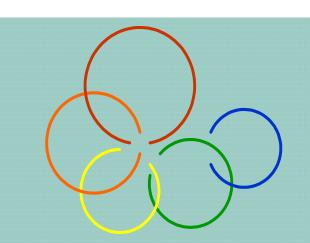


Implementation of front-line clinical pharmacy in an emergency department



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Background:

There is strong evidence supporting that pharmacist involvement strengthens quality of the medication process. There is also evidence indicating that many emergency admissions among the elderly are medicine related. Hillerød Hospital is chosen to perform an implementation study of front-line-clinical pharmacy in an Emergency Department. Hillerød Hospital is a mid-size teaching hospital in the Capitol Region of Denmark.

Purpose:

The purpose of the study is to investigate how front-line clinical pharmacy can be implemented in a Danish Emergency Department.

Materials and method:

The implementation study is designed as an action-research project using "Model for Improvement" as the driver methodology. The task is to implement pharmacist driven medication reconciliation and medication review at admission of patients over 50 years of age receiving more than five prescribed drugs. The pharmacists produce an updated medication status before physicians see the patient. The pharmacists document problem-oriented findings and recommendations in the patient record and inform clinicians directly in urgent cases. The evaluation of implementation will be based on; audits of 10 patient records every fortnight to monitor if the pharmacist's medication reconciliations are used by the physicians, sequential analysis of recommendations (sample; recommendations made in 14 days recorded every 3 months), qualitative analysis of pharmacist records and finally merging of all PDSA supporting the implementation process.

Method triangulation

Focus group interview With nurses in the Emergency Departement.

Descriptive study

A descriptive study is used to summarise demographic data, describe the intervention and the drug related problems identified. The evaluation is based on data from 5 sequences of pharmacists notes covering each 2 weeks. The descriptive study shows the drug related problems identified, the information sources used in the medication reconciliation and characterize the patient population.

Focus group interview With physicians in the

Emergency Department and other departments in the hospital.

Breakthrough method

The Model of improvement, developed by IHI, is the driving methodology. Both the implementation strategy and the evaluation is based on the model. The most frequent used tool is the PDSA (Plan – Do – Study – Act), which allows the team, to test changes in a small scale, before implementing in large scale.

Final project evaluation

Audit method

The audit method is used to monitor if the pharmacist's medication reconciliation are used by the physicians. Both a quantitative and a qualitative assessment is made. The goal is that 80 % of pharmacist's medication reconciliations are used. It is measured if the goal is reached. If not reached the reasons for this are identified and analysed.

Results:

The pharmacists have adjusted known models for medication reconciliation and medication review to the acute care setting. Up to 90 % of pharmacists' medication reconciliations are used in physicians' management plan for their patients. On average the pharmacists find 1.3 drug related problems per mediciation review. The implementation process is continuously supported by PDSA's and input from the ongoing qualitative analysis.

Conclusion:

A close collaboration between pharmacy managers and clinicians has formed a successful basis for coordinating and evaluating the task. Method triangulation is used to evaluate the implementation process.