

ANALYSIS ON THE CAUSES OF STOCK-OUT IN SMALL AUTOMATED DISPENSING SYSTEMS

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Objectives

Small automated dispensing systems (ADS) have allowed to get better the hospital drug distribution process. Pharmacy Department is responsible for filling small ADS with medications in a timely manner, ensuring the continuity of care. The objective of this study was to analyse the causes of stock-out in small ADS and propose improvement actions.

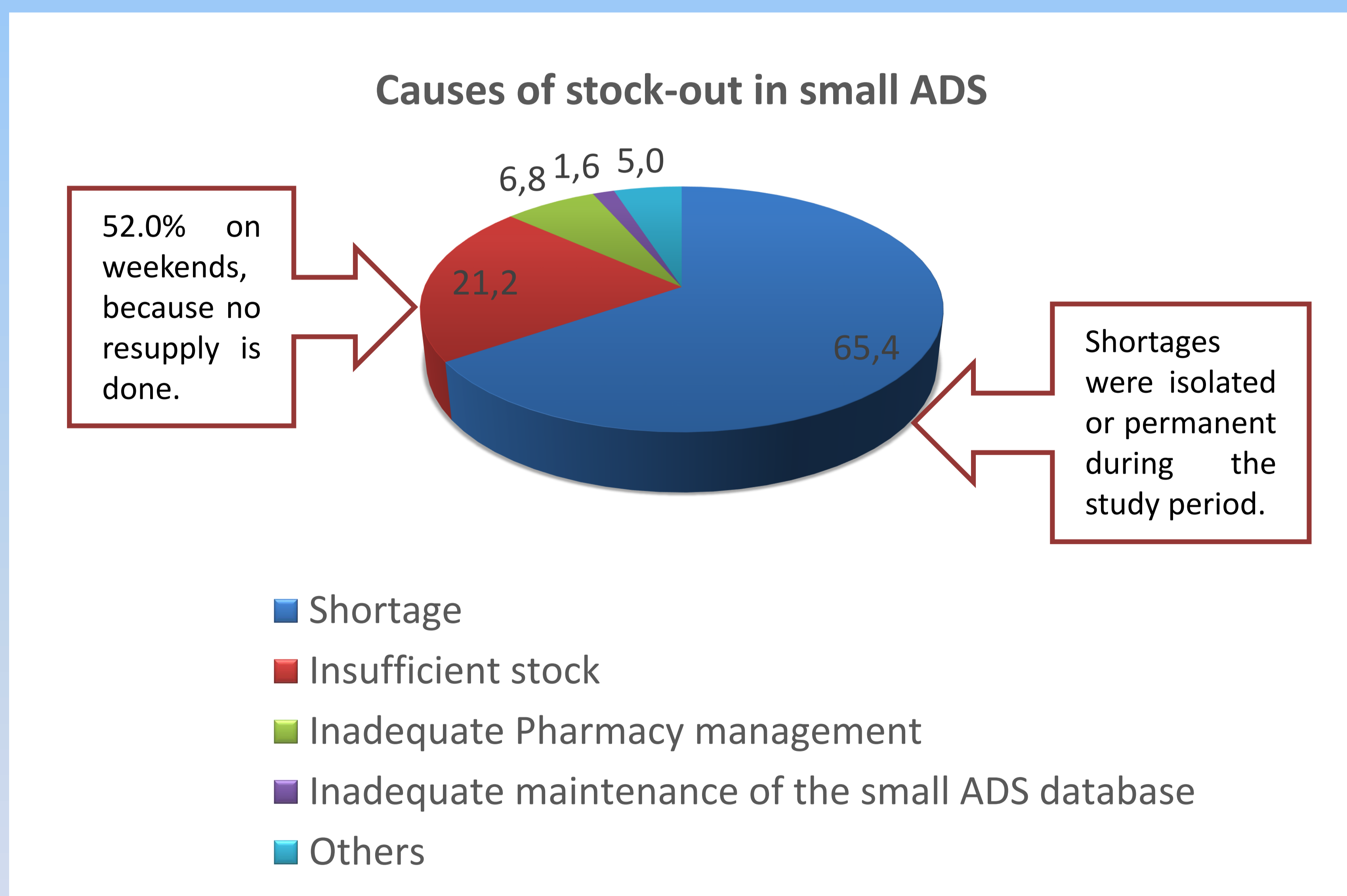
Study design

A prospective study was performed for a month (May 2015). Seven small ADS (Pyxis®) are allocated in five units at a tertiary hospital (Emergency Department, Post-operative Care Unit, Pre-hospitalisation Unit, Short Stay Unit and Neonatal Intensive Care Unit). Each day a list of stock-outs in the day before was obtained and classified by unit through the Web-Reporting® software, and the causes for each one were investigated. Five reasons were established:

- Shortage: Pharmacy supplier cannot provide the requested order.
- Insufficient stock: in a certain small ADS, fixed/agreed stock is not suitable for consumption.
- Inadequate Pharmacy management: when an order was not sent to the supplier, or the order was sent so late to avoid the stock-out; pharmaceutical dosage forms which require packaging, and this operation delayed the distribution process.
- Inadequate maintenance of the small ADS database: formulary and/or stock of drugs are not correctly updated.
- Others: stock-out caused by other reasons such as expired drugs, broken containers, inventory discrepancies, etc.

Results

- During the study period, a total of 482 stock-out were detected.
- Emergency Department and Post-operative Care Unit involved 36.3% each one, and both of them have two small ADS.
- These results were distributed as follows:



Conclusions

A high number of stock-outs occurred. The shortage of drugs was the main cause, which sometimes is not avoidable by pharmacists. To reduce other preventable causes, Pharmacy Department has planned different actions: 1) to readjust the locations and stocks of drugs, 2) to improve Pharmacy management, 3) to check and update the database and 4) to give training session for nurses to improve the use of small ADS.

Disclosure

Authors of this presentation have nothing to disclose.

