MEDICATION ERRORS IN UNIT-DOSE DRUG DISTRIBUTION SYSTEM: QUALITY CONTROL

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Background

The need to improve the quality of the unit dose dispensing system was detected due to the increase in errors.

Aim and objectives

Quantitative and qualitative analysis of errors in the dispensing of unit-dose drugs, to implement measures to reduce them.

Materials and methods

- Prospective study, two-month duration, in a tertiary hospital.
- The drug trolleys of two randomized nursing units chosen from 16 hospitalization units (589 beds) with unit-dose dispensing were reviewed daily.

Protocol for quality control

- Comparison of medication listings per patient with the drug content of the drug trolleys.

ANALYSIS DAILY :

QUANTITATIVE:

Error rate (number of dispensing errors for every 100 changes)

QUALITATIVE:

Type of error

ANALYSIS MONTHLY

Results

Median error rate

1,23 (RI:0,48-1,99)

- Month
  - First month: **1,61** (RI:1,13-3,07)
  - Second month: **0,45** (RI:0-0,91)
- Type of medication filling
  - Manual: **1,56** (RI:0,67-2,21)
  - Automated dispensing cabinets: **0,92** (RI:0,57-1,24)

Most repeated **type of error**		
Filling the drug trolleys with an incorrect number of units	Omission of introducing a medication	To introduce a medication not prescribed
44, 13% (n= 109)	17,81% (n=44)	13,77% (n=34)

Conclusions

1. A **reduction in potential dispensing errors** was achieved, as the median error rate decreases from 1.61 to 0.45 from the first to the second month.
2. Increasing **automated dispensing cabinets could help reduce errors**, as plants filled without the help of electronic systems have a higher median error rate (1.56 vs. 0.92).
3. There is a need to **educate** the pharmacy technicians about the impact of their work on the safety of hospitalized patient care, insisting on the need to check the number and name of the drugs introduced.

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