

2023 Hospice Quality Reporting Program Information Gathering Report



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^{*}The authors used iThenicate software to confirm this document represents an original work and, where applicable, has properly cited the work of others.

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Table of Acronyms

CAHPS®	Consumer Assessment of Healthcare Providers and Systems
CMS	Centers for Medicare & Medicaid Services
HIS	Hospital Item Set
HOPE	Hospice Outcomes and Patient Evaluation
HQRP	Hospice Quality Reporting Program
NHPCO	National Hospice and Palliative Care Organization

Background and Significance

Many Americans rely on hospice care for end-of-life support. In 2021, more than 1.7 million Medicare beneficiaries received hospice care, with Medicare hospice spending totaling \$23.1 billion (MedPAC, 2023). Hospice services are comprehensive and holistic services focused on comfort and palliative care at the end of life, which can include physician and nursing care, medical equipment and supplies, drugs to manage pain and symptoms, physical therapy, spiritual and grief counseling, among others. These services are critical to terminally ill patients. CMS continually strives to improve hospice quality and the experience of care for beneficiaries within the context of the Meaningful Measures Framework, which prioritizes high-impact quality measure areas that are meaningful to patients, their families and caregivers.

CMS anticipates expanding the Hospice Quality Reporting Program (HQRP) over the next several years to include additional meaningful quality measures that assess the quality of care provided to hospice patients. CMS contracted with Abt Associates, Inc. to support the HQRP. The HQRP currently includes a Hospice Item Set (HIS) quality measure, two claims-based quality measures, and Consumer Assessment of Healthcare Providers and Systems (CAHPS®) Hospice Survey measures. The Abt team is also developing and testing the Hospice Outcomes and Patient Evaluation (HOPE), a draft tool that, when finalized in rulemaking, will support assessment-based quality measures.

The Hospice Information Gathering Reports support these efforts by reviewing available resources to inform HOPE development and related quality measures. The <u>2019 Information Gathering Report</u> used stakeholder input, environmental scans, literature reviews, and focus groups to establish a candidate list of domains for inclusion in HOPE.

The <u>2020 Information Gathering Report</u> used similar methods to explore specific areas where additional information was needed to support HOPE and quality measure development. Specifically, the report addressed potential adaptation of the Integrated Palliative Outcome Scale for HOPE, the most clinically up-to-date signs and symptoms of imminent patient death and additional information on pain and dyspnea management to support related quality measures.

The 2021 Information Gathering Report narrowly focused on hospice-specific quality measurement and data collection research related to current HOPE activities. Topics included treatment of moderate to severe pain, patient preferences, spiritual and psychosocial assessment and care, medication management, and any recent quality measurement and reporting activities in the hospice setting. The 2022 Information Gathering Report addressed health equity in hospice care, access to and enrollment in hospice, receipt of hospice care, hospice inequities, and other recent literature related to quality measurement and health equity in the hospice setting.

This 2023 Information Gathering Report focuses on a single broad research question:

• What does the most recent literature say about quality measurement, reporting, and improvement activities in the hospice setting?

Methods

To address this year's information gathering topic, the Information Gathering team searched for and reviewed both peer-reviewed and grey literature. For the literature review, the team used MEDLINE/PubMed® database, supplemented with searches in Google Scholar, with pre-developed search terms (e.g., MeSH) specific to the topic. For grey literature, the team established a list of well-known resources and applied key words from our topics to find relevant information.

Throughout the process the Information Gathering team consulted key stakeholders (e.g., CMS HQRP team Abt's HQRP measurement development team) to clarify the purpose or intent of the research question and confirm expected sources of information, as needed. For more details on our methods refer to **Appendix I.** We present complete literature review tables in **Appendix II**.

Our search results are presented in Exhibit 1.

Exhibit 1: Literature Review Results Hospice Quality of Care			
Search Terms	("hospice") and ("quality")		
Search Date	July 10, 2023		
Total Peer-Reviewed Articles	278		
Total Google Scholar Results	N/A*		
Total Grey Literature Articles	2		
Title/Abstract Rejection	257		
Article Rejections	14		
Final Articles	16		

^{*}The Abt team searches Google Scholar only when MEDLINE and PubMed retrieve an insufficient number of search results (i.e., five or fewer). For additional information, please see Appendix I: Methods

Results

This report focuses on quality measurement, reporting, and improvement activities in the hospice setting to better inform the future federal HQRP measurement and reporting activities. The Information Gathering Team identified literature related to quality of care in the hospice setting published in the last two years. Because the search period overlapped with search periods from prior Information Gathering Reports, eight of the 14 articles identified through the current literature review were previously identified and included in prior reports. Our current results include literature described in prior reports only if it relates to the newer literature identified as part of this report. The literature review results described below reflect different components of hospice quality and may suggest areas of focus for quality measurement, quality reporting, and quality improvement.

