

# Outcomes of Palliative Care Consults With Hospitalized Veterans

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Families and patients receive emotional support and better care planning after palliative care consultations.

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Inpatient palliative care (IPC) consultation services have been widely adopted in US hospitals. Outcomes research has demonstrated improved quality of life (QOL) for palliative inpatients for symptom control and satisfaction with care.<sup>1-5</sup> Families benefit from emotional support, care planning, and transitions of care.<sup>4,6-8</sup> Outcomes, including hospital length of stay, hospital costs, and discharge disposition also seem to improve.<sup>9-17</sup> The Department of Veterans Affairs (VA) provides palliative care (PC) consultation teams at its hospitals nationwide; however, few studies exist to show how a PC service is used at a VA hospital. The following study of a PC consult team at an urban VA facility provides a unique picture of how a PC team is used.

## METHODS

The John Cochran Division of the VA St. Louis Health Care System (VASLHCS) in Missouri is a 509-bed adult acute care hospital with medical and surgical specialties and subspecialties available for veterans, including an intensive care unit (ICU). The PC team is one of the subspecialty teams following patients after consultation and consists of a PC physician, nurse practitioner, chaplain, social worker, and psychologist.

## Data Collection

This study was exempt from internal review board approval. The attending physician kept track of each IPC encounter between September 2014 and April 2016. Data were retrieved from the Computerized Patient Record System by identifying charts that included family meeting notes during the

specified time. All 130 patients included in this study were followed by the PC team. Patient charts were reviewed, and information was uploaded to spreadsheets, which became the database for this study. The data included age, patient location, diagnosis, number of days between admission and PC consultation, and number of days between admission and family meeting. Other data included code status changes and discharge dispositions. Only consultations that resulted in direct patient contact were included.

The VASLHCS requires therapeutic support level (TSL), or code status, documentation by the attending physician regarding the discussion with a competent patient or valid representative if the patient is incapacitated. Levels of support are TSL I “no limitation on care,” TSL II “partial code,” that is, usually no cardiopulmonary resuscitation or do not intubate with selected medical measures to continue, and TSL III “comfort measures only.” If a patient’s code level changed after IPC consultation, the change is recorded.

## Data Analysis

The files were purged of all unique personal health history. Because there was no control group, multivariable analyses of association were not warranted. Analysis was confined to descriptive measures.

## RESULTS

A total of 130 patients with IPC consultations were included in this retrospective study conducted from September 2014 to April 2016 (Table 1). Most of the IPC consultations came from the ICU (54.6%),

followed by medical and surgical care units. Most common diagnoses were metastatic cancer (24%), dementia (17%), respiratory failure (13%), stroke (7%), and septic shock and liver failure (5%) for which IPC consultations were requested.

The scope of IPC consultations usually include medical recommendations about symptom management, discharge planning, discussion about goals of care (GOC), code status and prognosis, managing expected in-hospital expirations (deaths), and determination of hospice eligibility. Of the IPC cohort, 74% were aged > 65 years; 26.1% were aged < 65 years (Table 2). During the study, only 3 of 130 (2%) patients died who were TSL I in the hospital; the majority were discharged to hospice care (80%).

The mean days for an initial IPC consultation following admission was 3 on the medical/surgical floors and 7 days for ICU ( $P = .003$ ; 95% CI, -6.37 to 1.36). The number of days from admission to family meeting was 6.4 days on the medical/surgical floors, 10.4 days in ICU ( $P = .01$ ; 95% CI, -7.21 to 0.81) (Table 3). Overall, 80% of consultation patients were discharged with hospice services.

## DISCUSSION

Although small, the proportion of patients with serious illness or multiple chronic conditions account for a disproportionately large portion of health care spending.<sup>18</sup> Despite the high cost, evidence demonstrates that these patients receive health care of inadequate quality characterized by fragmentation, overuse, medical errors, and poor QOL. Multiple studies show that IPC consultation provides improved patient outcomes and decreased hospital costs.<sup>9-17</sup>

From a purely outcomes-based interpretation, IPC consultation was associated with 83% of patients receiving a change in code status from full code/TSL 1. The study team drew 2 main conclusions from the data: (1) The IPC consultation is an effective way to broach GOC discussion and adjust code status; and (2) These data suggest room for earlier PC involvement. Remarkably, only 3 patients (2%) expired while inpatient with full code status.

The data also provide a unique compar-

**TABLE 1** Patient Characteristics (N = 130)

Characteristics	Result
Age, mean, y	72.4
Days to IPC after admission, mean, No.	5.2
Location, No. (%)	
Intensive care unit	71 (54.6)
Medical or surgical floor	57 (43.8)
Emergency department	1 (0.8)
Palliative care clinic	1 (0.8)
Patient diagnosis type, No. (%)	
Metastatic cancer	31 (24)
Dementia	22 (17)
Respiratory failure	17 (13)
Stroke	9 (7)
Septic shock and liver failure	7 (5)
Cardiac etiology	4 (3)

Abbreviation: IPC, inpatient palliative care.

ison of timing of PC referrals. Pantilat and colleagues published characteristics of PC consultation services in California hospitals, and on average, patients were in the hospital 5.9 days (median 5.5; SD 3.3) prior to referral.<sup>19</sup> This study's average number of days for initial IPC consultation following admission was 3 days on the medical/surgical floors and 7 days in the ICU. Both time frames seem reasonable but again indicate some potential improvement for earlier IPC utilization.

