

Development and implementation of a palliative care consultation tool

ALEXEI TROUT, B.S.,¹ KENNETH L. KIRSH, PH.D.,² AND JOHN F. PEPPIN, D.O., F.A.C.P.^{1,2,3}

¹St. Joseph's Hospital, Continuing Care Hospital, Lexington, Kentucky

²The Pain Treatment Center of the Bluegrass, Lexington, Kentucky

³The Palliative Care Service, Hospice of the Bluegrass, Lexington, Kentucky

(RECEIVED April 15, 2011; ACCEPTED August 12, 2011)

ABSTRACT

Objective: Palliative care services are becoming more commonplace in hospitals and have the potential to reduce hospital costs through length of stay reduction and remediation of symptoms. However, there has been little systematic attempt to identify when a palliative care consultation should be triggered in a hospital, and there is some evidence that these services are under-utilized and not fully understood.

Method: In an initial attempt to address when a consultation might be appropriate, we attempted to pilot test a novel palliative care screening tool to help guide clinician judgment in this regard. A one-page, face-valid instrument was developed using expert opinion.

Results: The sample comprised 33 men (44.6%) and 41 women (55.4%) with an average age of 63.4 years (SD = 13.8) and an average length of stay of 22.7 days (SD = 10.1). The most significant symptom was pain, indicated as moderate-to-severe in 23 patients (31%). This was followed by fatigue ($n = 10$, 13.5%) and nausea ($n = 6$, 8.1%). At unit entry, 20 patients (33%) had moderate or severe pain. Upon discharge, this number had been reduced to 12/60 (20%). Chi-Square analysis showed a significant decrease in pain rankings overall ($\chi^2 = 36.3$, $p < 0.0001$). The average total tool score was 7.5 (SD = 3.1). Using an initial threshold of 12 to trigger a palliative care referral, 64 patients (86.5%) would not have received a referral and 10 (13.5%) would have. Of these 10 patients, 2 (20%) did not receive a palliative care consultation while they were hospitalized.

Significance of results: The tool we developed increased consultations over the time period in which it was used, compared with the same time period 1 year prior. Although the threshold developed for triggering referrals seemed artificially high, the implementation of the screening tool did increase referrals.

KEYWORDS: Palliative care, Consultation, Pain

INTRODUCTION

Palliative medicine services are becoming more common in acute care hospitals. Although originally designed to help patients at the end of life, palliative medicine services have broadened their role and are often consulted for specific symptom management as well, for example, pain complaints. Overall, the goal is to provide symptom management and

information, offer help with decision making, and act as a conduit between other physicians and the patient and family, while saving money for the hospital system (Passik et al., 2004). Definitions of palliative care are remarkably consistent. Comparing five such definitions (the World Health Organization, The National Council for Palliative Care, The Center to Advance Palliative Care, the American Academy of Hospice and Palliative Medicine, and the Palliative Care Foundation), three major points are commonly included (American Academy of Hospice and Palliative Medicine, 2011; The Center to Advance Palliative Care, 2011; National Council for Palliative Care,

Address correspondence and reprint requests to: John F. Peppin, Clinical Research Division, The Pain Treatment Center of the Bluegrass, 2416 Regency Road, Lexington, Kentucky 40503.
E-mail: johnpeppin@msn.com

2012; Palliative Care Foundation, 2012; World Health Organization, 2012). These commonalities include:

1. Pain and symptom management;
2. Improved quality of life; and
3. Implementation of palliative care early in the disease course.

In addition, the National Consensus Project for Quality Palliative Care has identified eight domains from which a palliative care program can be evaluated: (1) Structure and Process of Care; (2) Physical Aspects of Care; (3) Psychological and Psychiatric Aspects of Care; (4) Social Aspects of Care; (5) Spiritual, Religious and Existential Aspects of Care; (6) Cultural Aspects of Care; (7) The Imminently Dying Patient; and (8) Ethical and Legal Aspects of Care (Grant et al., 2009). Even though the definitions are consistent, and there are evaluative measures available, palliative care services tend to be varied in format, structure, and services offered (Schuurman et al., 2010). Utilization is extremely varied as well. Rodriguez showed that palliative care services in acute care hospitals are under-utilized and not fully understood (Rodriguez et al., 2007). Research has also suggested that overall utilization of palliative medicine services is varied and that personal, interpersonal and inter-professional factors play a powerful role (Walshe et al., 2008). Despite this lack of standardization and consistency in function and commonality of definition, palliative care services have been shown to be beneficial both clinically and financially (Passik et al., 2004; Penrod et al., 2006; Ciemens et al., 2007; Temel et al., 2010). In addition, provider satisfaction and caregiver satisfaction have also been shown (O'Mahony et al., 2005). Further, palliative care services, for example, pain control, have been shown to be "durable" and consistent in 70% of patients as their lives progress to the end (Morrough et al., 2010).

