

Positive impact of a clinical pathway on the treatment of nausea and vomiting in palliative care

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Background

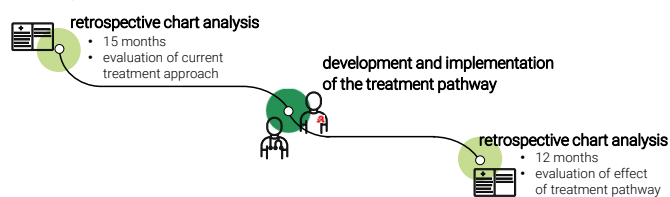
Palliative care patients often experience distressing nausea and vomiting. Treatment is challenging due to diverse needs and limited evidence. Guidelines recommend an etiology-based approach, but supporting evidence is scarce. In the preliminary project, an evidence-based treatment path was developed for the targeted therapy of nausea and vomiting in palliative care.

Aim of the Study

 to evaluate the impact of a structured treatment pathway regarding therapy effectiveness

Methods

Single center before-after-study on a palliative care unit in a tertiary hospital.



inclusion criteria: all adult patients (inpatient stay ≥ 2 days)

variables: demographic and clinical data, symptom burden on IPOS* for nausea/vomiting

endpoints: evaluation of therapy quality with

- quality indicator (QI): proportion of patients with reduction in burden according to IPOS (for nausea/vomiting) on third treatment day
- duration of symptom burden (days)

Results

Comparison of the patient collectives

	Before (Phase 1)	After (Phase 2)	
Number	330	280	
age (median)	71 (19-97)	72 (26-100)	$p = 0.0391$
female gender	168 (50.9%)	140 (50.0%)	$p = 0.8867$
CCI Charlson Comorbidity Index median, range	8 (0-17)	8 (1-16)	$p = 0.9926$
main diagnose			
• oncological	• 221 (67.0%)	• 204 (72.9%)	$p = 0.1368$
• internal	• 47 (14.2%)	• 42 (15.0%)	$p = 0.8815$
• neurological	• 32 (9.7%)	• 22 (7.9%)	$p = 0.5130$
• other	• 30 (9.1%)	• 12 (4.3%)	$p = 0.0296$
with nausea/vomiting	172 (52.1%)	139 (49.6%)	$p = 0.5969$
initial symptom burden (IPOS*)	no significant differences		$p = 0.4538$

→ patients in both phases comparable

*IPOS: Integrated Palliative Care Outcome Scale

Results

A 4-step pathway, focusing on identifying the underlying cause and indicated pharmacotherapy was developed, including seven primary scenarios (i.e., possible etiologies).

Effects of the treatment pathway

The use of the pathway resulted in treatment decisions in 104/139 patients (74.8%).



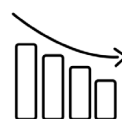
Identification of underlying etiology

	before	after	p value
etiology identified	170/230 (73.9%)	165/178 (92.7%)	$< 0.001^*$



Quality Indicator met

	before	after	p value
QI Nausea	124/178 (69.7%)	129/156 (82.7%)	0.0082^*
QI Vomiting	66/93 (71.0%)	81/95 (85.3%)	0.0281^*



Duration of symptom burden

	before	after	p value
duration (days) median, range	3 (0-25)	2 (0-23)	$< 0.001^*$

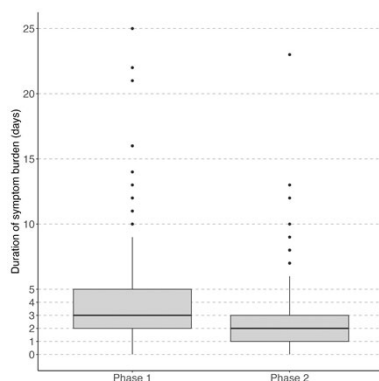


Fig. 1 Comparison duration of symptom burden before (Phase 1) and after (Phase 2).

The duration of symptom burden decreased significantly ($p < 0.001^*$, Fig. 1). Subgroup analysis revealed a significant effect for cancer patients ($p < 0.001^*$), whereas for non-cancer patients only a trend towards faster symptom relief was noted ($p = 0.0582$).

Discussion

Treatment according to the developed pathway led to a significant improvement in the quality of antiemetic therapy, likely due to more accurate identification and targeted management of underlying causes. By guiding clinical decision making through a structured, etiology-based approach, the pathway supported more effective and consistent treatment. Its potential value in other palliative care settings and for non-cancer palliative care patients should be explored in future studies with larger sample size.