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## Background

Portuguese population is double-aging, with a current aging index of 129.4%, the 5<sup>th</sup> highest in Europe<sup>1</sup>. 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<sup>2,4</sup>.

## 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 DRPs<sup>2</sup>

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



Name: XXXX XXXXXXXXXX Expiry date of blister: YY/MM/DD			
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 Cerebro (5)	Medicine for respiratory system (8)	Medicine for Diabetes (9)
Medicine for pain (7)	Medicine for respiratory system (8)	Medicine for Diabetes (9)	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)			
Name: XXXX XXXXXXXXXX			
Expiry date of blister: YY/MM/DD			
Medicine Name			
Dose			
Amount			
Number of legend			
Breakfast		Lunch	
Dinner		Night time	

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.

### Invited to participate

4 Residential facilities

3 Day Care Centres

28 Community Pharmacies

### Accepted to participate

4 Residential facilities

0 Day Care Centres

12 Community Pharmacies

Total # patients = 226

Services offered are provided by sociologists (n=2)  
Too many research projects (n=1)

Short of staff (n=3)

# patients meeting inclusion criteria=163

Waiting for decision (n=13)

Control (n=5)

Intervention (n=7)

Control (n=81)

Intervention (n=82)

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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