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Background

Portuguese population is double-aging, with a current aging index of 129.4%, the 5th highest in Europe¹. Old age is often associated with a high comorbidity index, polymedication and various DRPs, including adherence problems and potentially inappropriate medications (PIMs). Pharmacists have a role in medicines review of these patients and several tools have been developed to assist them in such task^{2,4}.

Aims

- To develop a university-based programme where students actively engage in managing the medication of elderly patients.
- To test the feasibility of such approach.
- To evaluate the impact of medication review on patient outcomes (clinical and humanistic).

Methods

Multicentred trial

Residential facilities

Day Care Centres

Community Pharmacies

Patients' inclusion criteria

Age ≥ 65 y.o.
Taking ≥ 5 meds

Age ≥ 65 y.o.
Taking ≥ 5 medicines
Living alone or with spouse
Conscientiously agreeing to participate

Study design

RCT

Quasi-experimental

Interventions

1) Identification of DRPs²

1, 2 and 3) multicompartimental adherence aids (DAA system) to be delivered weekly



Legend			
Medicine for heart or blood (1)	Medicine for bones (2)	Medicine for digestive system (3)	Medicine for urinary system (6)
Medicine for eyes (4)	Medicine for pain (7)	Medicine for respiratory system (8)	Medicine for Diabetes (9)
The following medicines are placed outside the blister pack and have been delivered to you by the pharmacist SOS emergency situations (10)			
Breakfast Lunch Dinner Night time			
(a) Medicine's Name			
(b) Dose			
(c) Amount			
(d) Number of legend			

Patient follow-up=3 months

Outcome measures: adherence (pill-count and MMAS-4); PIMs detected and removed; POMs detected and added; proxy measures when appropriate (e.g. Glycemia, B.P.)

Results

Changes have been made according to difficulties encountered so far., e.g. Recruitment sites and patients age.



Table 1: Baseline characteristics of residential patients (3 facilities)

	Intervention	Control	p
	n (%)	n (%)	
Gender (female)	31 (48.4%)	33 (51.6%)	0.547
	M (SD)	M (SD)	
Age	84.91 (6.738)	83.72 (6.825)	0.413
Comorbidities	4.09 (1.998)	4.45 (2.050)	0.409
Number of medicines	9.89 (4.877)	9.67 (3.797)	0.816
Daily dosages	11.39 (7.268)	11.70 (4.998)	0.819

Discussion

While the interventions designed were planned to be theoretically more useful for patients living alone, the difficulty found in recruitment sites is shifting the focus from home medicines review to residential medicines review. Students are motivated with this project and have offered to become active parts in site recruitment.

References

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