TIMES AND ERRORS FOR DISPENSING NARCOTICS DRUGS IN AUTOMATED SYSTEM VERSUS MANUAL SYSTEM


BACKGROUND AND IMPORTANCE

Narcotic drugs require a special control and monitoring by the Pharmacy Service to ensure their correct storage and dispensing. An integrated automated process (IAP) could promote a safer and more efficient process.

AIM AND OBJECTIVES

Describe and analyze drug replenishment times and dispensing errors through a manual process versus an IAP.

MATERIAL AND METHODS

- **Design.** Prospective observational study of one-month duration, divided in two periods (15 days).
- **Variables:**
  - Drug replenishment times described as: medians and interquartile ranges (IRQ).
  - Dispensing errors described as: percentage with respect to the total number of units.
- **Statistical method:** Mann-Whitney U and Chi-Square

RESULTS

Graph 3. Drugs replenishment times (seconds/unit)

- **Manual process:** 16.8 (IQR 3.6)
- **IAP:** 9.0 (IQR 2.4)

- **IAP**
  - 46.4% (p<0.05)

- **Manual process**
  - 56.0% (p>0.05)

CONCLUSION AND RELEVANCE

The implementation of an integrated automated process allowed to reduce replenishment times by 46.4%, as well as dispensing errors by 56%. This improvement provides a safer and more efficient drug replenishment circuit that should be implemented in routine clinical practice.