

# Influence of integration of a pharmacist in medication errors in critically ill patients

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## WHAT WAS DONE?

A clinical pharmacist was integrated on a full-time basis in the multidisciplinary team of an intensive care anesthesia unit.

## WHY IT WAS DONE?

To determine the incidence of medication errors in our environment and implement enhancement systems trying to prevent them, which is a priority for the improvement of the drug treatment process in critically ill patients.

## HOW IT WAS DONE?

The project was carried out in 3 different stages:

• **First stage:** a prospective observational study was carried out during one month, in order to detect medication errors in Anesthesia ICU and to determine the baseline situation before the pharmacist's intervention. In this stage, **36.27% errors** were detected, being Category C of the National Coordinating Council for Medication Error Reporting and Prevention (NCCMERP) a 61.63% of them.

• **Second stage: (Intervention stage)** During 10 months, the pharmacist reviewed the prescriptions of all patients admitted in the Anesthesia ICU unit performing the appropriate interventions over medication. Furthermore, to educate physicians and nursing staff, we organized educational meetings, and also pharmacotherapeutic protocols and guidelines of medication administration were created to standarize clinical practice. Finally, a system for reporting medication errors was introduced.

• **Third stage:** a prospective observational study was carried out for a month in order to detect medication errors after pharmacist's intervention. In this stage, **5.9%** of errors were detected, 68.4% of them of Category C NCCMERP.

## WHAT WAS ACHIEVED?

- Medication **errors** were **reduced by more than 30%**.
- A pharmacist is now part of the **multidisciplinary team** in a critical care unit.
- The experience has been broadcasted at the national level to promote the implementation of clinical pharmacists activities in our environment.

## WHAT IS NEXT?

We are still working on the same areas to improve safety in drug therapy in critically ill patients.

Currently, improvement measures that are being developed are: new pharmacotherapeutic protocols specifically for this unit, drugs and drug-diluent compatibility guidelines, performing new training sessions, standarize medication kits in operating rooms and implementation of the computerized prescription and a new labeling system of syringes.

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