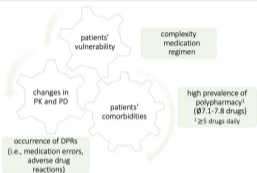


# Prescription trends and deprescribing in outpatient specialized palliative care

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In specialized palliative care, therapeutic goals change drastically with the decision in favor of symptom management and quality of life. Deprescribing is particularly relevant. However, the need for discontinuation of medication can vary greatly over time and needs regular consideration. Guidance on deprescribing in specialized palliative care is limited and urgently needed. In order to better gauge the potential of deprescribing from a clinical perspective, it is important to get an insight in prescription trends and to identify potentially inappropriate medications in this setting.



## Objectives

- I. To identify indicators for potentially inappropriate medications (PIMs) and deprescribing in outpatient specialized palliative care.
- II. To investigate prescription trends with a focus on polypharmacy and deprescribing in outpatient specialized palliative care.

## Methods

- I. Scoping review according to PRISMA-ScR in Pubmed and Embase.
- II. Descriptive longitudinal medication analysis in patients receiving care by a mobile palliative care team (MPCT) with regular and as-needed medication (PRN) assessed retrospectively at three time points (t<sub>0</sub>: first assessment, t<sub>1</sub>: first changes to medication, t<sub>2</sub>: death or transfer to an inpatient setting).

## Results

I. 20 publications were included (n=5/20 guidelines/tools to identify PIMs and n=15/20 medication analysis studies).

II. Inclusion of 75 patients (49/75, 65% male). Changes to medication were observed in 93% patients (70/75), with a total of 3257 prescribed drugs (regular n=1426, PRN n=1831).

Drug regimen	time	Prescribed drugs (n)	Change (%)	Prescribed drugs (n)	SD	range	patients with polypharmacy (n, %)
regular	t <sub>0</sub>	479	n/a	7	5	1-24	46/70 (65.7%)
	t <sub>1</sub>	539	+13%	8	4	1-17	53/70 (75.7%)
	t <sub>2</sub>	408	-24%	6	4	1-16	38/70 (54.3%)
		<b>t<sub>0</sub>-t<sub>2</sub></b>	<b>1426</b>	<b>-25%</b>	-	-	
PRN	t <sub>0</sub>	378	n/a	5	4	-	-
	t <sub>1</sub>	707	+87%	10	4	-	-
	t <sub>2</sub>	766	+6%	11	4	-	-
		<b>t<sub>0</sub>-t<sub>2</sub></b>	<b>1831</b>	<b>+97%</b>	-	-	
both	t <sub>0</sub>	857	n/a	6	5	-	-
	t <sub>1</sub>	1246	+45%	9	5	-	-
	t <sub>2</sub>	1154	-7%	8	5	-	-
		<b>t<sub>0</sub>-t<sub>2</sub></b>	<b>3257</b>	<b>+35%</b>	-	-	

Most frequently prescribed drugs

t<sub>0</sub>-t<sub>2</sub>:

- morphine
- metoclopramide
- lorazepam
- sodium picosulfate
- metamlazole

Drug class	prescriptions (n) <sup>a</sup>		
	t <sub>0</sub>	t <sub>1</sub>	t <sub>2</sub>
<b>regular drug regimen</b>			
Antithrombotic drugs	31	30	18
Blood pressure lowering	39 (24)	32 (23)	23 (17)
Gastroprotective drugs	30	40	37
Lipid lowering drugs	7	6	3
Vitamins and minerals	39 (26)	34 (24)	28 (22)
<b>PRN drug regimen</b>			
Antithrombotic drugs			
Blood pressure lowering drugs	3	2	3
Gastroprotective drugs	1	7	7
Lipid lowering drugs	-	-	-
Vitamins and minerals	2	4 (3)	4 (3)

a: equals number of patients, if not stated otherwise in ( )

Criteria to identify PIMs applied by the studies:

- by Frède et al. (n=2)
- by Holmes et al. (n=4)
- "Beers Criteria" (n=3)
- "On-Pal Deprescribing Guidelines" (n=2)
- "Medication Appropriateness Index" (n=1)
- criteria developed by authors specifically for study/medication analysis (n=4)

Most frequently prescribed medication classes (not applicable for guidelines/tools)	Guidelines/Tools		Medication analysis studies	
	n	(n/N)*100	n	(n/N)*100
Analgetic drugs	8	53%		
Blood pressure lowering drugs	6	40%		
Gastroprotective drugs	7	47%		
Psycholeptic drugs	7	47%		
Vitamins and minerals	1	7%		
<b>Most frequently identified PIMs<sup>1</sup></b>	<b>N=5</b>	<b>100%</b>	<b>n</b>	<b>(n/N)*100</b>
Antithrombotic drugs	5	100%		
Blood pressure lowering drugs	4	80%		
Gastroprotective drugs	4	80%		
Lipid-lowering drugs	5	100%		
Vitamins and minerals	4	80%		

## Conclusion

Linking prescription trends of MPCT patients with indicators for PIMs and deprescribing identified in the literature helped to emphasize the clinical relevance of deprescribing in outpatient specialized palliative care. The findings could help to develop new pharmacy services and to provide guidance towards a safe and effective medication regimen in patients.

## References

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