Drugs prescribed for elderly oncologic patients hospitalized in the geriatric oncology unit of Institut Jules Bordet: polypharmacy and impact of clinical pharmacist

C. Deliens[1], MC. Vanderbeeken[2], A. Georgala[3], O. Filleul[2], B. Papadopoulou[2], G. Deliens[4], A. De Beer[1], D. de Valeriola[2], M. Piccart[2], A. Awada[2], Y. Lalami[2], JP Praet[5], L. Dal Lago[2].*

[1] Division of Pharmacy, Institut Jules Bordet, Université Libre de Bruxelles, Brussels, Belgium, [2] Department of Medicine, Institut Jules Bordet, Université Libre de Bruxelles, Brussels, Belgium, [3] Department of Infectious Diseases, Institut Jules Bordet, Université Libre de Bruxelles, Brussels, Belgium, [4] UR2NF, Neuropsychology and Functional Neuroimaging Research Unit, Université Libre de Bruxelles, Brussels, Belgium, [5] Department of Geriatric Medicine, C.H.U. St.-Pierre, Brussels, Belgium.

Introduction

STOPP and START lists are used to disclaim potential inappropriate medications (PIMs) prescribed at home in older persons. The main objective of this study was to measure the impact of clinical pharmacist on the number of PIMs in a Geriatric Oncology Unit.

Method

Prospective study in consecutive elderly (≥ 70 yrs) patients admitted to a geriatric oncology unit in a cancer center from July 2011 to April 2012. PIMs were identified by clinical pharmacist using the STOPP and START lists. The number of PIMs was compared from the admission to the discharge of the patient, after clinical pharmacist interventions. Polymedication was defined as the use of ≥ 5 drugs.

Results

Ninety one elderly oncologic patients were included in the study. The mean age was 78.10 ± 9.92 years (60.4 % female). Screening geriatric profile was: ISAR score at 3.4 ± 1.6 /6, G8 score at 11.3 ± 2.9 /17, Charlson index at 1.7 ± 2.13 /37. Polymedication was found in 72.5 %.

START identified 44 PIM's at the admission affecting 33 persons (36.3 %) compared to 9 PIM's at the hospitalization discharge affecting 7 persons (8 %). STOPP identified 52 PIM's at the admission affecting 31 persons (34 %) compared to 17 PIM's at the hospitalization discharge affecting 14 persons (16.3 %).

