Introducing a preformatted medical order sheet and giving a course to decrease prescription errors in newborns

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Background

Prescription errors are common in neonatal intensive care units (NICU). Computerized physician order entry (CPOE) is one of the most effective interventions to decrease these errors but its implementation is expensive and time consuming. Completion of CPOE in our NICU is expected within a few years. Meanwhile, alternative options are necessary in order to improve the quality of prescriptions and to decrease medication errors.

Objectives

The aim of this study was to assess whether a preformatted medical order sheet (PMOS) and an education teaching programme (ETP) made an impact on the quality of prescriptions and on the frequency of errors during the prescription stage.

Method

A two-phase observational study was conducted in an 11-bed NICU. This study consisted in two four-month consecutive phases, a pre-intervention Phase 0 and a post-intervention Phase 1.

Errors were identified each morning during prescription process (medical round), using the taxonomy of The National Coordinating Council for Medication Error Reporting and Prevention. Error rates between Phase 0 and Phase 1 were compared with a χ² test.

Results

83 patients were included in Phase 0 and 81 in Phase 1. 505 prescriptions were analyzed in Phase 0 and 523 in Phase 1.

Discussion - Conclusion

This cheap and simple method to implement interventions can improve the completeness and the intelligibility of prescriptions and decrease medication errors. This method has the advantage that it can be adapted to any medical care unit and should provide either a transitional improvement phase before the expensive and time consuming CPOE, or a promising alternative to the latter.

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