

Palliative Care at UT Southwestern: Impact and Savings

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Background

Dealing with the stress and symptoms of a serious illness is difficult and research has shown that palliative care can impact and improve many areas of a patient's life. Without an understanding of the cost savings that result from palliative care, it is difficult to incentivize hospitals to invest in a dedicated palliative care team.

Objective – Topic Presented

The purpose of this analysis was to **measure the impact and value** of palliative care services on hospital charges in the five days prior to death—the most expensive time of a patient's life^{1,2}— and **identify hospital service categories** and **patient financial classes** yielding the highest savings from palliative care consultation.

Methods

Study Population

- UT Southwestern patients admitted to the hospital between October 1, 2013, and September 30, 2016.
- Palliative care patients were defined as any patient who received at least one completed palliative care consult order.

Propensity Score Matching (PSM) Method

- Patients with a similar diagnosis don't require palliative consults at the same time.
- The method matches patients based on the same **probability** of qualifying for a palliative care consult.

Cost Data

- All costs were pulled for last 5 days of total hospital stay.
- Hospital costs included both direct and indirect costs for the patient services and not the actual charge to the patient.
- Categories were generated using the universal billing categories.



PSM Model Characteristics Included:

- Age Category
- Race
- Ethnicity
- Gender
- Elixhauser Comorbidity Index³
- Primary Disease

Results

Patient Financial Class

When total hospital charges were stratified by consult status and financial class, **charity/self-pay and Medicaid patients saved the most** with an average of \$14,148 and \$12,041, respectively.

All mean differences were considered statistically significant for all financial classes with the exception of low income and exchange patients.

Financial Class	Palliative Care Consult		No Palliative Care Consult		Difference in Mean Charges	P-value
	N	Mean Charges	N	Mean Charges		
Medicaid	44	\$17,617	46	\$29,658	-\$12,041	<0.0001
Medicare	148	\$18,258	140	\$24,485	-\$6,227	<0.0001
Low Income	8	\$20,379	9	\$25,219	-\$4,840	0.363
Private	87	\$23,578	96	\$34,080	-\$10,502	0.000
Charity/Self-Pay	11	\$15,836	6	\$29,984	-\$14,148	0.002
Exchange	1	\$19,032	2	\$14,524	\$4,508	0.465

Billing Group	Palliative Care Consult		No Palliative Care Consult		Difference in Mean Charges	P-value
	N	Mean Charges	N	Mean Charges		
Ancillary	299	\$271	299	\$457	-\$186	<0.0001
Anesthesia	299	\$102	299	\$205	-\$102	0.704
Room and Bed	299	\$8,640	299	\$9,532	-\$891	<0.0001
Blood	299	\$604	299	\$1,236	-\$632	0.090
Cardiology	299	\$94	299	\$203	-\$110	0.136
Dialysis	299	\$489	299	\$1,002	-\$513	0.365
Emergency Department	299	\$22	299	\$9	\$13	-
Gastrointestinal Services	299	\$22	299	\$50	-\$28	0.204
Implants	299	\$286	299	\$475	-\$189	0.695
Lab	299	\$1,391	299	\$2,454	-\$1,063	<0.0001
Medical/Surgical Devices	299	\$937	299	\$548	\$389	0.000
Operational Services	299	\$467	299	\$917	-\$450	0.996
Other Procedures	299	\$707	299	\$1,600	-\$893	0.976
Pharmacy	299	\$3,474	299	\$6,239	-\$2,765	<0.0001
Prosthetics/Orthotics	299	\$1	299	\$10	-\$9	-
Radiation Therapy	299	\$27	299	\$22	\$5	-
Radiology	299	\$566	299	\$976	-\$410	0.000
Respiratory Therapy	299	\$1,386	299	\$2,196	-\$810	<0.0001
Therapy	299	\$196	299	\$295	-\$99	<0.0001
Total	299	\$19,682	299	\$28,427	-\$8,746	<0.0001

Hospital Service Categories

-\$2,765 Pharmacy

-\$1,063 Labs

-\$891 Room & Bed

Overall, there was a **significant difference in charges** between those that received a palliative care consult and those that did not.

The highest savings were in pharmacy and lab charges, which suggest that unnecessary **labs and medications are discontinued** in an effort to improve patient comfort and reduce costs.

References

1. Lubitz, James D., and Gerald F. Riley. "Trends in Medicare payments in the last year of life." *New England journal of medicine* 328.15 (1993): 1092-1096.
2. Riley, Gerald F., et al. "Medicare payments from diagnosis to death for elderly cancer patients by stage at diagnosis." *Medical care* 33.8 (1995): 828-841.
3. Elixhauser, Anne, et al. "Comorbidity measures for use with administrative data." *Medical care* 36.1 (1998): 8-27.