Abstract Submission for Lyon

Patient related services (PRS)

ESCP10LYON-1784

Influence of a medication history and a pharmaceutical opinion at admission of geriatric hospitalized patients on inappropriate drug prescribing

A. Samalea Suarez [1], J. Petermans [2], T. Van Hees [3,*]

[1]Department of Clinical Pharmacy, [2]Department of Geriatrics, CHU of Liège, [3]Department of Clinical Pharmacy, CHU of Liège, University of Liège, Liège, Belgium

Is this work original?: Yes

In case that your work will be accepted for publication in the congress, please choose in which of the following ways would you like to present it: : As a poster

Introduction: Adverse drug events are very common in elderly and are a public health concern. It's possible to limit the adverse effects of medication through appropriate prescribing. Specific tools, such as lists of Beers and Laroche are usefull to assess the inappropriate character of medications in elderly patients.

The purpose of this study is to evaluate the influence of a medication history and a pharmaceutical opinion underlining potentially inappropriate prescriptions realized by a pharmacist at the admission of geriatric patients in a teaching hospital on inappropriate drug prescribing at discharge.

Materials & Methods: Prospective study with historical control.

Treatments at admission and discharge for patients hospitalized between October and December (2008 = historical control; 2009 = intervention) in the geriatric ward of the University Hospital of Liege were reviewed. All patients coming from the home and consuming a minimum of 3 drugs at arrival at the hospital were eligible. Prescriptions were considered potentially inappropriate if they were included on a pre-established list, based on the lists of Beers and Laroche. Data on treatment at admission were collected from the computerized medical record for the historical group and from the medication history realized by the pharmacist for the intervention group. Medications at discharge for the 2 groups were collected from the medical record.

Results: 50 patients were recruited in each group. The mean age (82.9±6.0) and distribution men/women (34/66) are similar between groups.

The average number of drugs at admission and discharge does not differ between both groups (Admission: 7.7±2.9 vs. 8.4±3.2, p = 0.26; Discharge: 8.2±3.0 vs. 7.7±2.5, p = 0.33). However, there is a reduction in the number of drugs between admission and discharge in the intervention group (0.52±2.6 vs. -0.72±2.9, p = 0.03).

The average number of potentially inappropriate medications at admission is similar between both groups at admission but significantly decreases at discharge in the intervention group (Admission: 1.2±1.02 vs. 1.1±1.02, p = 0,78; Discharge: 0.94±0.82 vs. 0.56±0.54, p = 0.02). The reduction of potentially inappropriate medications between admission and discharge is significant in both groups, but greater in the intervention group (2008: p = 0.04; 2009: p <0.0001).

The median length of stay is also reduced (17.5 vs. 13 days, p = 0.008).

Discussion, Conclusion: These results demonstrate the added value of a medication history and a pharmaceutical opinion at admission on the quality of drug prescription at geriatric hospitalization discharge.

The influence on the length of stay will be analyzed more in details in further work.

This expertise contributes significantly to support multi-disciplinary approach of fragile elderly patient.

Bibliographic references: Fick DM et al.— Updating the Beers Criteria for Potentially Inappropriate Medication Use in Older Adults: Results of a US Consensus Panel of Experts. Arch Int Med, 2003, 22, 2716-1724.

Laroche ML et al.— Médicaments potentiellement inappropriés aux personnes âgées : intérêt d'une liste adaptée à la pratique médicale française. Rev méd int, 2009, 7, 592-601.

Keywords: geriatrics, Inappropriate medications, length of stay, medication history, Pharmaceutical Care