Original Article

American Journal of Hospice & Palliative Medicine®
2019, Vol. 36(4) 321-325

DOI: 10.1177/1049909118811899
journals.sagepub.com/home/ajh
SAGE

Palliative Care for Inmates in the Hospital Setting

Stephanie L. Stephens, DO[1], J. Brian Cassel, PhD[1], Danielle Noreika, MD[1], and Egidio Del Fabbro MD[1]

Abstract

The US population of inmates continues to increase along with a rapid escalation in the number of elderly prisoners. Previous studies have demonstrated multiple barriers to providing palliative care for seriously ill inmates. The aim of this study was to assess the frequency of palliative care consultation and nature of consultation requests for inmates who died while hospitalized at a large tertiary care hospital. A retrospective chart review of all inmate decedents over a 10-year time period was conducted. The reason and timing of consultation was noted in addition to symptoms identified and interventions recommended by the palliative care team. Characteristics of patients who were transferred to the inpatient palliative care unit were also recorded. Forty-five percent of inmates were seen by palliative care prior to their death. Timing of consultation was close to the day of death. Inmates with cancer were significantly more likely to have a palliative care consultation prior to death. The most frequent intervention recommended was opiates for pain or dyspnea. Delirium was often missed by the primary team but was identified by the palliative care team. Nearly, 5000 prisoners die each year, mostly in community hospitals. These patients exhibit similar symptoms to free-living patients. Given that the inmate population has a higher rate of comorbid conditions, there is a need for more research to identify areas of need for incarcerated patients and where palliative care can best serve these individuals.

Keywords

palliative care, prisoners, cancer, end of life, delirium

Introduction

The United States had over 2.1 million persons incarcerated in 2015, with 870 persons per 100,000 under correctional jurisdiction.[1] From 1980 to 2010, the prison population grew at a rate of 11 times faster compared to the general population.[2] Forecasts suggest the population of elderly inmates older than 55 will grow to 400,000 by 2030, representing a growth of nearly 4,400% from 1980.[2]

The challenges in managing the rapid growth of elderly inmates are compounded by accelerated ageing phenomena where the physiological or functional age of inmates may be 10 years older than their chronological age.[3] Thus, the term elderly is often applied to prisoners starting at age 55. These individuals have multimorbidity and have high rates of associated symptom distress.[4] Inmates with cancer have disproportionate rates of lung and hepatic cancers compared to the general population and shorter survival rates compared to matched cohorts.[5] Cancer-related pain is particularly problematic, with inmates reporting high rates of uncontrolled pain in the prison setting.[6]

Although inmates have a constitutional right to standard health care, there exist a great many barriers to accessing appropriate palliative care.[7,8] Lack of trained palliative care providers, limited formularies, restrictions on as needed medications, and departmental policies regarding do-not-resuscitate orders are among the many reasons prisoners are unable to access palliative care services.[8]

There are 75 prison hospice facilities in the United States, largely in state facilities, with the Angola Prison Hospice in Louisiana, the most often described program in the literature.[9] Although there is an understanding of the need for palliative care outside of hospice care for inmates, the clinical model of palliative care is not well described in the literature. The objective of this study was to assess the frequency of palliative care consultation and the nature of consultation requests for inmates who died while being hospitalized. We hypothesized that consultation would be primarily in patients with cancer and shortly before death.

[1] Division of Hematology, Oncology and Palliative Care, Department of Internal Medicine, VCU School of Medicine, Richmond, VA, USA

Corresponding Author:
Stephanie L. Stephens, DO, Division of Hematology, Oncology and Palliative Care, Department of Internal Medicine, VCU School of Medicine, 1201 East Marshall Street, P.O. Box 980070, Richmond, VA 23298, USA.
Email: stephanie.stephens@vcuhealth.org

