# CONTINUING EVALUATION AND IMPROVEMENT OF ACTIVITIES OF CLINICAL PHARMACISTS FOR OLDER INPATIENTS

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## INTRODUCTION

Controlled studies have shown that collaboration with clinical pharmacists (CP) for frail older patients can improve the quality of prescribing and patient care (1, 2, 3). The role played by the CP in geriatrics units is important mostly because patients usually take a lot of medicines. The role of CP is to reduce this polymedication (overuse) and optimize other treatments (underuse, misuse). In our 428-bed teaching hospital, a CP (0.8 full-time equivalent) has been working on the acute geriatric unit since 2009. We developed a tool in 2010 to evaluate CP activities on a regular base (3 times a year). The objective is to summarize the indicators used to evaluate CP activities and to show the results for our geriatric unit (27 beds) in 2014.



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### METHOD

#### **Measures of activity**

a) Number and percentage of patients admitted on the unit and cared by the CP (automated measures)

b) Number (automated measures) and characteristics of interventions (i.e. proposals to modify the therapy in order to improve quality, safety or to decrease costs) performed by the CP (data collected 3 weeks/year)

- Rate of acceptance of interventions (data collected 3 weeks /year)
- d) Time spent on clinical activities on the ward vs other duties (data collected 3 weeks/year)
- e) Number of educational presentations in relation to polypharmacy (yearly measure)
- f) Satisfaction of doctors and suggestions for the future(hospitalwide survey)

# RESULTS

- a) The pharmacist took care of 475 patients in 2014 (379 in 2011), representing 90% of patients admitted on the unit. 95% of followed patients have a medication chart list reconciled upon discharge.
- b) 1604 interventions were made in 2014 with stopping a medication as the most frequent suggestion (Figure 1).
- c) 90% of interventions were accepted by the prescriber.
- d) 75% of time spent on clinical activities including 4 hours a week attending the multidisciplinary round (See also Table 1) vs 25% on other activities with not direct impact on patients (meetings, student supervision, article's reviews...). In 2011, the distribution was 60% vs 40%. This rise in clinical activities and giving up daily medical tour (considered as time consuming and not efficient), allowed the CP to follow more patients (see above).
- e) In 2014, the pharmacist performed 4 educational presentations dedicated to polypharmacy in older people, or "how to better prescribe". The audience was mainly from the primary care setting.
- f) Overall satisfactions of doctors were excellent (median at 5/5). Most of them are "junior doctors" and consider the collaboration with the CP as an added value for their cursus. Chief physician suggest optimizing collaboration for the discharge summary.

Table 1: Clinical activities on the acute geriatric unit

Activity	Average time spent
	per patient (minutes)
Medication history on admission	
(data-gathering, notification in	
medical record and opinion)	42
First analysis of medical record and treatm	ent 21
Treatment follow-up during hospital stay	
(analysis of blood tests, clinical results and	
prescription changes)	9
Discharge management (medication	
reconciliation and information for the patie	ent
and/or family and general practitioner)	59

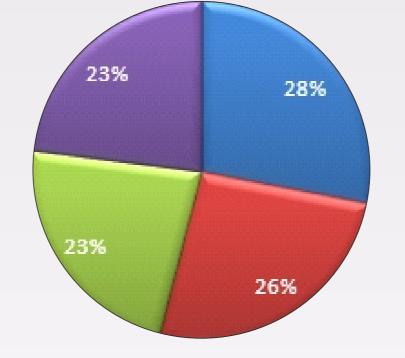


Figure 1: Interventions Stopping treatment ■ Starting treatment\*

- Decreasing or increasing dose Other (changing formulation, route or time, follow up care)
- \* Over a third of new medications are vitamins for some weeks, antibiotics to finish off, or if needed treatments

#### References

- (1) Appropriate prescribing in elderly people: how well can it be measured and optimized? Spinewine A, Schamder KE and co. Lancet 2007; 370:
- (2) Effect of a collaborative approach on the quality of prescribing for geriatrics inpatients: a randomized controlled trial. Spinewine A, Swine C and co. JAGS 2007; 55: 658-65
- (3) The impact of a structured pharmacist intervention on the appropriateness of prescribing in older hospitalized patients; O'Sullivan D, O'Mahony
- D, Drugs aging 2014, 31: 471-81

## CONCLUSION

CP has a major role to play to minimize polymedication and optimize treatments in older patients during hospital stay as well as upon discharge. Several indicators are being used to evaluate clinical pharmacy activities. Their application is not to time-consuming and has proved to be highly valuable to (1) quantify activities, acceptance and satisfaction, (2) to identify ways for improving efficiency.