

Center to Advance Palliative Care Palliative Care Consultation Service Metrics: Consensus Recommendations

David E. Weissman, M.D.,¹ Diane E. Meier, M.D.,² and Lynn Hill Spragens, M.B.A.³

Abstract

The need to standardize the prospective collection and analysis of data has been a cornerstone of education and technical assistance provided by the Center to Advance Palliative Care (CAPC). Data analysis is vital for strategic planning, quality improvement, and demonstration of program impact to hospital administrators, private funders, and policymakers. To develop a set of core measures, CAPC convened a consensus panel in 2008 to focus on the topic of operational metrics for consultation services. Operational metrics, as distinct from clinical, customer and financial metrics, describe the characteristics of patients seen on the consultation service, such as age, disease, location, referring service and disposition. The panel arrived at 12 metric domains, all but one of which can be used for either internal programmatic use or for external comparisons of service characteristics/impact between different hospitals. In an effort to ensure access to reliably high-quality palliative care data throughout the nation, hospital palliative care consultation teams are encouraged to collect and report outcomes for each of the twelve metric domains described here.

Introduction

PALLIATIVE CARE PROGRAMS are rapidly becoming the norm in American hospitals, with more than 70% of large (more than 200-bed) hospitals reporting the presence of a program in the American Hospital Association's 2006 annual hospital survey. For almost 10 years, the Center to Advance Palliative Care (CAPC: www.capc.org) and its six Palliative Care Leadership Centers™ (www.capc.org/pclc) have provided outreach and technical assistance to more than 1200 U.S. hospitals during the start and growth of their palliative care programs. As one means of ensuring program quality

and sustainability, CAPC faculty have consistently taught that programs must measure key operational, clinical, customer, and financial data from the outset of clinical service delivery (Table 1). However, because there is no widely accepted or standard set of metrics for hospital palliative care services, CAPC convened a consensus development process among a range of leaders in the field in an effort to establish common and comparable measures.

Previous efforts to establish clinical practice guidelines and frameworks for preferred practices have been developed by consensus and best-evidence review processes. These include the National Consensus Project for Quality Palliative

TABLE 1. METRIC CATEGORIES

<i>Domain</i>	<i>Examples</i>
Operational metrics	Date of consult, diagnosis, referring physician/service, patient age, patient gender, disposition, hospital length of stay
Clinical metrics	Symptom control scores, psychosocial assessment scores
Customer metrics	Satisfaction survey data: patient, family, referring physician
Financial metrics	Daily pre- and postconsultation hospital cost, net loss/gain for inpatient deaths, Case-mix index

¹Department of Neoplastic Diseases, Medical College of Wisconsin, Milwaukee, Wisconsin.

²Department of Geriatrics and Internal Medicine, Mount Sinai School of Medicine, New York, New York.

³Spragens & Associates, Durham, North Carolina.

TABLE 2. SUGGESTED PROSPECTIVE DATA ELEMENTS TO ANALYZE CONSULTATION SERVICE OPERATIONAL DATA

Patient ID number
Patient age, gender, race/ethnicity
Consultation diagnosis
Referring service and/or referring physician
Date of hospital admission
Date of hospital discharge
Date of consultation
Disposition: inpatient death vs. discharge
Hospice discharges

Care (www.nationalconsensusproject.org), the National Comprehensive Cancer Network (www.nccn.org) Palliative Care Guidelines, the National Quality Forum (www.qualityforum.org), and the The Joint Commission’s Palliative Care Certificate Program. In most hospitals, a first step in organizing palliative care programs to meet these guidelines has been to organize an interdisciplinary palliative care consultation service. Tracking operational data about patients seen by the consultation service (e.g., diagnosis, referring service, disposition) is necessary to assess the effectiveness of program outreach, marketing and education efforts in reaching

TABLE 3. PALLIATIVE CARE CONSULTATION SERVICE METRICS FOR INTERNAL USE (I) AND EXTERNAL COMPARISON (E)

