

Good Practice Initiative:

Medication reviews conducted by clinical pharmacist in emergency ward

**E. Celikkayalar, E. Suvikas-Peltonen, J. Lohikoski, J. Palmgren.
Satakunta Central Hospital, Pharmacy Services, Pori, Finland**

Background: Emergency departments (ED) have serious medication safety concerns. Physicians and nurses may not review medication charts regularly. As we started a clinical pharmacy service in ED, one of the most important tasks of the clinical pharmacist was to review daily medication charts of newly admitted patients in ED ward.

Pilot study: A total of 855 adult patient admissions were reviewed prospectively for five months. Clinical pharmacist informed physicians on a possible change to be implemented in patients' medication regimen. A total 94 medications regarding 67 patient cases (*all were over 65 years old*) were discussed. 62% (n:58) of the pharmacist's recommendations were implemented. Changes in medications included 20 drug interactions, 14 inappropriate drug dosages, 8 inappropriate duration of drug treatments, 6 medications without indications, 6 duplications, and 4 missing medicines. Majority (66%) of the implemented changes in medications were related to NSAIDs and anticoagulants (risk of bleeding), and drugs with anticholinergic adverse effects e.g. longer acting benzodiazepins (risk of dizziness and fall).

Medication reviews are now being conducted by our pharmacist routinely every morning from Monday to Friday in our ED ward. Cases requiring a change in the medication regimen are being detected in approximately one in ten of the reviewed patients. Over half of the proposals for a change in medications are routinely being implemented by physicians based on our medication review. Before our intervention started, based on our knowledge, very little amount of medication changes were being applied probably because of the busy schedule of the physicians.

Conclusion: We recommend our initiative to others colleagues. The role of ED pharmacist is very important on detecting and recovering possible errors in medication use that might lead to adverse drug events, and finally lead to a preventable hospital admission especially among elderly patients.

Costs of our clinical pharmacy service is covered from the budget of emergency department unit. In the future, cost-benefit research is needed to estimate the value of the clinical pharmacy service also from the economical aspect.

No conflict of interest

Email address of the presenting author:

ercan.celikkayalar@satadiag.fi