Caregiver perceptions of symptom management may have room for improvement. A retrospective analysis of CAHPS Hospice Survey respondents whose family member had a cancer diagnosis found that two questions (whether the patient received help for constipation when needed and whether the patient received help for feelings of anxiety and or sadness when needed) had the lowest average ratings (71.0 and 60.6 out of 100, respectively). Two questions, whether the hospice treated the family member with respect and whether the patient received emotional support, had the highest average ratings (89.5 and 89.0 out of 100, respectively) (Parast et al., 2021).

Consumers may benefit from additional Care Compare¹ content. The American Academy of Hospice and Palliative Medicine recommends that CMS expand Care Compare to list current and prior hospice ownership, whether a hospice has been penalized for not participating in HQRP, and whether the hospice's medical director has board certification or credentials relevant to hospice (Friedman, 2023). These suggestions overlap with Office of Inspector General (OIG) recommendations for expanding Care Compare to include complaints and resulting deficiencies, survey reports from State agencies and accrediting organizations, average number and types of service provided, and frequency of physician and weekend visits (OIG, 2023). As discussed in the 2021 Hospice Information Gathering Report, one study compared themes in Yelp reviews of California hospice providers with themes captured by CMS Hospice Compare's caregiver survey items. The study assumed that Yelp's user-generated content reflected what families or caregivers consider useful to others considering a hospice provider. The Yelp reviews addressed a wider range of themes: whether staff was compassionate and caring, whether the patient or family was grateful to the hospice, the quality of patient care, medication management, provision of grief or bereavement counseling or support, comprehensiveness of services, agency management, staff professionalism, whether staff was knowledgeable or skilled, safety, and medical equipment and supplies. These additional themes may be valuable to consumers when choosing a hospice (Rahman et al., 2021).

Studies suggest home hospice offers a better care experience than hospice provided in other settings. When comparing CAHPS for Hospice survey results between hospice types, mean scores were significantly lower for hospice care provided in nursing homes and assisted living facilities than in-home and inpatient hospices for all eight questions (Parast et al., 2021). This is consistent with prior work presented in the 2021 Information Gathering Report. That report included a study based on CAHPS Hospice Survey data, which found that those who cared for hospice patients in a nursing home or assisted living facility reported worse experiences than those who cared for hospice patients at home (Quigley et al., 2020), and a second National Health and Aging Trends Survey study confirming those findings, with patients receiving hospice in their home having the highest overall scores (Xu et al., 2020).

¹ Care Compare is a CMS website that allows consumers to compare health care providers and facilities.

² Hospice Care is known as Care Compare as of December 2020. Results may not be replicable in Care Compare.

Hospices in states with Certificate of Need policies and non-profit hospitals may have better quality outcomes. A recent study of Medicare-certified hospices used HIS data to determine whether quality outcomes differed for hospices in states that have Certificate of Need³ laws compared to hospices in states that do not. Certificate of Need regulations allow the state to approve or deny new health care facilities based on the needs of the community⁴. Adjusted regression results demonstrated significantly higher ratings for pain assessment, dyspnea treatment, patient beliefs and values being addressed, and a patient processes of care composite measure in states with Certificate of Need policies relative to states without such policies. The authors additionally found that, across all states, for-profit hospices performed significantly worse than their non-profit counterparts with respect to treatment preferences being addressed, pain screening, and opioid bowel treatment. However, for-profit hospices demonstrated better dyspnea treatment scores than non-profit hospices (Gaines and Cagle, 2023).

Patients with dementia may have worse hospice outcomes. As reported in the 2022 Information Gathering Report, patients with dementia had longer hospice lengths of stay, and were more likely to disenroll from hospice, but caregiver experience ratings did not differ between patients with dementia and those without (Aldridge et al., 2022; Harrison et al., 2022). A more recent large study focused specifically on the impacts of race on hospice quality for people with dementia. Patients with dementia receiving care at hospices with the lowest CAHPS scores for overall hospice rating were more likely to disenroll regardless of race. However, within a hospice, whether the hospice was rated as high- or low-quality, patients of minoritized racial or ethnic groups (non-Hispanic Black, Hispanic, or Asian and Pacific Islander) with dementia were 1.18 to 1.45 times more likely to disenroll than their White counterparts (Hunt et al., 2023). This suggests racial/ethnic inequities in the quality of hospice care among patients with dementia.

