

INNAPPROPRIATE PRESCRIBING IN ELDERLY PATIENTS ATTENDING THE EMERGENCY ROOM

CP-127

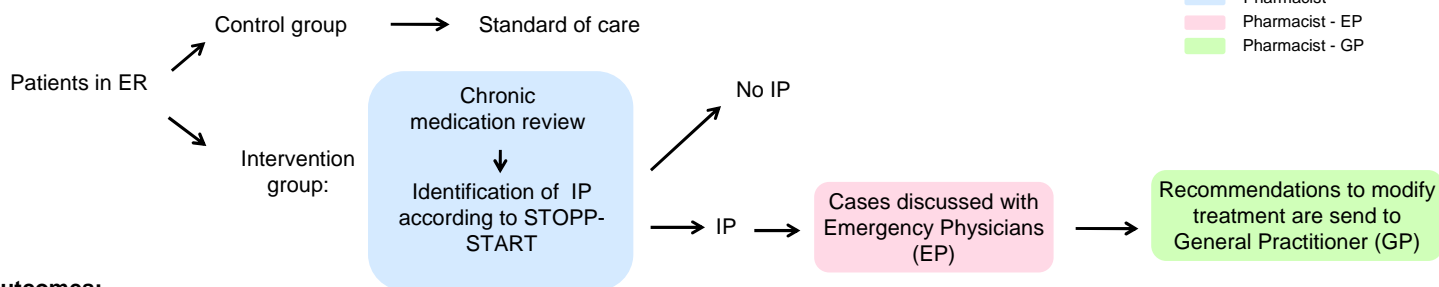
Ana Ginés, Isabel Sánchez Navarro, Rosario Santolaya, Nuria Galán, M^a Teresa Moreno Carvajal, Jesús Sierra, Juan Manuel Rodríguez, Albert Armengol, Silvia García Ramos, Beatriz Calderon. H. Príncipe de Asturias, H. Manacor, H. de Jerez, H. San Llatzer

Objectives

- 1.- To measure the prevalence of inappropriate drug prescriptions (IP) in elderly patients who attend the emergency room (ER).
- 2.- To assess the influence on emergency visits and hospitalizations of a multidisciplinary health care team project designed to identify and resolve them.

Study design

Multicentric randomized controlled trial.



Outcomes:

- Prevalence of IP in elderly patients (final results reported).
- Differences in the rate of hospitalization and emergency visits after one year of follow up (on going).

Results

Patients included: 665

CHARACTERISTICS	CONTROL GROUP(n=342)	INTERVENTION GROUP(n=305)	P
Gender:			0,614
Woman	183 (53,5%)	166 (51,6%)	
Man	159 (46,5%)	156 (48,4%)	
Mean age (SD)	78,2 (7,82)	78,99 (7,59)	0,129
Origin:			0,445
Home	327 (95,6%)	313 (97,5%)	
Social health center	13 (3,8%)	7 (2,2%)	
Charlson adjusted to the mean age (SD)	2,85 (2,3)	3,05 (2,15)	0,077
Number of drugs: median (ICR)	8 (5)	9 (6)	0,008

Prevalence:

262/323 patients with IP in the intervention group (81,1%; IC 95%: 76.8 – 85.4).

3243 medication reviewed:

- 303 (9.3%; IC 95%: 8.3 – 10.4) according to STOPP criteria.
- 278 (8.6%; IC 95%: 76.8 – 85.4) according to START criteria.

STOPP CRITERIA	Nº IP	%
Benzodiazepines for ≥ 4 weeks.	111	36,63
Any duplicate drug class prescription.	25	8,25
Long-term aspirin at doses greater than 160 mg per day.	24	7,92
ACE inhibitors or Angiotensin Receptor Blockers in patients with hyperkalaemia.	15	4,95
Any drug prescribed without an evidence-based clinical indication.	10	3,30
Use of regular opioids without concomitant laxative.	9	2,97
Thiazide diuretic with current significant hypokalaemia, hyponatraemia, hypercalcaemia or with a history of gout.	6	1,98
Sulphonylureas with a long duration of action with type 2 diabetes mellitus.	6	1,98
Loop diuretic for treatment of hypertension with concurrent urinary incontinence.	5	1,65
NSAID and vitamin K antagonist, direct thrombin inhibitor or factor Xa inhibitors in combination.	5	1,65
Digoxin at a long-term dose greater than 125 mcg/day if eGFR < 30 ml/min/1.73m ² .	5	1,65
NSAID if eGFR < 50 ml/min/1.73m ² .	5	1,65
Long-term NSAID or colchicine (> 3 months) for prevention of relapses of gout.	5	1,65
Hypnotic Z-drugs increase the risk of falls in older people.	5	1,65

START CRITERIA	Nº IP	%
Pneumococcal vaccine according to national guidelines.	134	48,20
Statin therapy with a documented history of coronary, cerebral or peripheral vascular disease.	26	9,35
Seasonal trivalent influenza vaccine annually.	24	8,63
ACE inhibitor with systolic heart failure and/or ischaemic heart disease.	16	5,76
Laxatives in patients receiving opioids regularly.	14	5,04
Calcium and vitamin D supplement in patients with known osteoporosis and previous fragility fracture(s) and/or Bone Mineral Density T-scores more than multiple sites.	9	3,24
Vitamin D supplement in older people who are housebound or experiencing falls or with osteopenia.	9	3,24
Antiplatelet therapy with a documented history of coronary, cerebral or peripheral vascular disease.	7	2,52
ACE inhibitor with congestive heart failure or documented coronary artery disease.	7	2,52
Beta-blocker with ischaemic heart disease.	5	1,80
Regular inhaled beta 2 agonist or antimuscarinic bronchodilator for mild to moderate asthma or COPD.	5	1,80

Discussion and conclusions

High number of patients in the ER had IP (prevalence= 81.1%). These data are higher than the data found in other studies (35.9% - 61.3%). In our study a high number of recommendations to modify drug treatment in older people have been done. The final results of the study will clarify if these interventions improve clinical outcomes.

This study is promoted and financed by the REDFASTER group of the Spanish Society of Hospital Pharmacy.

References:

- 1.- O'Mahony et al. STOPP/START criteria for potentially inappropriate prescribing in older people: version 2Age and Ageing 2014;0:1-6.
- 2.- Hudhra K et al. Frequency of potentially inappropriate prescriptions in older people at discharge according to Beers and STOPP criteria. Int J Clin Pharm. 2014;36(3):596-603.
- 3.- San-José A et al. Inappropriate prescribing to older patients admitted to hospital: a comparison of different tools of misprescribing and underprescribing. Eur J Intern Med. 2014;25(8):710-6.
- 4.- Yeste-Gómez I et al. Potentially inappropriate prescriptions in the ambulatory treatment of elderly patients. Rev Calid Asist 2014;29(1):22-8