

# IMPACT OF OPTIMIZING PRESCRIPTIONS TO REDUCE THE RISK OF FALLS IN ELDERLY PEOPLE

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## Background

Increase of life expectancy, polyopathy and frailty raise the risk of falls in elderly people, leading to dependence and death. Some studies have shown a link between inappropriate prescriptions and falls.

## Purpose

The main objective of this study was to evaluate if we could reduce falls and potentially readmissions by optimizing the drugs prescriptions in elderly people.

## Materials and Methods

From May to December 2011, we enrolled patients admitted for falls in a geriatric post-acute care unit. For each patient, we detected potentially inappropriate medication (overuse, misuse and underuse) according to the patient's medical history.

Then, we suggested drugs modifications to the general practitioner (GP). Three months after discharge, we phoned to the patients or to the GPs to know if the medical suggestions had been respected or not, and if patients had fallen again.

## Results

172 patients (men : 35%, women : 65%, average age : 85 years old) have been admitted for falls. 86% of the patients were living at home. 96 falls were potentially due to medication. Medications involved with falls risk were essentially diuretics, benzodiazepins, calcic inhibitors, antiarrhythmics, sartans, anticholinesterasic.

The usual modifications affected diuretics, benzodiazepins, anticholinergics, addition of vitamino-calcic supplements, osteoporosis treatment, and the use of stockings.

Among patients called three months later, 74% of the suggestions were still respected, but 29 % of the patients had fallen again. There was no difference in the number of falls for patients whom the modifications had been respected and those whom had not been.

172 patients admitted for falls (geriatric post-acute care unit) over a period of 7 months

96 falls in relation with medication (iatrogenic or mixt cause), leading to pharmaceutical suggestions

Phone call 3 months later :  
Pharmaceutical interventions fates / New fall?

26 patients lost

11 patients dead

59 patients analysed :  
28 iatrogenic falls, 31 falls from mixt cause

17 new falls over the 3 month-period

Recommendations had been applied for 13 patients

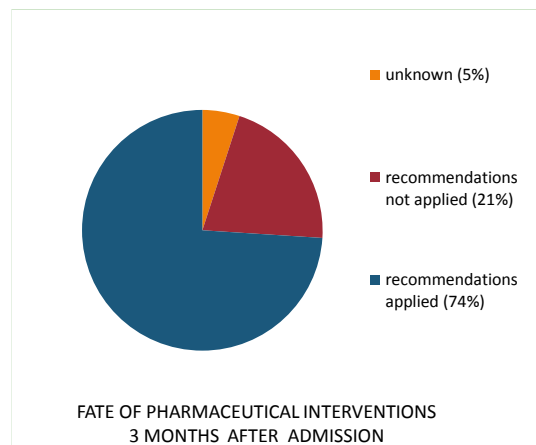
Recommendations had not been applied for 4 patients

5 falls from iatrogenic cause

8 falls from mixt reasons

2 falls from iatrogenic cause

2 falls from mixt reasons



## Conclusion

This study suggested that falls were more frequent among patients living at home; a work needs to be done to secure elderly people's house. The importance of inappropriate prescriptions on fall events was also underlined. Falls occurred because of multifactorial mechanisms : inappropriate home fittings, sarcopenia, neurodegenerative diseases, inappropriate medications. One way of decreasing the fall risk in elderly is medication improvement.