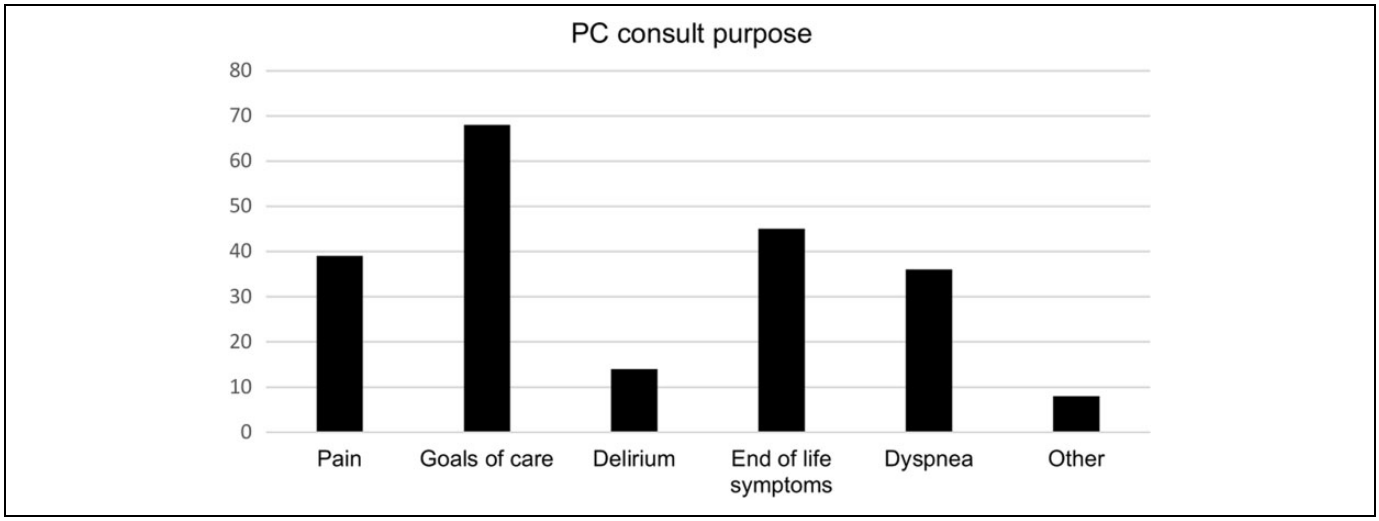

Figure 1. Reason for palliative care consultation.

Setting and Population

VCU Health has a contract with the Virginia Department of Corrections to provide care for over 50% inmates who require specialized medical care that prison infirmaries are unable to provide. The design and appearance of the specific ward for inmates is similar to other hospital wards and, except for inmates in the emergency department and the intensive care unit (ICU), there is no guard present in the rooms. The VCU Health also provides outpatient specialist care for state inmates.

Palliative care at VCU Health provides outpatient care along with inpatient consultation and the 12-bed palliative care unit that provides symptom management and end-of-life care for patients with high symptom burden or psychosocial distress. Inpatient consultation is available via telephone 24 hours a day; patients are seen 7 days per week, usually within 2 to 4 hours of request. The consult service consists of an attending physician, palliative medicine fellow, nurse practitioner, and chaplain; a prison-specific social worker is also available. Inmates on the palliative care service are typically cared for on the specialized prison ward.

Materials and Methods

This was a retrospective review of all inmate decedents at VCU Health from January 1, 2007, to December 31, 2016. Decedents were identified via payer source from the Cancer Informatics Core maintained by the VCU Massey Cancer Center that includes health-care utilization on all patients who died in the hospital or received palliative care, not limited to patients with cancer. Data including age, malignancy diagnoses, length of stay, palliative care consultation, and palliative care specialist coding were obtained from the data set.

For patients with a palliative care consultation, individual chart review was performed by a palliative trained physician. Information included reason for consultation, timing of consultation, interventions either recommended or performed by the palliative care team, and patients transferred to the palliative care service and whether the palliative care team identified additional symptoms requiring management beyond the reason for the consultation. Descriptive statistics were calculated using IBM Statistical Package for the Social Sciences (SPSS). This study was granted approval by the institutional review board for collection of protected health information on decedents.

