

# Health outcomes of patient-centered medication review interventions. (Preliminary results)

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# OBJECTIVES

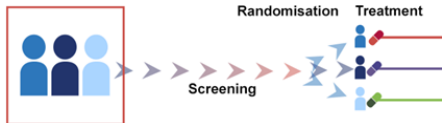


## 2019: NEW MODEL OF ORGANIZATION OF PHARMACIST AT PRIMARY CARE



- ✓ **Evaluate the efficacy** of the intervention in improving therapeutic adequacy in geriatric patients with polypharmacy applying the person-centered care model.
- ✓ **Evaluate the safety** of the intervention and **to analyse the changes** produced in the therapeutic plan at 12 months.

# METHODS



Multicentre, open-label, parallel group, randomised controlled trial

Primary Care, 12 BHA in the Central Catalonia Health Region of Catalan Institute of Health

Geriatric subjects with polypharmacy ( $\geq 8$  drugs) which meet the selection criteria. Sample size: 103 subjects/each group

Basic Health Areas (BHA)

July 2020 – January 2023; 12 months follow-up



**Study group:** Apply the patient centered-care by a multidisciplinary team and scheduled visits at 6 and 12 months.



**Control group:** The standard clinical practice by nurses and/or the family doctor

# RESULTS:

## MAIN OUTCOMES

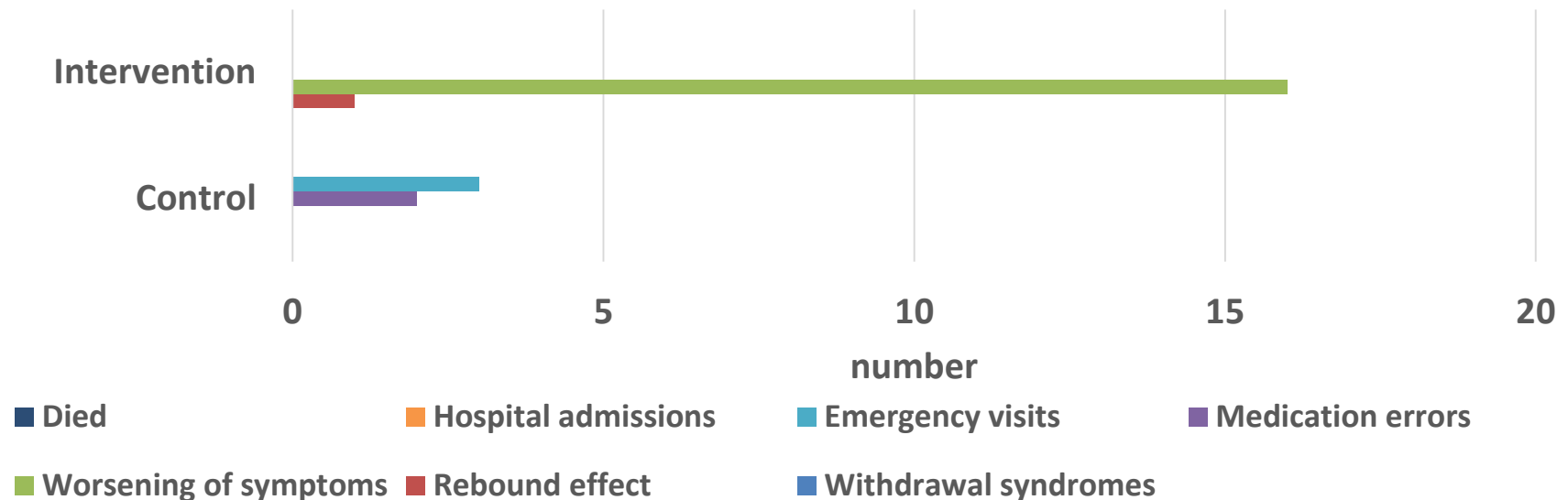
**Preliminary results** based on subjects with finished follow-up on Nov 22.  
**No differences** in baseline characteristics between the two study groups:  
 Mean age  $\pm$  SD: **83.3 years  $\pm$  5.7; 64.8% woman; 54.7% conditions of chronicity and complexity**

Result variables		Control (40 subjects)	Intervention (31 subjects)	p-value
Potentially inappropriate prescriptions	0 months	4.97 (1.99)	5.77 (2.63)	0.166
	12 months	5.00 (1.90)	1.14 (1.33)	<0.001
	Variation	0.11 (1.45)	-4.57 (2.25)	<0.001
Prescribed medications	0 months	11.3 (2.49)	10.6 (1.76)	0.179
	12 months	11.4 (2.54)	7.61 (2.44)	<0.001
	Variation	0.32 (1.68)	-2.79 (2.15)	<0.001
Changes made to the therapeutic plan	0	13 (33.33%)	1 (3.23%)	0.006
	$\geq 1$	26 (66.67%)	30 (96.8%)	
	Mean (SD)	2.87 (3.51)	5.32 (2.44)	0.001
Hospital admissions	0	31 (79.49%)	26 (83.87%)	0.485
	$\geq 1$	8 (20.51%)	5 (16.13%)	
	Mean (SD)	0.51 (1.19)	0.32 (0.82)	0.438

# RESULTS: SECONDARY OUTCOMES

Result variables		Control	Intervention	p-value
Changes in the treatment plan/year	Median (SD)	2.77 (3.36)	4.36 (2.11)	<b>0.021</b>
Medication Adverse Events	0	34 (87.18%)	18 (58.06%)	<b>0.006</b>
	≥ 1	5 (12.82%)	13 (41.94%)	
	Median (SD)	0.15 (0.54)	0.55 (0.77)	<b>0.019</b>

## Medication Adverse Events



# DISCUSSION AND CONCLUSIONS

The preliminary results of the clinical study, seems to be **efficacious** to **optimize the therapeutic plan** of complex patients with **multimorbidity, frailty and polypharmacy**, although no differences were observed in the number of hospital admissions.

These results are in agreement to other similar published studies.

The changes observed **persisted beyond the year** in the two groups.

It must be pointed out that the results were so different between groups, because in the **control group**, at the end of the study there was an increased of both the number of the potentially inappropriate prescriptions, and the number of prescribed medication. On the other hand, in the **intervention group** the most frequent change was withdrawing drugs and therefore there was a decrease of prescribed medication.

In relation to the **safety**, the intervention produced more adverse events, but none of them caused serious harm, while in the control group 3 adverse events required emergent attention.

**Finally, these preliminary results are based on a small sample, we hope to achieve more ambitious results at the end of the study.**