

14 Evaluation of medication information at discharge from hospital

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Background and Objective:

The Norwegian patient safety program strongly focuses on safe medication use. One of the recommended actions is to focus on medication reconciliation at discharge from hospital. At Ålesund hospital (medical department) two interventions have been carried out: 1) Implementation of a template of structured discharge information (June 2010) and 2) Introduction of a computerized physician order entry (CPOE) system (March 2013). Both were expected to improve the quality of the medication information at discharge. In this study we investigated how the medication information changed during the period of these two interventions. In addition we explored physicians' perceptions of medication information at discharge.

Setting and Method:

We extracted *quantitative data* at five points of time from the electronic health record (Ålesund). Medication information was evaluated according to the national patient safety program scoring tool for medication information at discharge. The five points of time were chosen to make quality measures both before and after each intervention. We collected *qualitative data* through nine focused interviews of physicians from medical departments at Ålesund Hospital and at St. Olavs Hospital.

Main outcome measures:

Quality of medication information at discharge both to 1) the next level of care and to 2) the patients, were represented by a score (0-16 points) and changes in total score were measured. In addition the transcribed interviews of physicians were analyzed concerning perceptions of medication information at discharge.

Results:

In total, 124 discharge letters to next level of care and 95 discharge letters to patients were evaluated. For both groups the scores in the period after introduction of the CPOE system was significantly higher compared to the other four periods, ($P < 0.001$). No improvement was observed due to implementation of the standard template. The physicians expressed various opinions concerning the potential value of CPOE. In order to assure that correct and updated medication information always is available for health care personnel responsible for the patients' treatment, a need for more cooperative digital systems between the care levels was pointed out. The physicians agreed that it was of most importance to inform the patients about new medications and changes in existing medications in addition to compiling a correct medication list at discharge.

Conclusions:

Introduction of a CPOE system significantly increased the scores of written medication information at discharge, indicating that quality increased. This was not the case for the template for structured discharge information. According to hospital physicians, a correct and well-presented medication list combined with oral information, as well as more cooperative digital systems in-between health care levels are factors important for safe medication use after discharge.