Although the time frame of the intervention limited the number of patients in this study, early PC consultations in the acute care setting are a helpful intervention for veterans and families to better understand the complexity of their medical condition and prognosis and allow for a frank and open discussion about realistic goals. The importance of these discussions also were reflected in the high percentage of patients transitioning to hospice level of care (80%) and the low number of patients who remained full code (3 of 130). Other studies have shown conflicting results when interventions have been exclusively for cancer patients. In this study, 45% of patients were admitted with diagnoses other than cancer compared with 24% of patients with related diagnoses in a study by Gonsalves and colleagues.<sup>20</sup>

In this study, the majority (71.6%) of

**TABLE 2** Patient Age and Discharge Disposition

Disposition	Aged < 65, No. (%)	Aged 65-74, No. (%)	Aged ≥ 75, No. (%)
With hospice (n = 105)	28 (82.3)	36 (78.3)	41 (82)
Without hospice (n = 22)	5 (14.7)	9 (19.6)	8 (16)
Expired in hospital TSL 1 (n = 3)	1 (3)	1 (2.1)	1 (2)
Total (n = 130)	34 (26.1)	46 (35.4)	50 (38.5)

**TABLE 3** Floor vs ICU Consultations

Variables	Medical/Surgical Floor	ICU
Patients, No.	57	72
Age, mean, y	75.0	70.2
Days to IPC consultation, mean, No.	3.1	7.0
Days to FM since admission, No.	6.4	10.4
Initial code status, No. (%)		
TSL 1	48 (84)	60 (83)
DNR/DNI	9 (16)	11 (15)
TSL 3	0 (0)	1 (2)
Discussion, No. (%)		
Patient only	2 (3.5)	4 (5.5)
Patient & family	17 (30)	14 (19)
Family only	38 (66)	54 (75)
GOC change after first FM, No. (%)	33 (58)	34 (47)
Hospice at discharge, No. (%)	47 (82)	55 (76)
Days after first FM, No.	13.2	10.8

Abbreviations: DNR/DNI, do not resuscitate/do not intubate; FM, family meeting; GOC, goals of care; ICU intensive care unit; TSL, therapeutic support level.

family meetings were held only with family (no patient involvement), resulting in missed opportunities for earlier patient and PC involvement especially for those patients with serious medical illnesses.

A systematic review published by Wendler and colleagues found that surrogate decision makers often find that role troubling and traumatizing even with advance directive documents.<sup>21</sup> Earlier identification and PC consultations could initiate discussions between patients and their loved ones to decide “when enough is enough,” and about whether or not to prolong the dying process, when compatible with the patient’s wishes.

Early PC consultations also could highlight a potential highly vulnerable population of medically unbefriended patients (elder orphans). These patients may have no one in their lives to act as surrogate decision makers. This situation calls for further interventions regarding early identification of these patients and better processes to assist in their decision making. Many physicians believe it is not appropriate to begin advance directive planning on an outpatient basis. However, multiple studies have shown that patients want their doctors to discuss advance care planning with them before they become ill.<sup>22</sup> Many other doctors have shown a positive response from patients when advance directive discussions are held during outpatient visits.<sup>23</sup>

The goals of this study were to evaluate the effectiveness of IPC consultation on goals of care and to address code status with patients and their families. Along with these conversations, the study team provided comprehensive PC evaluation. The PC team focused on providing excellent symptom management. The team of PC physicians, pain specialists, pain pharmacists, a chaplain, psychologists, and social workers addressed all the bio-psycho-social needs of patients/families and provided comprehensive recommendations. This multidimensional approach has gained significant acceptance.<sup>24</sup>

At VASLHCS, the program has grown to about 600 new consults per year, with a dedicated inpatient hospice unit, daily outpatient clinic, and myriad learning opportunities for trainees; the center has become a main site of rotation for hospice and palliative care fellows from training programs in St. Louis.

Utilization of PC consultation to help meeting the veterans’ needs at the bio-psycho-social level will also provide a benefit for the facility as it will decrease observed/expected standardized mortality ratio (SMR) data. This reduction of SMR data will be a result of successful patient transitions to hospice level of care at least 12 months prior to their passing or if their level of care is changed to inpatient hospice after they are admitted, the patients won’t be included as acute care mortality. However, with this initial small group of patients it was not possible to retrospectively calculate the impact on SMR or SAIL (Strategic Analytics for

Improvement and Learning) indicators. The long-term expectation is to have a positive impact on those indicators represented by decreased inpatient mortality and improved SAIL.

### Limitations

This study was a single-institution study, but every institution has its own internal culture. The team did not have a concurrent or historic control for comparison or use a questionnaire for patients and families rating their satisfaction.

### CONCLUSION

This study provides multiple future directions of research as the authors now have baseline data about how the service is used. Future areas of interest would be to study the effectiveness of early palliative care interventions, such as a provider education series, implementation of consultation criteria, and prospective measurement of the impact of palliative care consultations on the SMR and SAIL indicators. This research could help identify which early interventions show the best efficacy, an area where research is notably lacking.<sup>25</sup>

### Author disclosures

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### Disclaimer

The opinions expressed herein are those of the authors and do not necessarily reflect those of *Federal Practitioner*, Frontline Medical Communications Inc., the US Government, or any of its agencies.

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