<i>Domain</i>	<i>Measure</i>	<i>Use</i>	<i>Comment</i>
1. Consultation volume		I/E	
Palliative care consultations ^a	N (%)		A, B
Other consultations	N (%)		B
2. Palliative care consultation rate	Consults/100 admissions	I/E	C
3. Patient demographics		I/E	
Female	N (%)		
Male	N (%)		
Asian/Pacific Islander	N (%)		
African American/Black	N (%)		
Caucasian	N (%)		
Hispanic/Latino	N (%)		
Native American/Alaska Native	N (%)		
Other	N (%)		
4. Disease distribution		I/E	D
Cancer	N (%)		
Noncancer	N (%)		
5. Location of Consult Origin		I/E	
Ward	N (%)		
Intensive care (ICU)	N (%)		
Emergency department (ED)	N (%)		
6. Age distribution		I/E	
Adult programs			
Age 18–65	N (%)		
Age > 65	N (%)		
Pediatric programs			
Age 0–1	N (%)		
Age 2–18	N (%)		
7. Consults by referring service and/or physician	N (%)	I	E
8. Discharge distribution		I/E	
Live discharges	N (%)		
Inpatient deaths	N (%)		
9. Hospital discharges	N (%)	I/E	F
10. Length of stay (LOS)	Time from admission to consult, consult to discharge and total length of stay (median and mean)	I/E	G
11. Length-of-stay outliers		I/E	H
Admission to consultation > 30 days	N (%)		
Consultation to death/discharge > 30 days	N (%)		
12. Hospital deaths seen by palliative care (PC)		I/E	I
% Deaths with PC consult (any LOS)	N (%)		
% Deaths with PC consult (LOS ≤ 2 days)	N (%)		
% Deaths with PC consult (LOS > 2 days)	N (%)		

^aThis number is used as the denominator for the remaining domains (2–12).

TABLE 3. PALLIATIVE CARE CONSULTATION SERVICE METRICS FOR INTERNAL USE (I) AND EXTERNAL COMPARISON (E) (CONT'D)

Common examples	<i>Palliative care</i>	<i>Other</i>
Pain management for acute pancreatitis or sickle cell disease crisis		XX
Post-operative pain management for acute hip fracture		XX
Delirium/pain in vasculopathy patient with extremity gangrene	XX	
Appropriateness of gastrointestinal-tube placement in acute stroke patient	XX	

Comments
A. Palliative care consultation: To be considered as a consultation, a member(s) of the palliative care consultation service must have completed an evaluation and communicated the findings/recommendations to the primary physician/medical team. Consultations completed in the emergency department, whether or not the patient was admitted to the hospital, should be included in the consultation numbers.

B. Palliative care vs. other consultations: Palliative care consultations are for patients with an acute or chronic, life-threatening or life-limiting condition, for whom the specialist palliative care team member(s) are asked to provide:

- pain/symptom management and/or
- goal-of-care discussion/decisions and/or
- prognostication and/or hospice eligibility assessment and/or
- patient family support and/or
- withdrawal of life-sustaining interventions and/or
- transfer of care to a palliative care physician and/or
- transfer of care to an inpatient palliative care unit

Other consultations that fall outside the palliative care consultation definition, but may be within the scope of practice of a *particular palliative care team*, include the following conditions:

- postoperative pain/symptom management
- chronic nonmalignant pain management

C. Palliative care consultation rate: The number of palliative care consultations per 100 admissions (exclude “other consultations”). To accurately capture the depth of palliative care service integration, the total number of hospital admissions used as the denominator should *exclude* admissions from: obstetrics (except for pediatric palliative care programs), psychiatry, ophthalmology, inpatient rehabilitation, and short-stay observation unit admissions.