Many studies have been performed on patient outcomes and symptom assessment, but there is a lack of research on consultation triggers and understanding the constituents of an appropriate palliative medicine referral. The current study was undertaken in a Continuing Care Hospital (CCH) at an urban tertiary care hospital in Lexington, Kentucky. This unit is a long-term acute care rehabilitation facility that routinely admits patients with multiple comorbidities, infectious etiologies, and symptoms. The unit consists of 30 individual beds with a nurse-to-patient ratio of either three ventilator patients to one nurse, two endotracheal tube patients to one nurse, or five non-ventilator patients to one nurse. The Palliative Medicine Service has been providing

care to this Unit for the last 11 years. To evaluate a screening tool for potential palliative care consultations, and as part of a quality improvement project of the CCH, a novel Palliative Care Consultation Tool was developed (Figure 1).

METHOD

A one-page instrument was developed using expert opinion. A small group of experts involved in the palliative care service were asked to give input on what would constitute an appropriate signal that might indicate the need for a palliative care consultation. From this list of potential signals, the following was included in our tool: basic and co-morbid diseases; Eastern Cooperative Oncology Group (ECOG) status; and level of symptoms (severity of pain, depression, fatigue, nausea, cognitive impairment, and dyspnea). Point values were identified for each of the variables to create a threshold level to initiate a need for a palliative care consultation. This threshold was artificially set as ≥ 12 . Each basic disease constituted a two-point increase, whereas co-morbid diseases were assigned one point. ECOG status was reported from 0 to 4 as functional status decreased. For each symptom, patients were asked if they had the symptom and then were asked a rating using a Likert scale from 0 to 10; 0 being none and 10 being the worst possible imagined. However, for the tool calculations, symptom severity was valued from 0 to 3 (patient rating responses of none were valued as 0, 1–3 as 1, 4–6 as 2, and 7–10 as 3).

Upon admission, patient data were collected using the tool. This data collection was performed by charge nurses and a trained research assistant (AT). Pain data were also collected upon discharge. Disease information was gathered using history and physical examinations, whereas ECOG and symptom severity were reported using patient interviews. If the threshold of 12 was triggered, then a note reading, "Have you considered a palliative care consultation?" was placed in the chart directed to the admitting physician on a standard physician communication form. It was then up to the patient's admitting physician to ask for a palliative care consultation. This project was part of the quality improvement efforts of the CCH and was reviewed by the leadership of the hospital and ethics committee. It was administered to all admissions over a 10-week period. Every patient admitted, regardless of ability to answer questions or status, received the tool.

RESULTS

The sample comprised 33 men (44.6%) and 41 women (55.4%) with an average age of 63.4 years (SD = 13.8)

Patient Name:	_____	Total Score: 0-12: Palliative care consultation unlikely helpful 12: Palliative care consultation helpful <input type="checkbox"/> MD/DO Notified <input type="checkbox"/> Consult Received
Room Number:	_____	
DOB:	_____	
Date of Admission:	_____	
1. Basic Disease Process (check all that apply, score 2 points for each)		
___ a.	Cancer (metastatic/recurrent)	
___ b.	Advanced COPD	
___ c.	Stroke (with decreased function at least 50%)	
___ d.	End stage renal disease	
___ e.	Advanced congestive heart failure	
___ f.	Advanced heart disease	
___ g.	Other: _____	
2. Concomitant Disease Processes (check all that apply)		
___ a.	Liver disease	
___ b.	Diabetes	
___ c.	Moderate renal disease	
___ d.	Moderate COPD	
___ e.	Moderate congestive heart failure	
___ f.	Pressure Ulcers	
___ g.	Fractures	
___ h.	Other: _____	

Fig. 1. Initial version of palliative care consultation tool.

and an average length of stay of 22.7 days (SD = 10.1). A total of 56 patients (75.7%) were able to be interviewed using the tool, whereas 17 (23%) were not alert at the time of interview, and 1 (1.4%) refused. The most significant symptom was pain, indicated as moderate-to-severe in 23 patients (31%). This was followed by fatigue ($n = 10$, 13.5%) and nausea ($n = 6$, 8.1%). The average ECOG score was 3.1 (SD = 1). Sixty patients had both admission and discharge pain ratings. At unit entry, 20 patients (33%) had moderate or severe pain. Upon discharge, this number had been reduced to 12/60 (20%).

Chi-Square analysis showed a significant decrease in pain rankings overall ($\chi^2 = 36.3$, $p < 0.0001$). The average total tool score was 7.5 (SD = 3.1). Using an initial threshold of 12 to trigger a palliative referral, 64 patients (86.5%) would not have received a referral and 10 (13.5%) would have. Of these 10 patients, 2 (20%) did not receive a palliative care consultation while they were hospitalized. The number of referrals for palliative care versus the total number of admissions was measured for the 10 weeks in which the instrument was implemented. This was compared to the 4 months prior to using the tool.

