

Supplementary file for manuscript: Impact of palliative home care support on the quality and costs of care at the end of life: a nationwide matched cohort study

Supplementary table 1: Sensitivity analyses using different intervention models to construct the propensity score matching (outcomes in percentages)

	Model: Use of any palliative home care support			Model: Use of allowance for palliative home patient			Model: Use of a multidisciplinary palliative home care team			Model: Use of palliative nursing care or physiotherapy for palliative patients at home		
	Yes (n=8837)	No (n=8837)	Risk Ratio (95% CI)	Yes (n=7972)	No (n=7972)	Risk Ratio (95% CI)	Yes (n=4108)	No (n=4108)	Risk Ratio (95% CI)	Yes (n=6171)	No (n=6171)	Risk Ratio (95% CI)
Indicators of appropriate end-of-life care												
<i>Home death</i>	56.2	13.8	4.08 (3.86-4.31)	57.6	14.7	3.91 (3.70-4.14)	59.6	23.8	2.50 (2.35-2.66)	60.9	18.7	3.26 (3.09-3.45)
<i>Mean number of family physician contacts (SD)*</i>	3.1 (3.0)	0.8 (1.2)	/	3.2 (3.0)	0.8 (1.3)	/	3.3 (3.0)	1.3 (2.1)	/	3.4 (3.0)	1.0 (1.7)	/
<i>Mean number of primary caregiver contacts (SD)*</i>	9.0 (6.2)	2.3 (4.0)	/	9.4 (6.0)	2.2 (3.9)	/	9.3 (6.1)	3.8 (5.3)	/	10.6 (5.6)	2.6 (4.2)	/
Indicators of inappropriate end-of-life care												
<i>Hospital death</i>	39.0	74.8	0.52 (0.51-0.54)	39.7	74.8	0.50 (0.48-0.52)	34.8	69.6	0.50 (0.48-0.52)	36.4	69.9	0.52 (0.50-0.54)
<i>Hospital admission</i>	27.4	60.8	0.45 (0.43-0.47)	27.4	59.7	0.46 (0.44-0.48)	21.9	55.6	0.39 (0.37-0.42)	25.2	56.2	0.45 (0.43-0.47)
<i>ICU admission</i>	18.3	40.4	0.45 (0.43-0.48)	18.2	39.0	0.47 (0.44-0.49)	14.8	36.5	0.41 (0.37-0.44)	16.5	36.9	0.45 (0.42-0.48)
<i>ED admission</i>	15.2	28.1	0.54 (0.51-0.57)	15.0	27.2	0.55 (0.52-0.59)	13.0	25.7	0.51 (0.46-0.56)	14.7	26.7	0.55 (0.51-0.59)
<i>Diagnostic testing</i>	27.2	63.2	0.43 (0.41-0.45)	27.2	62.1	0.44 (0.42-0.46)	21.5	56.5	0.38 (0.36-0.41)	24.7	59.6	0.42 (0.40-0.44)

<i>Blood transfusion</i>	2.7	5.9	0.47 (0.40-0.54)	2.8	5.7	0.49 (0.42-0.58)	2.3	5.8	0.39 (0.31-0.49)	2.3	5.4	0.42 (0.34-0.51)
<i>Surgery</i>	0.5	2.8	0.19 (0.14-0.26)	0.5	2.7	0.19 (0.14-0.27)	0.3	2.6	0.13 (0.08-0.23)	0.5	2.5	0.18 (0.12-0.28)

* P<0.0001 calculated using two-sided T-test statistic.

Supplementary table 2: Sensitivity analyses using different intervention models to calculate healthcare costs in the last 14 days of life; presented as means (SE)

	Model: Use of allowance for palliative home patient			Model: Use of a multidisciplinary palliative home care team			Model: Use of palliative nursing care or physiotherapy for palliative patients at home		
	Yes n=7972	No n=7972	Incremental cost (95%CI)	Yes n=8216	No n=8216	Incremental cost (95%CI)	Yes n=6171	No n=6171	Incremental cost (95%CI)
Total inpatient costs	1775 (32.2)	4118 (47.6)	-2343 (2230-2456)	1585 (43.8)	3864 (66.4)	-2279 (2122-2435)	1634 (35.9)	3821 (53.1)	-2187 (2061-2313)
Total outpatient costs	1330 (12.3)	519 (9.1)	811 (781-841)	1310 (15.7)	687 (14.4)	623 (581-664)	1496 (14.0)	595 (10.7)	901 (866-935)
Total costs	3105 (29.8)	4637 (46.7)	-1532 (1423-1640)	2895 (40.9)	4551 (64.2)	-1656 (1506-1805)	3129 (32.8)	4416 (52.0)	-1287 (1166-1407)

SE = standard error ; All costs expressed in 2017 euros. Costs were calculated using data on all reimbursed medical care costs and rounded. Total inpatient costs included all specific intervention and medication costs in the hospital. Total outpatient costs included all specific intervention and medication costs outside the hospital.

Supplementary box 1: Determination of inpatient and outpatient care costs

Persons affiliated to the Belgian National Institute for Health and Disability Insurance are entitled to reimbursement of the cost of healthcare services· treatments and fees provided that the services in question meet certain requirements. Not every healthcare profession or service is entitled to reimbursement.

A list of reimbursable services or **acts** for each profession· the so called **nomenclature** assigns a specific code (nomenclature code) to each act that determines the financial cost and is used as a base for the reimbursement of healthcare costs. **Nomenclature codes** can be divided into acts which are assigned to ambulatory care i.e. outpatient care and institutionalized care i.e. inpatient care. There are more than 26 thousand reimbursed acts.

Inpatient or institutionalized care refers to any medical service or act that requires an hospitalization or an act which is provided during an admission and stay into a hospital. To qualify as an inpatient· a patient must be under the care of a physician while staying overnight in the hospital.

Outpatient or ambulatory care includes all acts that does not require an overnight stay in a hospital or medical facility. Outpatient care is mainly administered in a medical office· hospital· nursing home facility or at home.

The total cost is the sum of all inpatient and outpatient acts described in the nomenclature.