Published in final edited form as:

Intensive Care Med. 2016 December ; 42(12): 2104–2105. doi:10.1007/s00134-016-4489-y.

Variability in frequency of consultation and needs assessed by PC services across multiple specialty ICUs

Benjamin Stix, MD, Hannah Wunsch, MD, MSc, Caitlin Clancy, BA, Craig Blinderman, MD, MA, and May Hua, MD, MSc

Dear Editor

Across various specialty intensive care units (ICUs), 12–16% of patients meet established triggers for palliative care (PC) consultation [1]. However, a challenge to the expansion of specialized PC in these settings is that ICUs have unique “cultures,” which may affect how PC consultants are used [2]. We conducted a study to assess how use of PC consultation differs between types of ICUs by examining 1) frequency of consultation, 2) whether reasons for consultation differ across types of ICUs and 3) whether additional PC needs were addressed during consultation.

We performed a retrospective study of adult ICU patients admitted between August 2013–August 2015 at a single academic medical center with multiple specialty ICUs: medical (MICU), cardiac care (CCU), surgical (SICU), cardiothoracic (CTICU) and neurological (NICU). All units, with the exception of the CCU, have a closed staffing model with an intensivist-led primary team that directs care and is responsible for calling consults. During the study period, no protocols were used to standardize PC consultations. We examined rates and reasons for PC consultations, and compared differences between ICUs using χ^2 and Fisher’s exact test. To gain a more detailed understanding of the PC needs assessed, we conducted a chart review of 125 randomly selected patients who received consultation (25 from each ICU) and examined additional PC needs that were addressed (see Methods in the Electronic Supplementary Material (ESM)).

Of 13,344 ICU admissions, 689 (5.2%) had a PC consultation; there were notable differences for certain patient characteristics across ICUs (see Table 2 in the ESM). Rates of consultation differed significantly between ICUs, with MICU patients being most likely to receive a consultation (9.8%), while those in CTICU and NICU were least likely (2.0% and 1.9% respectively) ($p < 0.001$). The most common reasons for consultation across all ICUs were “Goals of care” (75.6% of all consults) and “Patient/family support” (66.6%). While consultation for certain PC needs was similar across ICUs (e.g. “Goals of care”), rates of consultation for other needs (e.g. “Symptom management”, “Pain management”) differed markedly (Table 1). The vast majority of patients had additional needs addressed throughout consultation (94.4% during initial consultation, 83.2% during follow-up); the percentage of patients with additional needs was not significantly different between ICUs (Figure 1 in the ESM). Notably, 61.6% of patients had recommendations for “Symptom management” and 49.6% for “Pain management” at any point during their hospitalization.

Within a single academic medical center, we found significant differences in rates of PC consultation across specialty ICUs. While some providers requested PC to address a broad range of needs, others appeared to use PC narrowly. These disparities may reflect differences in patient populations, ICU provider preferences, “ICU cultures,” comfort of intensivists providing PC, or subjectivity within the PC documentation [2–5]. Consultation resulted in a large range of additional needs being addressed, underscoring the potential burden of PC needs in critically ill patients. Further work should aim to understand reasons underlying differential patterns of use of PC services and whether this variation is associated with unmet PC needs.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

Acknowledgments

None.

References

1. Hua MS, Li G, Blinderman CD, Wunsch H. Estimates of the Need for Palliative Care Consultation across United States Intensive Care Units Using a Trigger-based Model. *Am J Respir Crit Care Med*. 2014; 189:428–436. [PubMed: 24261961]
2. Nelson JE, Curtis JR, Mulkerin C, Campbell M, Lustbader DR, Mosenthal AC, Puntillo KA, Ray DE, Bassett R, Boss RD, Brasel KJ, Frontera JA, Hays RM, Weissman DE. Choosing and Using Screening Criteria for Palliative Care Consultation in the ICU: A Report From the Improving Palliative Care in the ICU (IPAL-ICU) Advisory Board. *Crit Care Med*. 2013; 41:2318–2327. [PubMed: 23939349]
3. Rodriguez KL, Barnato AE, Arnold RM. Perceptions and utilization of palliative care services in acute care hospitals. *J Palliat Med*. 2007; 10:99–110. [PubMed: 17298258]
4. Creutzfeldt CJ, Engelberg RA, Healey L, Cheever CS, Becker KJ, Holloway RG, Curtis JR. Palliative Care Needs in the Neuro-ICU. *Crit Care Med*. 2015
5. Friedenberg AS, Levy MM, Ross S, Evans LE. Barriers to end-of-life care in the intensive care unit: perceptions vary by level of training, discipline, and institution. *J Palliat Med*. 2012; 15:404–411. [PubMed: 22468773]

Table 1

Characteristics of palliative care consultations, stratified by type of ICU

	All ICUs (n=689)	MICU (n=224)	SICU (n=100)	CTICU (n=70)	CCU (n=246)	NICU (n=49)	P value
Rate of consultation, % ^a	5.2	9.8	5.5	2.0	7.8	1.9	<0.001
Median time from ICU admission to consultation, days (IQR) ^b	4 (2–9)	3 (1–8)	4 (1–8)	6 (2–12)	5 (2–9)	4 (1–11)	0.004
Median time from hospital admission to consultation, days (IQR)	9 (4–17)	7.5 (3–16)	11 (6–21.5)	15 (8–30)	8 (4–15)	7 (2–14)	<0.001
Consult occurring on readmission, %	11.0	11.6	20.0	11.4	7.7	6.1	0.02
Consult occurring after transfer from another ICU, % ^c	6.4	4.5	6.0	28.6	2.4	4.1	<0.001
Median number of follow-up visits	2 (1–5)	2 (1–5)	2 (1–6)	3 (1–9)	2 (1–4)	3 (1–5)	0.01
Reason for Initial Consultation							
Symptom management ^d	33.7	38.8	34.0	15.7	37.0	18.4	<0.001
Pain management	16.1	21.9	21.0	7.1	11.4	16.3	0.003
Goals of care	75.6	75.0	78.0	70.0	77.2	73.5	0.72
Patient/family support	66.6	70.1	66.0	75.7	56.9	87.8	<0.001
Prognostication	13.9	17.0	19.0	11.4	9.4	16.3	0.06
Withdrawal/withholding of life-sustaining treatments	12.3	14.3	15.0	7.1	8.5	24.5	0.01
Discharge planning	6.5	9.8	7.0	2.9	4.5	6.1	0.14
Advance directives	10.2	10.7	10.0	2.9	13.8	0.0	0.005
Hospice referral	5.8	8.5	5.0	0.0	6.1	2.0	0.05

ICU, intensive care unit; MICU, medical intensive care unit; SICU, surgical intensive care unit; CTICU, cardiothoracic intensive care unit; CCU, cardiac care unit; NICU, neurological intensive care unit; IQR, interquartile range.

^aRate of consultation calculated as number of consultations for a specific reason/total number of consults for each ICU.

^bFor patients who had consultation after readmission or transfer, this is calculated as time from the readmission/transfer visit to consultation.

^cThe majority of patients receiving consultation after transfer to CTICU were patients with end-stage heart failure who were transferred from CCU for initiation of mechanical circulatory support.