Our institution implemented the use of pre-designed labeling of intravenous drugs and fluids, administration routes and infusion pumps of to prevent medication errors” Morales-González and Galiano Gálvez (2017).

Abstract:

INTRODUCTION: Our institution implemented the use of pre-designed labeling of intravenous drugs and fluids, administration routes and infusion pumps of to prevent medication errors.

OBJECTIVE: To evaluate the effectiveness of predesigned labeling in reducing medication errors in the preparation and administration stages of prescribed medication in patients hospitalized with invasive lines, and to characterize medication errors.

METHODS: This is a pre/post intervention study. Pre-intervention group: invasively administered dose from July 1st to December 31st, 2014, using traditional labeling (adhesive paper handwritten note). Post-intervention group: dose administered from January 1st to June 30th, 2015, using predesigned labeling (labeling with preset data-adhesive labels, color-grouped by drugs, labels with colors for invasive lines). Outcome: medication errors in hospitalized patients, as measured with notification form and record electronics. Tabulation/analysis Stata-10, with descriptive statistics, hypotheses testing, estimating risk with 95% confidence.

RESULTS: In the pre-intervention group, 5,819 doses of drugs were administered invasively in 634 patients. Error rate of 1.4 x 1,000 administrations. The post-intervention group of 1088 doses comprised 8,585 patients with similar routes of administration. The error rate was 0.3 x 1,000 (p = 0.034). Patients receiving medication through an invasive route who did not use predesigned labeling had 4.6 times more risk of medication error than those who had used predesigned labels (95% CI: 1.25 to 25.4). The adult critically ill patient unit had the highest
proportion of medication errors. The most frequent error was wrong dose administration. 41.2% produced harm to the patient.

CONCLUSIONS: The use of predesigned labeling in invasive lines reduces errors in medication in the last two phases: preparation and administration.

Reference:


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