D. Disease distribution: The “disease” is the condition for which the consultation request was received. At a minimum, programs should report cancer vs. noncancer diseases. However, programs are encouraged to track subcategories of non-cancer diseases for internal use in program planning and impact assessment: *neurologic/neurodegenerative, cardiac, pulmonary, metabolic, GI, renal, infectious/immunology, genetic, trauma, vascular, other.*

E. Referring service and/or physician: Data for referring service and/or physician will be institution-specific; that is, it cannot be easily compared across hospitals, since each hospital tends to have unique ways of admitting and classifying admissions (e.g., in some hospitals, stroke patients are admitted to medicine, in others to neurology).

F. Hospice discharges: This number represents the percentage of palliative care consultations that result in a discharge with hospice services (Medicare Hospice Benefit or equivalent scope of service). Patients discharged and immediately readmitted to the hospital with hospice services, even if the patient does not actually leave the hospital, are included in this number.

G. Day of admission: For length-of-stay analysis, the day of admission is considered Day 0.

H. Length of stay outliers: An outlier is considered a patient for whom either the time from admission to consultation, or time from consultation to discharge, is > 30 days.

I. Hospital deaths seen by palliative care: The data table asks for three values; the first is the percentage of all hospital deaths seen by the palliative care consultation service; the remaining two values subgroup the deaths into those patients with a total length of stay greater than or less than 2 days.

patients in need, planning for program staffing to accommodate growth in demand for services, and for both program directors and hospital administrators to gauge overall program impact on care quality and use of health care services. In addition, to promote standardization and to guide staffing ratios and productivity goals, palliative care programs and their administrators require data from other hospitals for benchmarking and comparison purposes.

In the spring of 2008 a consensus panel of CAPC staff, consultants, and Palliative Care Leadership Center™ (PCLC)

faculty was convened to answer the following two questions: (1) What consultation service operational metrics should be measured to assist programs as they strive for quality, sustainability and growth? and (2) What consultation service operational metrics can be used to compare service utilization across hospitals? The panel was specifically instructed not to address operational metrics for inpatient palliative care units or clinical, customer or financial metrics, as these will be the subject of future consensus projects. The panel included interdisciplinary representation from academic and

TABLE 4. SAMPLE HOSPITAL REPORT: CONSULTATION METRICS

Consultation Service: January–December 2007	
Palliative care consultations	524 (89%)
Other consultations	66 (11%)
Palliative care consultation rate	2.7/100
Patient demographics	
Female	272 (52%)
Male	252 (48%)
Asian/Pacific Islander	25 (4%)
African American/Black	140 (24%)
Caucasian	280 (48%)
Hispanic/Latino	74 (13%)
Native American/Alaska Native	5 (1%)
Other	0 (0%)
Disease distribution	
Cancer	48%
Noncancer	52%
Location of Consult Origin	
Ward	70%
Intensive Care Unit (ICU)	22%
Emergency Department (ED)	8%
Age distribution	
≤ 65	50%
> 65	50%
Consults by referring service and/or physician	
Internal Medicine	42%
Oncology	24%
Surgery	13%
Neurology	18%
Other	3%
Discharge distribution	
Live discharges	66%
Inpatient deaths	34%
Hospital discharges	35%
Length of stay data	See Table 5.
Length-of-stay outliers	
Admission to consultation > 30 days	3.2%
Consultation to death/discharge > 30 days	2.2%
Hospital deaths seen by palliative care (PC)	
% Deaths with PC consult (any LOS)	36%
% Deaths with PC consult (LOS ≤ 2 days)	18%
% Deaths with PC consult (LOS > 2 days)	46%

TABLE 5. SAMPLE HOSPITAL REPORT: LENGTH-OF-STAY DATA

	N	Preconsult (days)		Postconsult (days)		Total LOS (days)	
		Median	Mean	Median	Mean	Median	Mean
All admissions	19,127	NA	NA	NA	NA	4	4.8
All PC Consults	524	3	6.1	4	5.6	8	11.7
Age > 65	260	3	5.5	4	5.4	8	10.9
Age ≤ 65	264	4	6.9	4	5.8	10	12.7
Ward Consult	367	3	6.3	3	4.7	10	11
ICU Consult	115	6	8.2	5	6.5	12	14.7
ED Consult	42	0	0	3	4.3	2	4.3
Cancer	252	2	5.1	4	4.8	8	9.9
Noncancer	272	5	6.2	5	6.7	11	12.9
Live Discharge	346	3	5.1	3	5.2	10	10.3
Death	178	6	8.3	4	5.8	12	14.1

