

Study of pharmacist's contribution to medicines reconciliation in critically ill patients

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Background: medication reconciliation in intensive care units (ICU) is essential in preventing medication errors. Medication reconciliation errors have been found to occur mainly in the transition of care.

Objective: develop and evaluate a medication reconciliation program in critically ill patients.

Methods:

Prospective study. Discrepancies between chronic treatment and treatment prescribed by the hospital physician in patients admitted to the ICU were analysed. Medication histories were obtained from medical history and patient interview. In case of discrepancies, the ICU physician was contacted.

Results:

50 patients were studied (mean age 62.7 years, SD 13.2).

60% of patients showed at least one reconciliation error.

The average number of drugs involved in reconciliation errors was 1.8 (SD 1.2) per patient.

A. Discrepancies found

Discrepancies	Number of discrepancies (%)
Omission	40 (74%)
Discrepancies in the frequency	5 (9%)
Incorrect drug	5 (9%)
Incorrect dose	4 (8%)
Total	54 (100%)

B. Drugs involved in the discrepancies observed

Drug	% of cases
Antihypertensives	37%
Bronchodilators	9%
Diuretics	7%
Statins	6%
Anti-clottings	6%
Hypnotics	4%
Vitamins	4%
Anti-prostatics	4%

C. Pharmacist interventions

Pharmacist intervention	Number of discrepancies (%)
Addition of an omitted drug	35 (66%)
Dose adjustment	5 (9,4%)
Dose clarification	4 (7,6%)
Addition of an omitted drug + Dose clarification	4 (7,6%)
Stop drug	3 (5,6%)
Change of drug	2 (3,8%)
Total	53 (100%)

Pharmacists made interventions in the 98% of discrepancies.

81% of recommended interventions were accepted by ICU physicians.

Most rejected interventions were due to the patient's clinical status (70%).

Conclusions: critically ill patients showed a high incidence of medication reconciliation errors. Most reconciliation errors consisted of omissions of chronic medication and involved antihypertensive drugs. 81% of pharmacist interventions were accepted. Medication reconciliation could reduce medication errors in critically ill patients and should be incorporated into the daily routine of the pharmacist responsible for the unit.