

Clinical results of an inter-professional student-led medication review program

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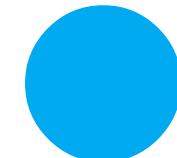
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Inter-professional

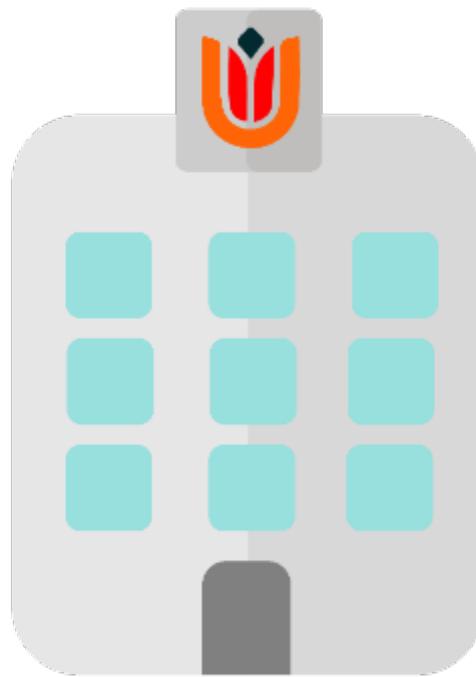
Student-led

Medication review program





Inter-professional

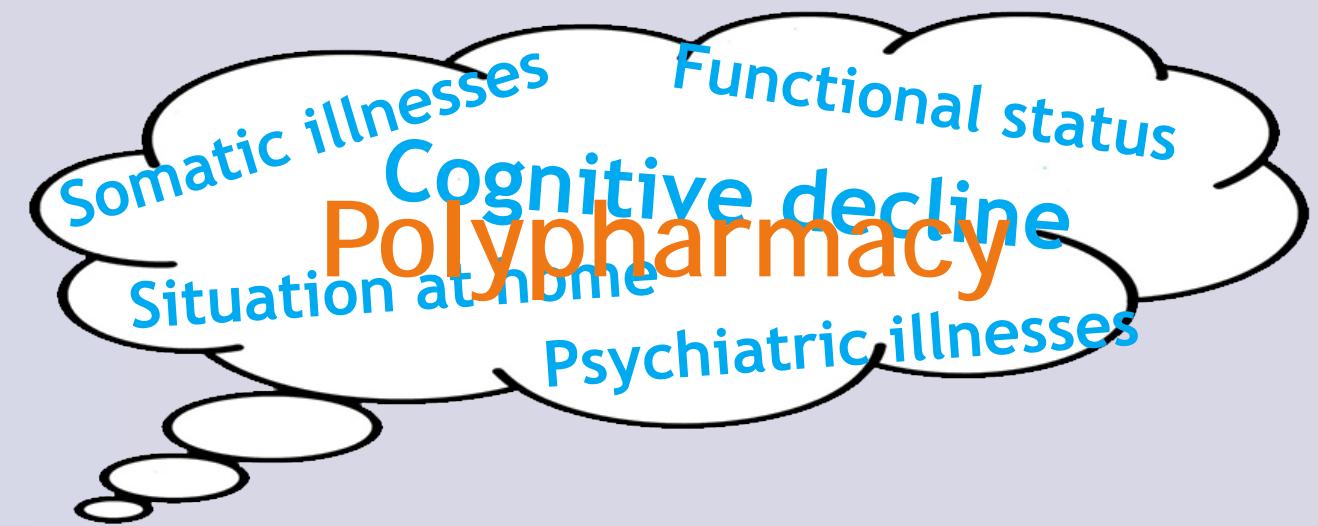




Student-led

- Authenticity
- Collaboration





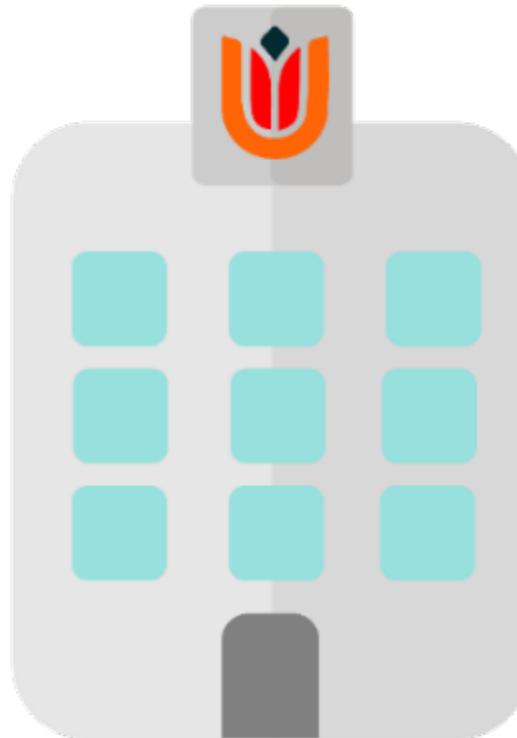
Medication review program





Geriatric medicine department Amsterdam UMC

Memory clinic



- Assessment of cognitive status
- 4 patients per week



Geriatric medicine department Amsterdam UMC

Outpatient visit

Physician

Geriatric nurse

Neuropsychologist

Laboratory
testing

MRI / CT brain

Multidisciplinary
meeting

Physician

Geriatric nurse

Neuropsychologist

Return visit

Physician

Geriatric nurse

Correspondence
letter

Physician



Geriatric medicine department Amsterdam UMC

Outpatient visit

Multidisciplinary meeting

Return visit

Correspondence letter

Standard care

Standard care

Standard care

Standard care



ISP students



Physician Assistant &
Advanced nursing practice

Medicine
Bachelor & Master



Pharmacy
Master



Study aim



Is the addition of ISP to usual care associated with an optimization of medication?

A circular icon containing four stylized human figures in a dynamic, overlapping arrangement. Two figures are green and two are blue, representing the interdisciplinary nature of the study.



Patients



Nov 2018 - Okt 2019



Weekly: 2 patients usual care
2 patients usual care + ISP intervention



N = 200



Patient allocation by medical secretary



Informed consent



Medication assessment



- Independent review panel analyzing medication list in medical file
- 2 clinical pharmacologists, blinded assessment
- According to 2nd version of START/STOPP criteria ¹
- Number of START/STOPP criteria

¹ Translated and adapted to the situation in the Netherlands, W. Knol, Ned Tijdschr Geneesk, 2015; 159; A8904



START/STOPP criteria

START

Bisphosphonates, calcium and vitamin D in patients with diagnosed osteoporosis.

STOPP

Drugs with anticholinergic side effects in patients with delirium or dementia (eg.Oxybutynine & amitriptyline).