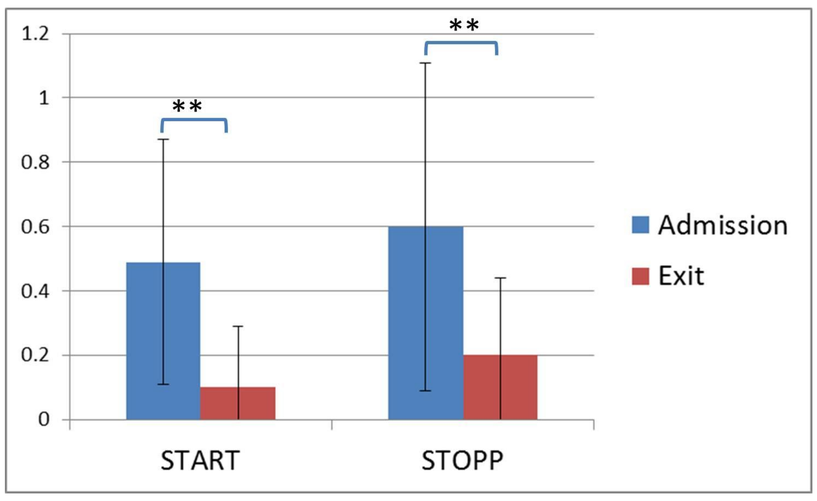
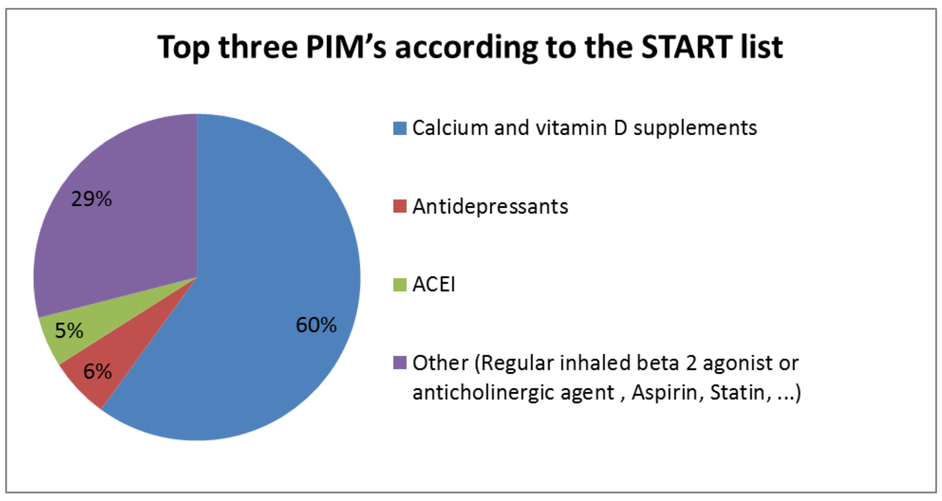
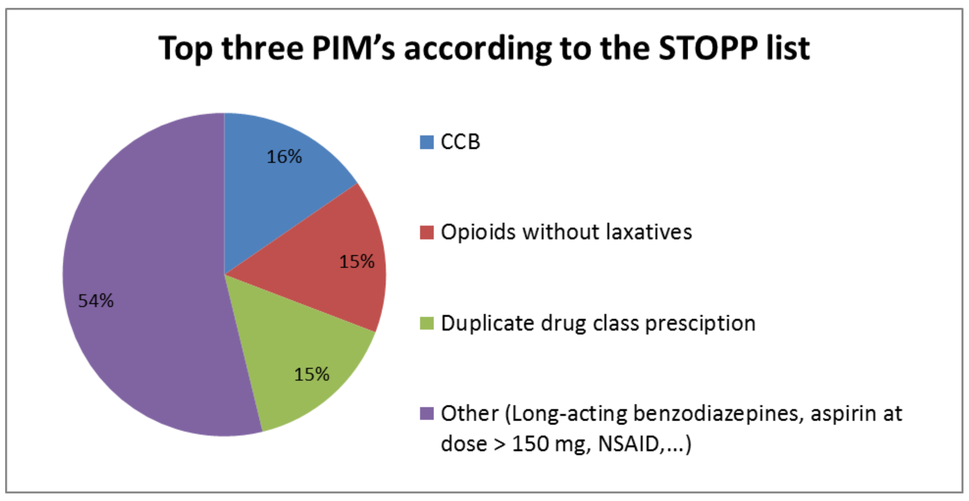


Fig.1 Admission versus exit START and STOPP scores. Errors bars are +/- ½ standard deviation. ** p<.001

Dependent Student's T-test for paired samples reveals significant lower score for discharge START (mean= 0.10) compared to admission START (mean= 0.49; p < 0.001). There was also a significant lower score for exit STOPP (mean= 0.20) compared to admission STOPP (mean= 0.6; p< 0.001, see Fig.1).

The top three PIM's according to the START list were: calcium and vitamin D supplements (60%), antidepressants in the presence of moderate-severe depressive symptoms (6%) and angiotensin converting enzyme inhibitors (ACEI) with chronic heart failure (5%). The top three according to the STOPP list were: calcium channel blockers (CCB) with chronic constipation (15.4%), regular opioids in patients with chronic constipation without concurrent use of laxatives (15.4%) and the presence of duplicate drug class prescription (15.4%).





Conclusion

Polymedication was common in hospitalized elderly cancer patients. Most of them had an abnormal geriatric profile. The screening tools START and STOPP with multidisciplinary assessment by the oncogeriatric team, including a clinical pharmacist allowed identifying PIMs and changing prescriptions for elderly oncologic patients.

References

Gallagher P, Ryan C, Byrne S, Kennedy J and O'Mahony D. STOPP (Screening Tool of Older Person's Prescriptions) and START (Screening Tool to Alert doctors to Right Treatment): consensus validation. International Journal of Clinical Pharmacology and Therapeutics; 2008; 46: 72-83.

Contact

coralie.deliens@bordet.be