Medication errors in prescribing antithrombotics for patients admitted to the hospital in the weekend. A pilot-study.

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Aim and Objectives

Improvement in medication transfer and prescription of antithrombotic.

(*) Involved risk factors in this study:
1. the use of antithrombotics
2. medication transfer
3. acute admission in the weekend

Measurement

Prescription errors antithrombotics (n=30) A (*) H D
Administrative/procedural (3) incomplete communication–intern 2 1 -
Dosing (7)
underdosing antithrombotic - 2 -
overdosing antithrombotic 1 2 1
no dosing 1 - -
Therapeutic (18)
not indicated prescribed antithrombotic 3 4 -
indicated not prescribed antithrombotic 3 6 -
wrong combination of antithrombotics - - 1
interaction, wrong handling 1 - -
Transmural (2)
at discharge no continue of antithrombotic - - 1
at discharge incomplete communication - - 1

A = on Admission, H = during Hospital stay, D = at Discharge

Results

In this retrospective pilot study 44 patients were selected by the pharmacy technician. All of these patients used antithrombotic therapy (started at home or in the hospital) and were admitted to our hospital through an emergency room visit. In 20 of the 44 patients (45%) medication errors in prescribing antithrombotics occurred. In total 30 medication errors were found.

The most frequent medication error took place on admission or during hospital stay in the therapeutic category. Mainly reported errors were: the antithrombotic was not prescribed or the prescribed antithrombotic was not indicated.

Although the number of patients in this study was small and not every medication error will cause harm, the high proportion of patients with a medication error gave rise to discuss the data in the multidisciplinary antithrombotic team.

It was suggested to introduce fixed medication orders for antithrombotics, to help the physician to prescribe the right and indicated antithrombotic. Furthermore education on the use of antithrombotic therapy for physicians and pharmacy technicians could help to improve the prescription of the right antithrombotic.

Conclusions

We conclude that a considerable amount of medication errors occur in prescribing antithrombotics for patients admitted to the hospital through the ER in the weekend. Because only a small group of patients was involved in this pilot study, more patients will be included in the future. After this, appropriate improvements for prescribing antithrombotics can be introduced such as implementation of fixed medication orders in the CPOE and education concerning antithrombotic therapy.

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