

Abstract of parallel session: 1

Title: Practice variation of healthcare utilization in the last phase of life of Dutch lung cancer and colorectal cancer patients
A cohort study using nationwide healthcare data

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Abstract

Aims To analyze regional variation healthcare in utilization profiles (HCUP) of lung cancer (LCP) and colorectal cancer patients (CRCP) in order to gain insight into potential under- or overtreatment in the end-of-life (EoL). These analyses are a first step towards the identification of potential targets for improvement or change.

Methods All Dutch insured LCP and CRCP (diagnosis based on ICD-10 codes) deceased in 2013, 2014 or 2015 of whom hospital medical care was registered are included. We used an administrative hospital database containing all in-hospital healthcare activities of the Netherlands for the years 2013-2015 for LCP (N=25,553) and CRCP (N=14,911). After clustering healthcare activities into main clusters of care we calculated the number of patients receiving this care and, if they did, the intensity of care (average number of treatments per patient per month) in the last 6 month(s) before death. We analyzed the age, sex and SES adjusted variation across geographical regions (2 digit postal code), for each cluster of care.

Results As death nears, the number of patients receiving hospital care decreases but the intensity of care increases. During the last month of life, healthcare utilization in terms of CT scans, hospital bed days, ICU and ER contacts was substantial. In contrast, the number of palliative consultations was low (table 1). We found substantial variation in most clusters of care, with a mean 3-year factor score varying from 2.2 to 10.8 in CRCP and 1.6 to 5.7 in LCP.

Conclusions There was a substantial amount of CRC and LC patients with a prolonged treatment in the last phase of life. We also found these care to vary substantially between geographical regions. Whether these treatments are inappropriately numerous or intense requires further research.

Table 1. End-of-life healthcare utilization profiles for colorectal cancer and lung cancer patients, 2015

Months before death	Colorectal cancer (N=4123)				Lung cancer (N=6643)			
	6		1		6		1	
	%	Intensity	%	Intensity	%	Intensity	%	Intensity
CT scan	56.0	0.3	9.5	1.6	61.0	0.3	11.9	1.6
Hospital admission	55.2	1.8	18.9	9.0	57.2	1.7	21.4	8.9
ER visit	43.3	0.2	13.1	1.2	46.9	0.2	16.2	1.2
Chemotherapy	27.3	0.8	3.3	2.8	39.6	0.7	3.9	2.4
Radiotherapy	9.6	1.3	1.2	5.2	21.4	1.5	4.0	5.2
ICU day	6.0	1.0	3.0	5.5	3.8	0.9	1.9	6.2
Palliative consultation	3.1	0.3	1.4	1.6	2.0	0.3	1.0	1.7