3. Rate the ECOG status.

Grade	ECOG
0	Fully active, able to carry on all pre-disease performance without restriction
1	Restricted in physically strenuous activity but ambulatory and able to carry out work of a light or sedentary nature, e.g., light house work, office work
2	Ambulatory and capable of all self-care but unable to carry out any work activities. Up and about more than 50% of waking hours
3	Capable of only limited self-care, confined to bed or chair more than 50% of waking hours
4	Completely disabled. Cannot carry on any self-care. Totally confined to bed or chair

4. Rate the level of severity for the following symptoms by circling the most appropriate number.

<u>SYMPTOM:</u>	NONE	MILD	MODERATE	SEVERE
Pain	0	1	2	3
Depression	0	1	2	3
Cognitive Impairment	0	1	2	3
Fatigue	0	1	2	3
Dyspnea	0	1	2	3
Nausea	0	1	2	3

Fig. 1. (Continued).

The pre-implementation months had 46 palliative care referrals out of 129 total admissions (35.7%). In comparison, 28 of 74 patients (37.8%) were referred during the months in which the tool was used. Physicians' attitudes concerning palliative care

services were seen empirically in some of the responses (or lack of responses) when the threshold was met. One physician wrote back, "The patient is alert and oriented and does not need palliative care." Other physicians simply ignored the request.

DISCUSSION

Referrals to a palliative care service may decrease costs, improve quality of life, improve symptom management, and reduce patient suffering. However, exactly when and how a referral should be made has not been adequately evaluated in the literature. Because utilization of palliative care is varied and at times confused, a simple tool that provides physicians, or nurses, with the ability to suggest a consultation could be very helpful. The tool we developed increased consultations over the time period in which it was used compared with the same time period 1 year prior. Although the threshold developed for triggering referrals seemed artificially high, the implementation of the screening tool did increase referrals. The increase in referrals might be explained by the “consciousness-raising” of suggesting a palliative care consultation. One of the secondary outcomes, pain level, was shown to be dramatically reduced once a palliative care consultation was obtained. This further indicates the potential efficacy of a palliative care consultation.

CONCLUSIONS

What was found empirically in our study has also been seen in other reports; physicians lack a firm understanding of what palliative medicine is and what services it can offer (Ho et al., 2011). Future studies will focus on identifying the best referral cut-point and tool streamlining to identify the most salient issues, as well as general staff acceptance.

REFERENCES

- American Academy of Hospice and Palliative Medicine. (2011). <http://www.aahpm.org/about/default/college.html>.
- Center to Advance Palliative Care. (2011). Palliative Care Defined. <http://www.capcmssm.org/palliative-care-defined.html> (Accessed on February 2012).
- Ciemens, E., Blum, L., Nunley, M., et al. (2007). The economic and clinical impact of an inpatient palliative care consultation service: A multifaceted approach. *Journal of Palliative Medicine*, 10, 1347–1355.
- Grant, M., Elk, R., Ferrell, B., et al. (2009). Current status of palliative care clinical implementation, education, and research. *CA: A Cancer Journal for Clinicians*, 59, 327–335.
- Ho, L.A., Engelberg, R.A., Curtis, J.R., et al. (2011). Comparing clinician ratings of the quality of palliative care in the intensive care unit. *Critical Care Medicine*, 39, 975–983.
- Morrogh, M., Miner, T.J., Park, A., et al. (2010). A prospective evaluation of the durability of palliative interventions for patients with metastatic breast cancer. *Cancer*, 116, 3338–3347.
- National Council for Palliative Care. (2012). Palliative care explained. http://www.ncpc.org.uk/palliative_care.html.
- O'Mahony, S., Blank, A.E., Zallman, L., et al. (2005). The benefits of a hospital-based inpatient palliative care consultation service: Preliminary outcome data. *Journal of Palliative Medicine*, 8, 1033–1039.
- Palliative Care Foundation. (2012). http://foundation.palliativecare.org.au/about_palliative.asp.
- Passik, S.D., Ruggles, C., Brown, G., et al. (2004). Is there a model for demonstrating a beneficial financial impact of initiating a palliative care program by an existing hospice program? *Palliative & Supportive Care*, 2, 419–423.
- Penrod, J., Deb, P., Luhrs, C., et al. (2006). Cost and utilization outcomes of patients receiving hospital-based palliative care consultation. *Journal of Palliative Medicine*, 9, 855–860.
- Rodriguez, K., Barnato, A. & Arnold, R. (2007). Preceptions and utilization of palliative care services in acute care hospitals. *Journal of Palliative Medicine*, 10, 99–110.
- Schuurman, N., Crooks, V.A. & Amram, O. (2010). A protocol for determining differences in consistency and depth of palliative care service provision across community sites. *Health & Social Care in the Community*, 18, 537–548.
- Temel, J.S., Greer, J.A., Muzikansky, A., et al. (2010). Early palliative care for patients with metastatic non-small-cell lung cancer. *New England Journal of Medicine*, 263, 733–742.
- Walshe, C., Chew-Graham, C., Todd, C., et al. (2008). What influences referrals within community palliative care services? A qualitative case study. *Social Science & Medicine*, 67, 137–146.
- World Health Organization. (2012). WHO definition of palliative care. <http://www.who.int/cancer/palliative/definition/en/> (Accessed on February 2012).