

From curative to palliative – a medication-centric view on shifting the care regimes of people approaching death

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Background & objectives

End-of-life or palliative care differs from other forms of healthcare in several ways. For one, palliative care tends to be very complex: in terms of patient morbidity and symptoms, of interventions applied and of the type and number of service providers involved.

Second, and maybe more importantly, palliative care has a different focus than other forms of healthcare: the focus is not on curing patients' conditions but on successfully managing symptoms, usually in the time leading up to a patient's death. According to the guideline regulating the most intensive form of palliative home care in Germany (specialised palliative home care or Spezialisierte Ambulante Palliativversorgung, SAPV), the focus in the last days, weeks or months before death should not be on curative measures but rather on the management of symptoms with the aim of maintaining quality of life [1].

Medication plays a key role in the management of relevant symptoms such as pain, nausea, dyspnea or anxiety. If there was a successful change in care regime after the start of palliative home care services, this change should become visible in the medication prescribed to the patients. Together with other indicators (such as place of death or time spent in hospital), a medication regime change can therefore be seen as a proxy indicator for a good outcome of palliative care.

Methods

Data & study population: Pseudonymised claims data of insureds (18yrs +) of German statutory health insurance AOK Rheinland / Hamburg living in the Northrhine region (southern part of Northrhine Westphalia) and deceased between 2014 and 2016. Dataset comprising insured basic data, data on primary and secondary care, palliative care, medication prescription, therapies, assistive technologies and social care for the years 2013 to 2016.

Analysis: Descriptive analysis of population characteristics, service use and medication prescription in the last year of life. Palliative medication was defined on the basis of [2], [3] and [4] and analysed in contrast to all other prescribed medication. The unit of measurement was medication cost.

Results, discussion & conclusions

Tab 1: Care trajectories in the last year of life

Group	Trajectory includes	n	%	Description
Palliative	Palliative, inpatient only	2.474	2,8	Hospice and/or palliative care in hospital. No pall. homecare, but other care services possible.
	GP pall. care (no other pall. homecare) et al.	8.442	9,4	No AAPV or SAPV, but hospital (palliative), hospice or other care services possible.
	AAPV (not SAPV) et al.	10.737	12,0	No SAPV, but GP pall. care, hospital (pall.), hospice or other care services possible.
	SAPV et al.	5.316	5,9	AAPV, GP pall. care, hospital (pall.), hospice or other care services possible.
	Sum Palliative	26.969	30,1	
Non-palliative	Sum non-palliative	61.212	68,4	No palliative services of any type received
	No care received	1.344	1,5	No services received in the last year of life
Total population		89.525	100,0	

Empirical care trajectories in the last year of life (LYOL)

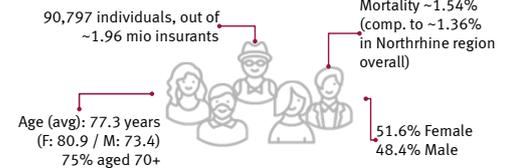
Last-Year-of-Life (LYOL) care trajectories of about 1/3 of the 90,797 deceased show any type of palliative care provided. Palliative inpatient care (hospital, hospice) in isolation is rare, most patients receive more than one type of palliative service. Of the three types of palliative homecare, the most specialised type (SAPV) is also the most rare.

More than 2/3 of the deceased did not receive any type of palliative care in their last year of life.

Insureds in their last year of life

Main study population APVEL claims data analysis

Deceased in 2014 – 2016, age: 18 yrs and older at time of death



Tab 2: Begin of palliative homecare service before death

Type of service	Begin of service (days before death)								
	Avg	SD	Min	5%	25%	Median	75%	95%	Max
GP-provided palliative care	260,4	316,3	0	2	21	95	435	931	1.095
General palliative homecare	21,1	325,0	0	2	19	74	334	1.033	1.096
Specialised palliative homecare	68,1	129,4	0	1	7	22	64	315	1.095

A change in care regime from curative to palliative requires that palliative care services reach the patient, i.e. are being provided. GP-provided palliative services have a median starting time of 95 days prior to death, general palliative homecare (AAPV) of 74 days and specialised palliative homecare (SAPV) of 22 days. In other words, the more complex services tend to start closer to death. There is also considerable variation in the start time relative to the day of death within each type of services. All three services start much closer to death at the 25% quantile and much earlier at the 75% quantile.

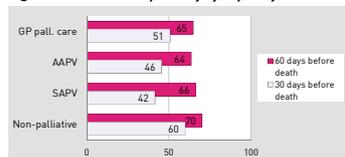
Change in care regime – curative to palliative in LYOL

Table 2 shows the average share of medication cost for palliative medication and all other medication prior to and after the start of specialised palliative home care for all patients that received this level of service (n=5.316). Before the start of palliative care, an average 81.5% of medication cost was spent on non-palliative medication, compared to 15.7% for palliative medication. After receiving palliative services, the average cost share for palliative medication increased more than threefold to 48.6%. Standard deviation for all averages is high, indicating that there is considerable individual variation. Nevertheless, the indicator shows what seems to be a successful regime change at least for a part of the patients concerned.

Tab 2: Share of medication cost (%) by type for patients receiving specialised palliative home care

Time frame	Type of medication	Avg. share of cost	Std. dev.
Before start palliative care	Non-palliative medication	81,5	25,7
	Palliative medication	15,7	21,9
After start palliative care	Non-palliative medication	45,2	32,0
	Palliative medication	48,6	32,3

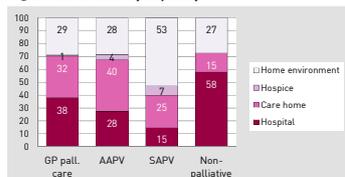
Fig 1: Insureds with hospital stay by trajectory



Two other indicators shed light on the question on how far the onset of palliative care leads to a regime change, while at the same time corresponding to explicit objectives of the specialised palliative homecare federal guideline.

1) Share of patients with hospital stays, as shown in Figure 1. The share of people with at least on hospital stay in the 60 days prior to death does not vary much according to whether the patients received palliative services or not. But in the 30 day period there is decrease in hospital stays with increasing complexity of palliative services received.

Fig 2: Place of death by trajectory



2) Place of death, as shown in Figure 2. The share of people dying in hospital decreased with increasing intensity of palliative services received. Due to a high prevalence of nursing home stays for GP pall. care and AAPV patients, only SAPV patients showed an increased share of people for which death in home environment can be assumed (i.e. were not in hospital, care home or hospice at time of death).

Conclusions

The results in relation to prescribed medication provide an indication that – on average – the start of specialised palliative home care can indeed initiate a shift in care regime from curative care to symptom management, as far as drug therapy is concerned. The results in relation to hospital stays and place of death support these findings.

At the same time, the data raise the question if all people that potentially could benefit from such a regime change would actually be able to do so if they wanted.

Levels of service utilization, a comparatively late start of service before death (median 22 days for SAPV), as well as the considerably variation in basically all indicators seem to indicate that the impact could be considerably higher if services were more widely available and integrated at an earlier stage in the care trajectory.

Literature

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