Results

Two hundred ninety-nine inmates died while being hospitalized during the 10-year time frame, with 136 (45%) inmates having palliative care consultation prior to death. Two hundred ninety-two (97.7%) inmates were male and 7 (2.3%) were female. The inmates ranged in age from 22 to 87 years, with a median age of 56 years. Forty-seven percent of inmates were black and 49% were white. The mean length of stay was 9 days with a median of 5 days.

One hundred thirty-six (45.5%) inmates were seen by palliative care prior to their death. The median time from admission until consultation was 4 days. This includes patients admitted directly to the palliative care service from the emergency department or clinic. The median time from consultation until death was 3 days. This includes 18 patients who were seen by palliative care on the same day as death. Older patients were more likely to be seen by palliative care ($P < .026$). No significant difference was observed with ethnicity. The overall consultation rate for palliative care for all male decedents at VCU averaged 40.5% over the same time frame; when compared had a nonsignificant odds ratio of 1.22.

The primary reason for consultation was for goals-of-care or transitions-of-care discussions in 68 (50%), followed by end-of-life symptoms (33%) and pain (29%; Figure 1). Delirium was infrequently a reason for consultation (10%), but was more frequently identified by the palliative care team, with 37% of patients requiring interventions to address delirium. Although

Table 1. Interventions Offered by the Palliative Care Team.

	#	% of Patients Seen
Opioid management	112	82
Dyspnea management	65	48
EOL management	64	47
Pain management	61	45
Delirium management	51	37
Neuroleptics	38	28
Secretions	33	24
Opioid rotation or conversion	26	19
Code status discussion	22	16
Other	12	9
Bowel obstruction management	11	8
Nausea and vomiting management	6	4
Anxiety and depression management	6	4
Counseling	4	3
Discussion of artificial nutrition	2	1

Abbreviation: EOL, end-of-life.

Table 2. Malignancies of Affected Patients Seen by the Palliative Care Team.

	%
Hematologic	17
Head and neck	5
Lung	35
Hepatobiliary	16
Pancreatic	7
Genitourinary/prostate	5
Brain	1
Upper Gastrointestinal	3
Colorectal	4
Renal	1
Bone/soft tissue	1
Melanoma	1
Other	4

goals-of-care discussions were the leading reason for request, code status discussions were only noted for 22 (9%) of patients. Opioid management for pain and dyspnea was the most common medication offered for 112 (82%) patients, while antipsychotics were second (28%; Table 1).

Ninety-six patients were either admitted directly to or later transferred to the palliative care service, representing 70.5% of patients who had palliative care consultations. Thirty-one percent of patients died in the medical-respiratory ICU, whereas those who died outside the palliative care service or unit were on a variety of services, including neuroscience, coronary, cardiac surgery, surgical-trauma ICUs and general medicine services. Only 6 (2%) patients of patients died on the hematology–oncology service.

One hundred forty-one (47%) of decedents had a diagnosis of malignancy. The most common malignancies were lung cancer, representing 35% of malignancies, with hepatocellular carcinoma second (15%; Table 2). The consultation rate for inmates with cancer was 63.5%. Sixty-four (45%) patients with a malignancy diagnosis died on the palliative care service. When assessed as separate groups, 64% of patients with cancer received palliative care consultations, whereas only 29% of patients without cancer were seen by palliative care ($P < .000$).

Discussion

Palliative care consultation was requested for fewer than half of the inmates who died during the 10-year study period. However, the rate of consultation did demonstrate parity with non-inmate decedents at VCU. The majority of consultation requests were for goals-of-care discussion with patients and families. However, there was a low rate of documented code status discussions led by the palliative care team and code status was often addressed prior to palliative care involvement given the late nature of most consults. The consult request was possibly motivated by a number of reasons including desire for multidisciplinary support, to reinforce existing goals, or facilitate transition to the palliative care unit for end-of-life management. Timing of consultation was close to the date of death, closer than other studies in the general population that have examined timing of palliative care involvement. O'Mahony et al found that there was a median number of 5 days from palliative care consultation until discharge, whereas El Osta et al found a much longer rate of 42 days from initial consultation until death, but this included outpatient services in addition to inpatient.[10,11] The driving factors behind late consultation for inmates are unclear and are a point of further exploration.

