

INAPPROPRIATE PRESCRIBING IN OLDER PATIENTS: ASSESSMENT OF A SCREENING TOOL BASED ON THE STOPP AND START CRITERIA

CP-136

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Background

Inappropriate prescribing is a problem of major concern in older patients, given the increased risk of adverse drug events and mortality. In this context, a screening tool based on the Screening Tool for Older Person's Prescriptions (STOPP) and Screening Tool to Alert doctors to Right Treatment (START) criteria¹ was developed and applied in the geriatric unit at CHU Dinant Godinne.

The aim of this study was to assess if the implementation of this screening tool leads to a reduction of potentially inappropriate medications (PIM) and potential prescribing omission (PPO) during the hospitalization.

Figure 1: Screening tool based on the STOPP and START criteria

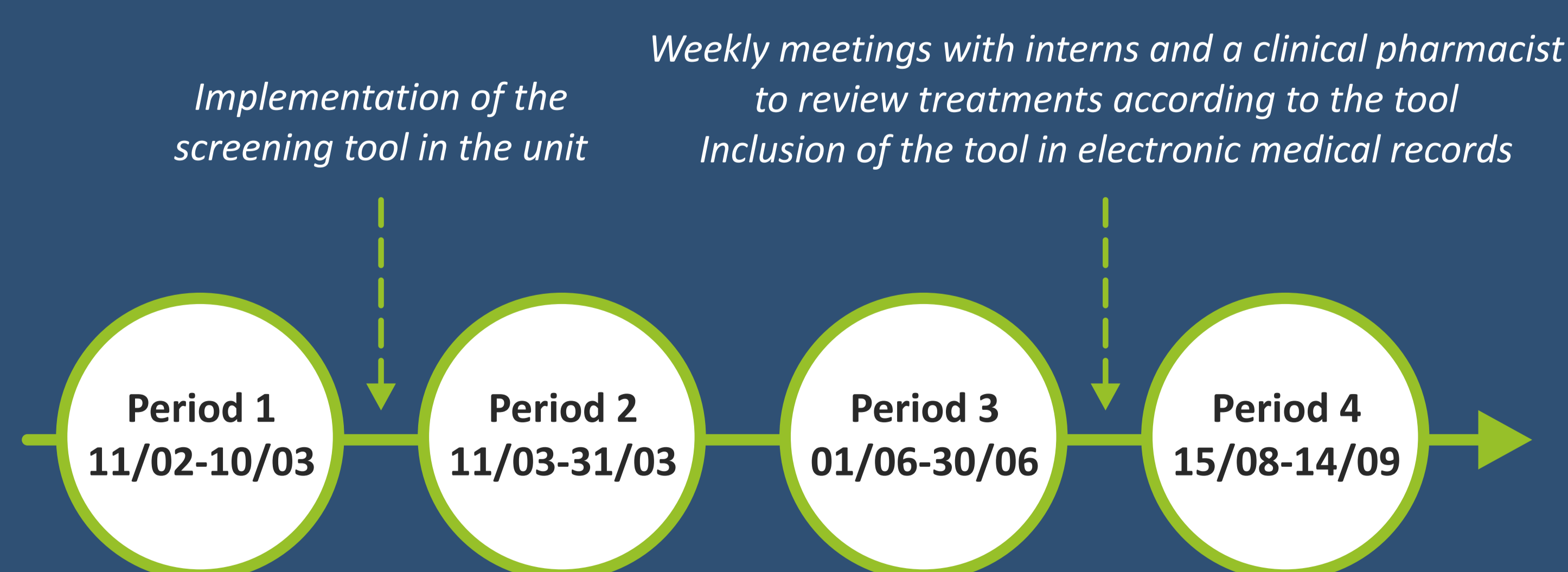
START & STOPP		Etiquette/Badge du patient		
Pour la bonne prise en charge des patients gériatriques à Mont-Godinne. Sélection des médicaments les plus souvent inappropriés.				
Si...	START !	Si...	Et si...	
FA et PAS de CI aux AVK (épisode hémorragique, thrombopénie, cirrhose, non-compliance. Les chutes ne sont pas une CI majeure)	AVK Oui Non	Benzodiazépines	À longue durée d'action utilisée > 1 mois (longue durée ou métabolites actifs longue durée: Flusium, clobazam, Rivofl, clonazepam, Transver, clonazepam, Valium, diazepam, Relypud, flunitrazepam, Soporidorm, flunitrazepam, Vicar, flunitrazepam, Maggador, nitrazepam, Calmiday, nortriazepam, Lyssavia, graziopam et Myolastan-tétrazepam)	Oui Non (progressivement)
FA et CI aux AVK	Aspirine Oui Non	Aspirine	Dose > 150mg (Diminuer la dose. Pas de bénéfices supplémentaires vs EII)	Oui Non
