs taken from the floor stock
- Care units made no request to change the floor stock composition

**Benefits**

- Improving continuity of care, especially for hospital pharmacies with limited staff
- Nurses satisfaction: allows nurses to collect treatments when convenient, without having to summon the on-call pharmacist
- Clear decrease in the number of on-call pharmacists’ solicitations

**Main difficulties encountered:**

- Nurses apprehension about using the cabinet at the implementation, despite prior training and the existence of an instruction manual and a video tutorial
- Entry errors on the drug removal software: confusions between pharmaceutical forms (immediate release vs sustained release), molecule errors (amoxicillin vs amoxicillin + clavulanic acid, confusion between existing insulins)
- Some technical issues and manipulation errors

**Conclusion**

A centralized floor stock in an automated storage cabinet is an interesting approach to improve continuity of care. It allows nurses to collect treatments when convenient, without having to summon the on-call pharmacist. However, technical issues may affect the effectiveness of the system, and the risk of medication errors requires systematic verification of removals in regard of prescriptions. For these reasons, the centralized floor stock must stay closely supervised by pharmacists.