Prevention of Medication Errors: an Observational Study

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BACKGROUND: Medication errors represent an important problem for patient’s safety and have consequences on Healthcare services. We used an observational national multicentre study to monitor the medication use process in wards as a tool to control and to prevent these incidents.

PURPOSE: To improve medication use process in our hospital (third level hospital).

METHODS: Prospective observational study not disguised using the modified Barker-McConnell method. Nursery Staff was observed since preparation of patient’s medication until administration in patient’s room. (6 months)

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First, we conducted a pre-study to estimate the medication error rate in our hospital. According to this rate, we calculated the number of observations required to obtain a representative sample of studied population. Each drug administered to a patient was reported as an observation. Study includes checking of the prescription validation process in pharmacy as well as the original medical prescription, in order to analyse the complete medication use process.

RESULTS: 1167 observations in 297 patients

Mean age 72.1 yrs (SD 15.4) 34.1% > 80 yrs 52.2% women

The error rate was 14.8% (173 errors/1167 obs.)

The distribution of detected errors was:

CONCLUSIONS: The observation method used to monitor drug administration by nurses revealed as a good system to study the actual state of medication use process at the hospital. Helped to identify weak points in the process which should be changed in order to avoid medication errors and improve patient’s safety.