Diabète et ≥ 1 facteur de risque CV (HTA, cholestérol, tabac)	Aspirine Oui Non Statine Oui Non	Bêta-bloquant	Prévention primaire (sans diabète) (pas d'ATCD coronarien, pas d'AVC, pas de maladie vasculaire périphérique, pas d'occlusion, pas de revascularisation) Maladie hémorragique	Oui Non (progressivement)
Athéro-sclérose (coronnaire, cérébrale ou périphérique) (selon le schéma visuel)	Aspirine Oui Non Statine Oui Non	Opioloïde	En combinaison au Verapamil (Risque de BAV) Non cardio-sélectif et BPCO (Non cardio-sélectif: B1, Visker, zolindolol, Inderal, propranolol, Sotolerosol, Kresin, Carvedilol)	Oui Non (progressivement)
Athéro-sclérose coronnaire, cérébrale ou périphérique chez un patient avec indépendance fonctionnelle et une espérance de vie > 5 ans	Statine Oui Non	AINS ou Aspirine	Puisant en première ligne au long cours (Analgésiques puissants: fentanyl, hydromorphone, morphine, méthadone, oxycodone, piritramide) Au long cours et ATCD de chute ces 3 derniers mois > 2 semaines et constipation chronique importante	Oui Non (progressivement)
Ostéoporose connue	Calcium et vitamine D Oui Non	AINS	Au long cours chez patient dément (si soins palliatifs/douleur chronique)	Oui Non
Post-IM ou Insuffisance cardiaque	IECA Oui Non	AINS	ATCD d'ulcère gastrique et utilisé sans protection gastrique (IPP ou autre)	Oui Non
		AINS	Combinaison aux AVK sans protection gastrique (IPP ou autre)	Oui Non
		AINS	HTA > 160/100 non contrôlée par la médication.	Oui Non
		IPP	Insuffisance cardiaque ou Insuffisance rénale	Oui Non
		IPP	Traitement à dose maximale depuis > 8 semaines en traitement d'une pathologie ulcéreuse. (suggéré de réduire la dose progressivement pour éviter la récurrence des symptômes.) (Pantoprodil-Pantoprazole 40mg, Nexium-esomeprazole 40mg)	Oui Non