Outcomes

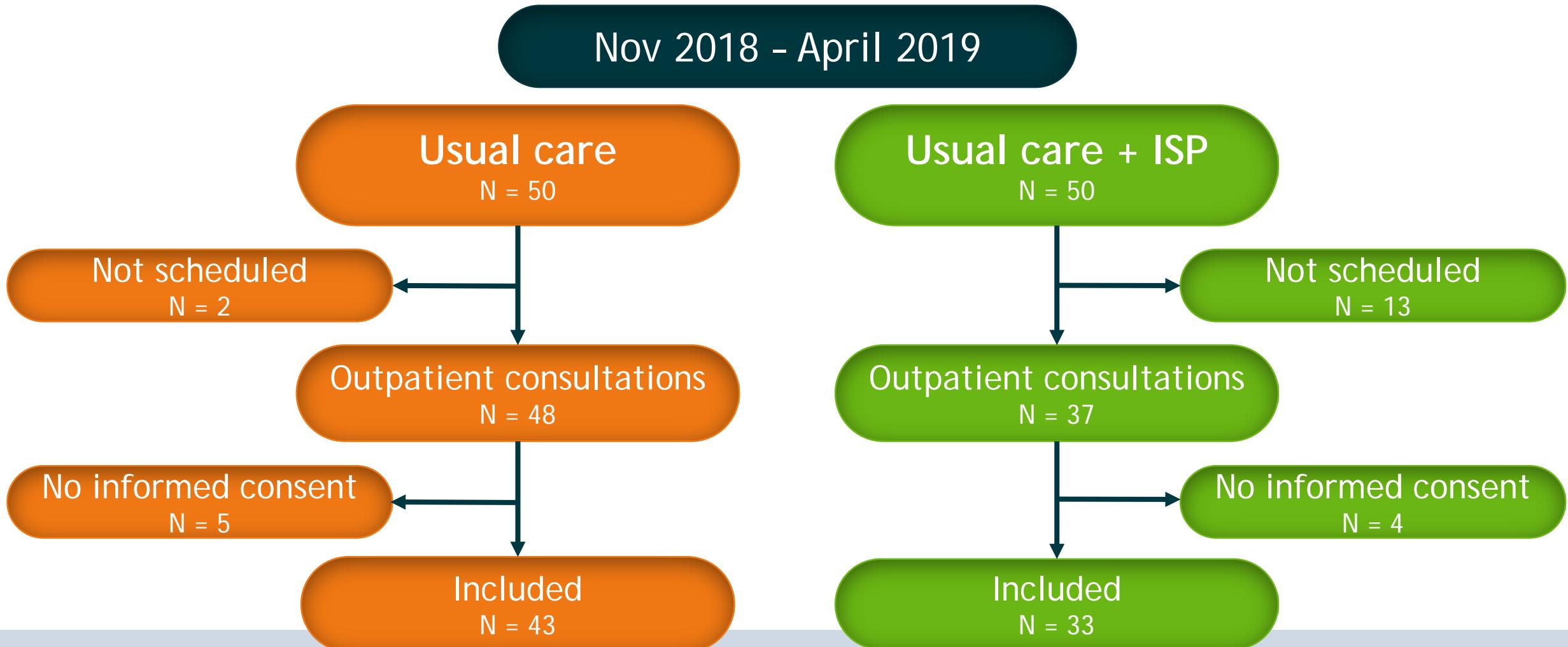


Number of identified START - STOPP items in correspondence letter



Number of changes in medication overview of local pharmacist
1 month after correspondence letter

Inclusion



ISP = Inter-professional student-led medication review program



Patient characteristics

	Usual care (n = 43)	Usual care + ISP (n = 33)	p value
Age (yrs), median (IQR)	81 (76 - 84)	79 (74 - 82)	0.17
Sex, male	52%	50%	0.84
Number of prescription drugs, median (IQR)	4 (3 - 7)	4 (4 - 7)	0.65
Number of total drugs, median (IQR)	5 (4 - 7)	5 (4 - 8)	0.73
Diagnosis	No cognitive disorder	21%	1.00
	Mild cognitive impairment	23%	
	Dementia	57%	

ISP = Inter-professional student-led medication review program



START / STOPP items

Review panel

Usual care (n = 43)		Usual care + ISP (n = 33)	
Total items	%	Total items	%
103		66	





START / STOPP items in correspondence letter

Usual care

(n = 43)



28 / 103

>200%

Usual care + ISP

(n = 33)



39 / 66



START / STOPP items

Correspondence letter to GP

Usual care (n = 43)		Usual care + ISP (n = 33)	
Total items	%	Total items	%
28		39	



START / STOPP items after 1 month

Usual care

(n = 43)



17 / 103

>200%

Usual care + ISP

(n = 33)



+



25 / 66



Conclusion

The addition of ISP to usual care is associated with an optimization of the quality of prescribed medication.



Future analyses

- Effect of contacting GP on follow thought medication changes.
- Reducing adverse drug reactions.
- Effect on quality of Life and patient medication satisfaction.
- Interprofessional (learning) benefits students.



Acknowledgement

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RECIPE (Research & Expertise Center In Pharmacotherapy Education),

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Department of elderly care, department of internal medicine,

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Dr. M. Richir

Prof. Dr. M. van Agtmael

Prof. Dr. M. Muller

A. Burger & G. Asma

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Dhr. H. Springer





Extra results



- Students want more attention for medication reviewing.
- Students felt responsible & found reviewing more educational than constructed paper casuistry.
- Median mark: 8.2 (1-10/min-max)



- Student feel inter-professional care is especially important in elderly care.
- Better understanding of different healthcare professionals.

