

# Effects of pharmacist's interventions on inappropriate prescribing in a geriatric psychiatry unit

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## Introduction

A prospective observational study was conducted in 2012 in order to evaluate prescription of potentially inappropriate medication (PIM) in a geriatric psychiatry admission unit (GPU) of Lausanne University Hospital [1]. The STOPP/START criteria, an explicit screening tool, were used to detect PIM [2]. This observational study showed a high number of PIM. Therefore, introducing a clinical pharmacist in this unit has been suggested as a strategy to improve quality of prescribing by reducing PIM.

## Purpose

- **Primary outcome:** Assess the impact of a clinical pharmacist on PIM by measuring acceptance rate of the pharmacist's interventions.
- **Secondary outcome:** Compare STOPP/START criteria obtained during the observational study to those of the interventional study.

## Methods

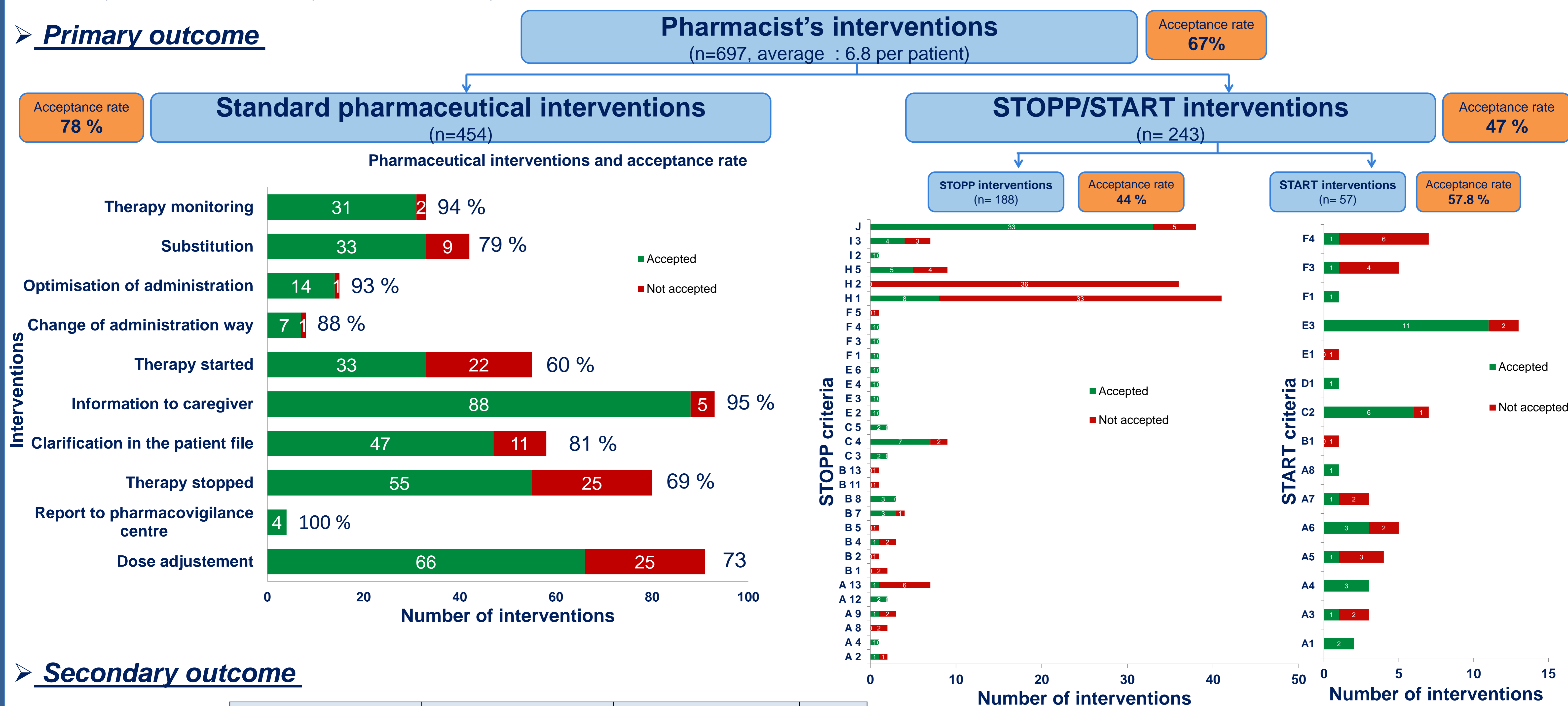
An intensive clinical pharmacy service was implemented in this GPU (16 beds) in order to optimize drug prescription. A clinical pharmacist was integrated in the multidisciplinary team and attended weekly different meetings (pharmacotherapy discussions, new cases ward round, nursing staff reports). A complete medication review have been performed daily (medical history, medication reconciliation, checking for interaction, consultation of the electronic medical notes, laboratory data, detecting PIM with STOPP/START criteria).

These activities could generate pharmacist's interventions to physicians when drug-related problems were observed. Interventions could result from STOPP/START criteria or from standard pharmacist examination. They were categorized using the Swiss Association of Public Health Administration & Hospital Pharmacists classification [3] and communicated to the physicians during meetings, after private discussion or by email. The impact of this activity was measured by the intervention acceptance rate (number of interventions accepted/total number of interventions).

## Results

The study took place from July 2013 to February 2014. 102 patients were included.

### Primary outcome



### Secondary outcome

	STOPP Admission (number/patient)	STOPP Discharge (number/patient)	Reduction observed (%)	p
Observational study	1.65	1.58	3.7 %	0.54
Interventional study	1.45	1.10	24.3 %	0.009

	START Admission (number/patient)	START Discharge (number/patient)	Reduction observed (%)	p
Observational study	0.71	0.57	19.7 %	0.001
Interventional study	0.64	0.32	49.2 %	10 <sup>-6</sup>

This interventional study shows a significant difference between admission and discharge for both STOPP and START criteria. As this has not been observed in the previous study, this difference may be attributed to pharmaceutical's interventions.

## Discussion - Conclusion

This study showed a good integration of the clinical pharmacist into the healthcare staff with a satisfactory level of acceptance rate. However, a difference of acceptance between standard and STOPP/START interventions was observed. This difference may be related to the limitations of this explicit tool in geriatric psychiatry. Indeed, some criteria such as STOPP H1/H2 (benzodiazepines and neuroleptic drugs that adversely affect fallers) cannot easily be reduce in a geriatric psychiatry admission unit.

### References

- [1] Weibel M.-L. et al. [http://www.chuv.ch/pha/pha\\_home/pha-recherche/pha-recherche-contributions/pha-recherche-contributions-travauxdiplomes.htm](http://www.chuv.ch/pha/pha_home/pha-recherche/pha-recherche-contributions/pha-recherche-contributions-travauxdiplomes.htm)
- [2] Gallager et al. Int J Clin Pharmacol Ther. 2008;46(2):72-83.
- [3] <http://www.gsasa.ch/pages/activites/activites-cliniques/?oid=1587&lang=FR>