LOS, length of stay; PC, palliative care; ICU, intensive care unit; ED, emergency department.

community hospital settings, clinical and operational program staff, single hospitals and large health systems, adult and pediatric programs, and programs coordinated by hospice agencies and hospitals (see Appendix A).

In considering the options, the panel weighed the ease of data collection/analysis against the utility of particular data features necessary to meet the needs of program staff and hospital administrators. A consensus emerged around 12 domains of operational data that can be derived easily from a short list of data points programs can gather prospectively (Tables 2 and 3). In developing the list of metrics, the panel agreed upon several operational definitions, including: What constitutes a palliative care consultation? What is a consult outlier in terms of length of stay? Should the day of admission be counted toward length-of-stay determination? These and other operational details are discussed in the Comments section following Table 3.

All data elements (except one, "Consults by Referring Service and/or Physician") can be used by programs wishing to compare their data with other hospitals. Sample data reports are provided in Tables 4 and 5.

The list of data points included in this report is not meant to be exhaustive, but represents the core minimum infor-

mation that the panel felt all hospital palliative care programs should be measuring. This report is not meant to discourage programs from capturing other data as requested by hospital administrators, or that the program director believes would be of use in helping to sustain/grow their program.

Collecting and analyzing program operational data is critical for all hospital palliative care programs if we are to work toward the time when all patients in the United States with serious and complex illness can reliably access quality palliative care in their communities. CAPC is committed to helping hospices and hospitals sustain and strengthen their palliative care programs through the kind of standardization represented by the process of routine, objective, and verifiable data analyses.

Address reprint request to:

David E. Weissman, M.D.
 Division of Neoplastic Diseases
 Medical College of Wisconsin
 9200 West Wisconsin Avenue
 Milwaukee, WI 53226

E-mail: dweissma@mcw.edu

APPENDIX A

Consensus Panel Members

John Barkley, M.D., FCCP; Hospice and Palliative Care Charlotte Region
 Janet Larson Braun, M.S.P.H., R.N.; Hospice of the Bluegrass
 Gretchen Brown, M.S.W.; Hospice of the Bluegrass
 Margaret L. Campbell, Ph.D., R.N., FAAN; Detroit Receiving Hospital and Wayne State University
 J. Brian Cassel, Ph.D.; Virginia Commonwealth University
 Lyn Ceronsky, M.S., G.N.P.-B.C.; Fairview Health System
 Todd R. Coté, M.D.; Hospice of the Bluegrass
 Sarah Friebert, M.D.; Akron Children's Hospital
 Amber Jones, M.Ed.; Palliative Care and Hospice Consultant
 Diane E. Meier, M.D.; Mount Sinai School of Medicine
 R. Sean Morrison, M.D.; Mount Sinai School of Medicine
 Sandra Muchka, R.N., M.S.N., A.C.H.P.N.; Medical College of Wisconsin
 Timothy Quill, M.D.; University of Rochester
 Michael Rabow, M.D.; University of California, San Francisco
 Christine Ritchie, M.D.; University of Alabama
 Phil Santa Emma, M.D.; Mt. Carmel Health System
 Thomas J. Smith, M.D.; Virginia Commonwealth University
 Lyn Spragens, M.B.A.; Spragens and Associates
 Martha L. Twaddle, M.D.; Midwest Palliative and Hospice CareCenter
 Charles F. von Gunten, M.D., Ph.D.; San Diego Hospice and the Institute for Palliative Medicine
 David E. Weissman, M.D.; Medical College of Wisconsin