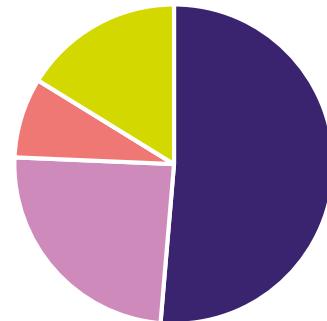


START / STOPP items

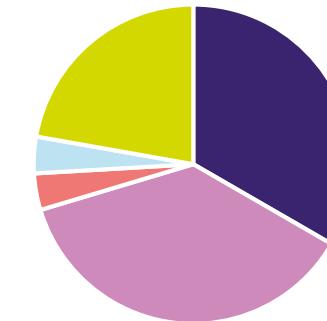
	Usual care				Usual care + ISP			
	Total		START	STOPP	Total		START	STOPP
Review panel	103		37	66	66		27	39
Physician	13	13%	3	10	13	20%	3	10
ISP					56	85%	21	35
Correspondence letter	28	27%	14	14	39	59%	19	20
1 month	17/28	61%	9	8	25/39	64%	12	13

START/STOPP

START

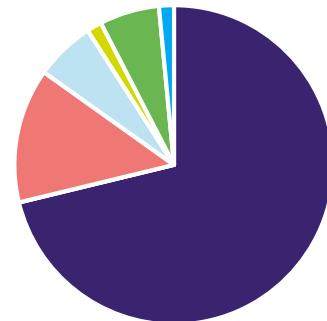
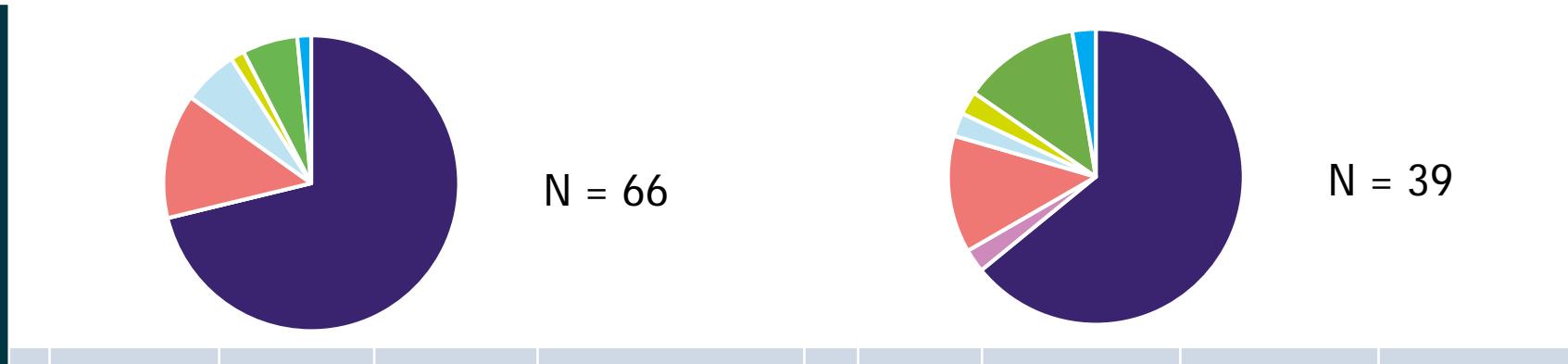


N = 37

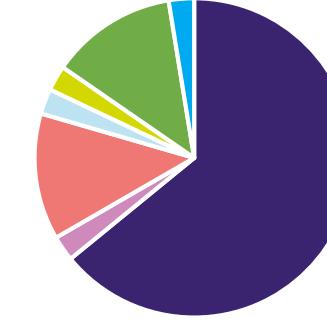


N = 27

STOPP



N = 66



N = 39