The higher rate of consultation in inmates with cancer was likely related to 2 factors: the long-standing relationship of palliative care with oncology at our institution and more prognostic certainty with this disease diagnosis. Higher rates of consultation for oncology patients are demonstrated in the free-living population.[12,13] The types of cancer, primarily lung and liver, reflect previous data that show rates of these cancers are higher in inmates than the general population.[5]

The most common intervention was management of opioids, including initiation, rotation, and titration. Eighty-two percent of patients had opioids recommended for a variety of symptoms. This is unsurprising, given the palliative care specialists' level of expertise in opioid management. Similar data for inpatient palliative care consultations have been found at both a comprehensive cancer center and a tertiary care hospital.[10,12]

Delirium was rarely a reason for consultation; however, it was identified as requiring intervention in 37% of patients. Although delirium prevalence among all hospitalized patients is estimated to be about 20%, patients with advanced illness are at much higher risk.[13] At a comprehensive cancer center, 13% of palliative care consultations were for delirium; however, 33% of patients were noted to have delirium.[14] Similar results were demonstrated during a retrospective analysis of reasons for consultation of all patients, not just those with cancer, with 16% of requests were for delirium management but 56% of patients were found to have delirium.[12] These results highlight the role of palliative care providers as specialists in identifying and managing delirium, especially in patients with cancer, and

that seriously ill inmates have similar rates of delirium as the free-living population. Routine screening for delirium in high-risk patients would allow for earlier identification and intervention.

Finally, there are a number of barriers to the receipt of palliative care in this patient population.[8] Currently in Virginia, structured, consistent access to palliative and hospice care services in correctional settings is scarce. Given the lack of resources, our inpatient palliative care service may provide a foundation for a future partnership that expands access to palliative care for inmates in the hospital and in the correctional facility settings. Examining earlier access to palliative care was beyond the scope of this study, but the parity found for in-hospital consultations would likely not be seen given these barriers.

Our study has several limitations: one was access to documentation; the electronic medical record only contains dictated discharge summaries for patients through mid-2008. As a retrospective study, details of palliative care interventions were also dependent on the documentation in the medical record. A standardized assessment scale for pain and other symptoms was not always used, which could have incorrectly influenced the palliative team's recommendations and hence the data collected. Similarly, a standardized method of delirium assessment, such as the Confusion Assessment Method or Memorial Delirium Assessment Scale, was not consistently implemented which could skew the number of patients diagnosed with delirium. As this study was only looking at inmates who died while hospitalized, the data does not account for inmates who were seen by palliative care who then later died while in prison. This could be a point of future study to examine whether inpatient palliative care consultation is related to fewer in-hospital deaths for inmates.

Conclusion

Nearly 5000 prisoners die each year, with the majority of deaths taking place in community hospitals. Since these inmates have more comorbidities and health-care needs than their free-living counterparts, there is a growing need for palliative care services, particularly as the aging inmate population rapidly expands.[15] Although much of the literature has focused on hospice care for inmates, there are few studies addressing palliative care in the inpatient setting.[16] Our palliative care service was consulted very late in the illness trajectory but provided management typical for patients with cancer, including pain and symptom management and goals-of-care discussions. We also identified delirium frequently, although the condition was not often identified by the primary service. More research is required to identify areas of need for incarcerated patients and where palliative care can best serve these individuals.

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: Services in support of the research project were provided by the VCU Massey Cancer Center Informatics Core, supported, in part, with funding from NIH-NCI Cancer Center Support Grant P30 CA016059.