The tool was a short version of the STOPP and START criteria drawn from Belgian data on prevalence and clinical relevance.

Methods

We conducted a retrospective interrupted time series analysis. Four periods were selected between February and September 2013.

Figure 2: design of the study



Baseline evaluation

Demographic, clinical and pharmaceutical data were collected according to the discharge letter. The screening tool was applied to each treatment, on admission and at discharge. The primary outcome was the rate of PIMs discontinued and PPOs corrected during hospitalization.

Results

120 patients (median age 85 years) were included in the study. The prevalence of PIMs and PPOs on admission was 56% (67/120) and 51% (61/120) respectively. At baseline (period 1), 20% of PIMs were discontinued during hospitalization while 22% of PPOs were corrected. The reduction in PIMs and PPOs improved when the screening tool was implemented in the unit (period 2; 26% and 38% respectively), but three months later this effect had disappeared (period 3; 15% and 19% respectively). We observed the greatest reduction in PIMs and PPOs for the last study period (period 4; 58% and 43% respectively).

Figure 3: Potentially inappropriate medications (PIMs) on admission and at discharge – mean number per patient

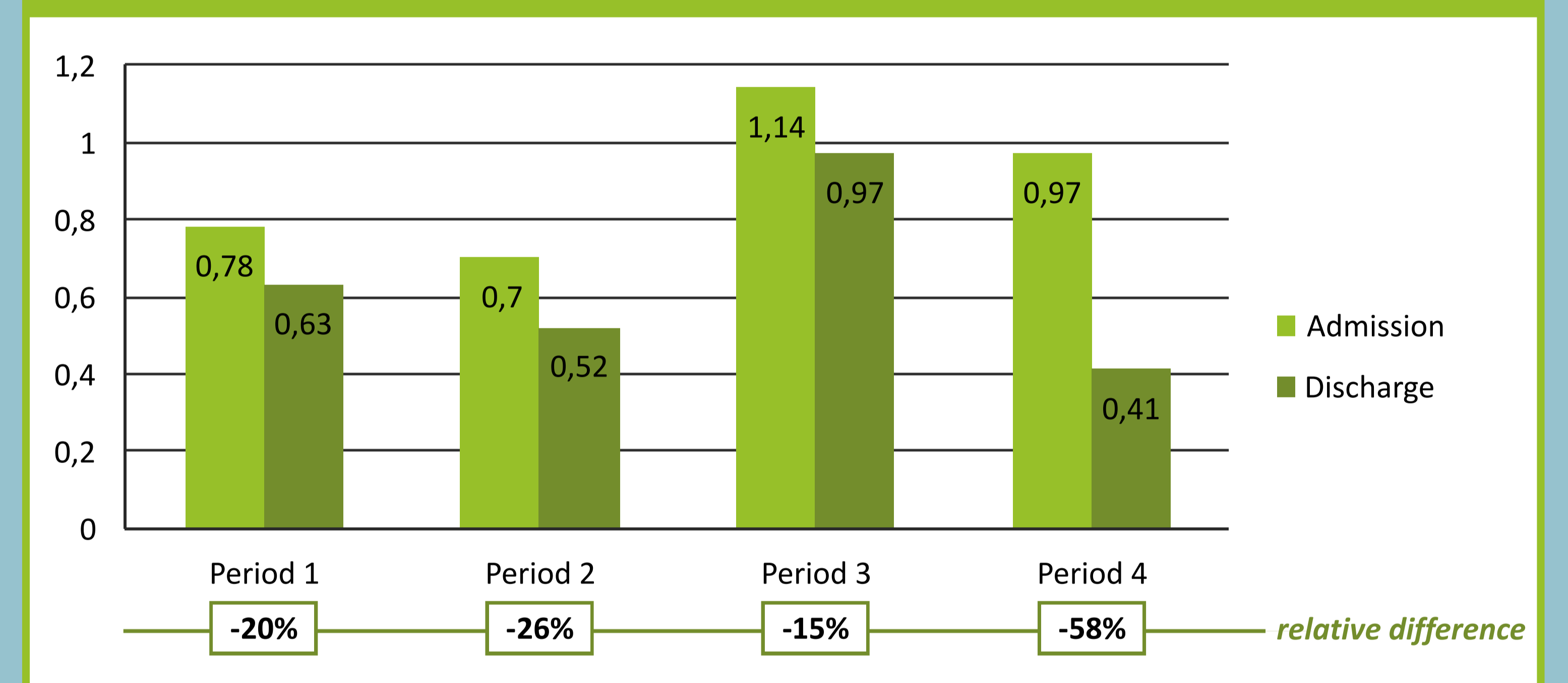
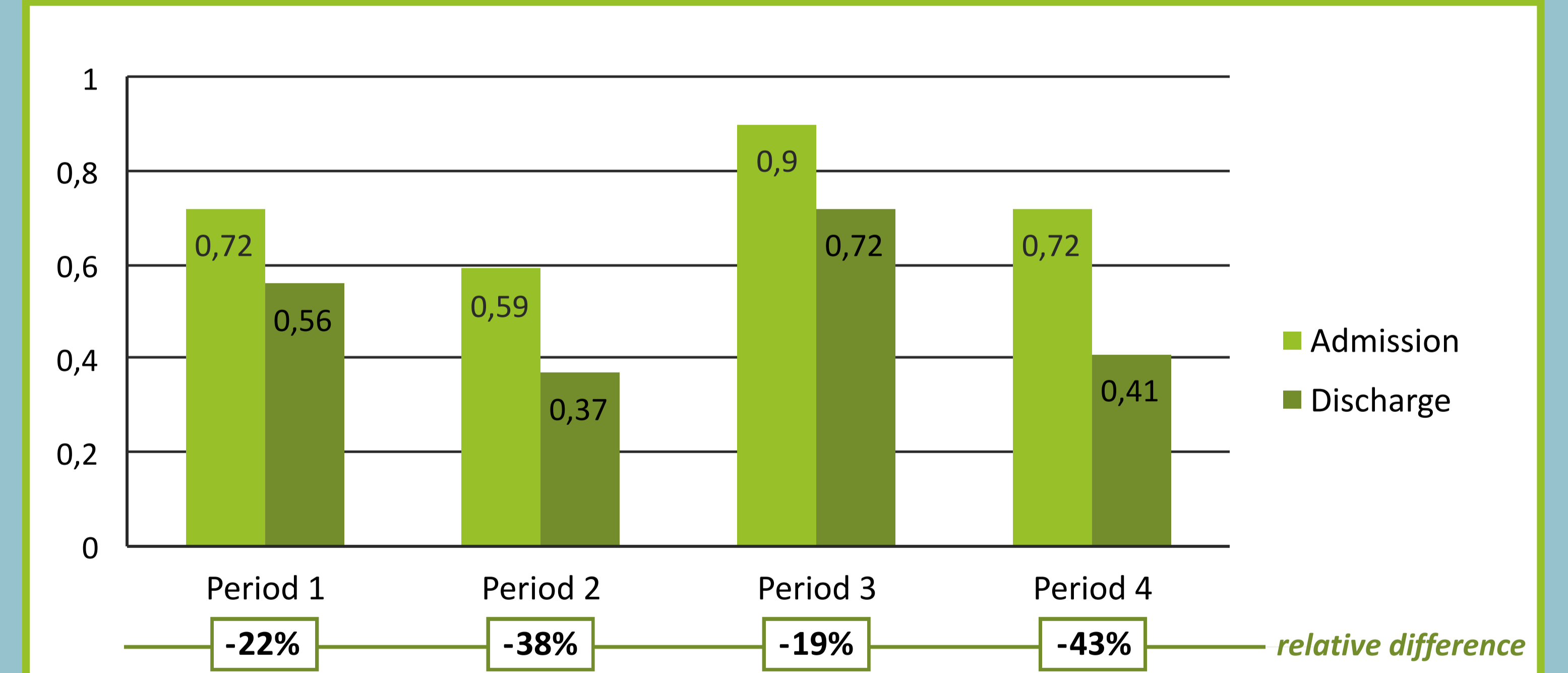


Figure 4: Potential prescribing omissions (PPOs) on admission and at discharge – mean number per patient



Conclusion

The implementation of a screening tool contributes to improve the appropriateness of prescribing in older patients. However efforts must be made in order to maintain a long-term effect. A multidisciplinary approach provides the greatest reduction in PIMs and PPOs.

Reference :

¹ Gallagher et al. Int J Clin Pharmacol Ther 2008 ;46 :72-83

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