ORCID iD

Stephanie L. Stephens https://orcid.org/0000-0003-1703-5384

References

1. Kaeble D, Glaze L. *Correctional Populations in the United States, 2015*. 2016. Washington, DC: Bureau of Justice Statistics.
2. *At America's Expense: The Mass Incarceration of the Elderly*. 2012. New York, NY: American Civil Liberties Union.
3. Rikard RV, Rosenberg E. Aging inmates: a convergence of trends in the American criminal justice system. *J Correct Health Care*. 2007;13(3):150-162. doi:10.1177/1078345807303001
4. Bolano M, Ahalt C, Ritchie C, Stijacic-Cenzer I, Williams B. Detained and distressed: persistent distressing symptoms in a population of older jail inmates. *J Am Geriatr Soc*. 2016; 64(11):2349-2355. doi:10.1111/jgs.14310
5. Mathew P, Elting L, Cooksley C, Owen S, Lin J. Cancer in an incarcerated population. *Cancer*. 2005;104(10):2197-2204. doi:10.1002/cncr.21468
6. Lin JT, Mathew P. Cancer pain management in prisons: asurvey of primary care practitioners and inmates. *J Pain Symptom Manage*. 2005;29(5):466-473. doi:10.1016/j.jpainsymman.2004.08.015
7. Dubler NN. The collision of confinement and care: end-of-life care in prisons and jails. *J Law Med Ethics*. 1998;26(2): 149-156. doi:10.1111/j.1748-720X.1998.tb01670.x
8. Linder JF, Meyers FJ. Palliative care for prison inmates "Don't Let Me Die in Prison." *JAMA*. 2007;298(8):894-901.
9. Kirk TW, Mahon MM. National Hospice and Palliative Care Organization (NHPCO) position statement and commentary on the use of palliative sedation in imminently dying terminally Ill patients. *J Pain Symptom Manage*. 2010;39(5):914-923. doi:10.1016/j.jpainsymman.2010.01.009
10. O'Mahony S, Blank AE, Zallman L, Selwyn PA. The benefits of a hospital-based inpatient palliative care consultation service: preliminary outcome data. *J Palliat Med*. 2005;8(5):1033-1039. doi:10.1089/jpm.2005.8.1033
11. El Osta B, Palmer JL, Paraskevopoulos T, et al. Interval between first palliative care consult and death in patients diagnosed with advanced cancer at a comprehensive cancer center. *J Palliat Med*. 2008;11(1):51-57. doi:10.1089/jpm.2007.0103
12. Braiteh F, El Osta B, Palmer JL, Reddy SK, Bruera E. Characteristics, findings, and outcomes of palliative care inpatient consultations at a comprehensive cancer center. *J Palliat Med*. 2007; 10(4):948-955. doi:10.1089/jpm.2006.0257
13. Ryan DJ, O'Regan NA, Caoimh RÓ, et al. Delirium in an adult acute hospital population: predictors, prevalence and detection. *BMJ Open*. 2013;3(1):e001772. doi:10.1136/bmjopen-2012-001772
14. de la Cruz M De, Fan J, Yennu S, et al. The frequency of missed delirium in patients referred to palliative care in a comprehensive

cancer center. *Support Care Cancer*. 2015;23(8):2427-2433. doi: 10.1007/s00520-015-2610-3

15. Rothman A, McConville S, Hsia R, Metzger L, Ahalt C, Williams BA. Differences between incarcerated and non-incarcerated patients who die in community hospitals highlight the need for palliative care services for seriously ill prisoners in correctional facilities and in community hospitals: A cross-sectional study. *Palliative Medicine*. 2018;32(1):17-22. https://doi.org/10.1177/0269216317731547
16. Cloyes KG, Berry PH, Martz K, Supiano K. Characteristics of prison hospice patients: medical history, hospice care, and end-of-life symptom prevalence. *J Correct Health Care*. 2015;21(3): 298-308. doi:10.1177/1078345815588842