HQRP measures may help support program integrity efforts. The American Academy of Hospice and Palliative Medicine recommended CMS focus program integrity efforts on the lowest performing hospices, using criteria such as: high live discharge rate, long average length of stay, unfavorable hospice care index, and poor performance on HQRP measures (AAHPM, 2023).

Using tools to facilitate medication deprescribing and use of telehealth may improve hospice quality. A recent Hospice and Palliative Care Nurses Association Clinical Practice Forum presentation focused on a hospice's efforts to reduce inappropriate medications at the end of life. The hospice used the National Hospice and Palliative Care Organization's Deprescribing Toolkit and Deprescribing.com algorithm to implement this change. In the first week of the intervention, potentially inappropriate medications decreased from baseline by 28%, and by 48% from baseline at three weeks (Lyson and DeClerk, 2021). A telehealth study cited in the 2022 Information Gathering Report reported telehealth enhanced usual care activities such as addressing patient and family concerns, though telehealth may be at higher risk for abuse in the hospice setting than in other settings (Hughes et al., 2022).

Few novel quality measures or treatment approaches are discussed in recent literature. No literature described specific quality measures other than Lam and colleagues' Healthy Days at Home measure, which is described in the 2022 Information Gathering Report (Lam et al., 2021). The 2021 Information Gathering Report cited two small studies suggesting physical activity can improve symptoms, though neither suggested how such interventions may be systematically implemented or assessed (Ćwirlej-Sozańska et al., 2020; Burke et al., 2020)

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³ Certificate of Need laws are state-based regulations that requires state approval before a new health care facility can be built.

⁴ See https://www.ncsl.org/health/certificate-of-need-state-laws for more details.

Conclusion

Recent literature suggests that hospice quality still has room for improvement, particularly in areas such as symptom management, medication deprescribing, and hospice patients with dementia. Available toolkits and telehealth may provide support to hospices looking to improve in these areas. HQRP also has opportunities to support expanding Care Compare to include information more valuable to consumers, and to support program integrity efforts. However, few studies suggest novel quality measures or treatment approaches—these studies include the Healthy Days at Home measure study and studies associating physical activity with improved symptoms.

Hospice characteristics are correlated with their quality outcomes. Evidence suggests that patients receiving care in the home have a better care experience than patients that received hospice in other settings. Hospice services provided by non-profit hospices, or hospices in states where hospice growth is regulated, were associated with better quality outcomes.

Appendix I: Methods

Literature Reviews

The Information Gathering Team used a stepwise process to identify information relevant to our research questions. Those steps are outlined here.

Determine search terms. We determined a specific set of search terms to both identify the hospice setting and to identify work relevant to each specific research question using the following steps:

- Determine MeSH terms using MeSH on Demand,
- Determine additional non-MeSH terms,
- Discuss identified search terms as a group and solicit expert review where needed,
- Finalize search terms.

Determine search parameters and identify articles. We conducted our literature searches in PubMed, which include MEDLINE indexed journals, journal and manuscripts deposited in PubMed Central, and the National Center for Biotechnology Information Bookshelf. We used the following steps to conduct the search and ensure the most relevant results.

- 1. Determine Boolean phrase using predetermined search terms (i.e., how terms will connect using and/or)
- 2. Set results filters to adult, human, and English language results in the past 5 years.
- 3. Use the Advanced Search option to search in the Title and Abstract fields.

If this yielded fewer than ten results, we updated the parameters to search in all Text Word fields. If this still yielded fewer than ten results, we searched in All Fields and reviewed the search terms with subject matter experts to see if the terms should be revised. If a search yielded greater than 500 results, we revised our search terms to narrow the results and consulted with a subject matter expert. We exported all results to an EndNote library.

Review identified articles. To facilitate our review, we designated folders within each EndNote Library for relevant articles, somewhat relevant articles, and insufficiently relevant articles that we rejected from our results. We further sorted rejected articles based on how detailed our review of each article was. Some were rejected based on the relevance of their title or abstract. Remaining articles were either kept or rejected based on a review of the full text. Potential reasons for rejection include incorrect setting, incorrect population, or lack of specificity to target questions. If fewer than five articles remained after the review process, we consulted with a subject matter expert and conducted a supplementary Google Scholar search.

Supplement results using Google Scholar. For searches with fewer than five relevant articles remaining after review, we conducted a search in Google Scholar using the same search terms and review criteria outlined for our PubMed searches.

Identify and review grey literature. The Information Gathering lead identified relevant grey literature by using the hospice search terms identified above in the <u>Harvard Kennedy School Think Tank</u> site as well as the following individual sites with a focus on healthcare or hospice:

- Center to Advance Palliative Care
- Institute for Healthcare Improvement

- Joint Commission
- Robert Wood Johnson Foundation
- The Commonwealth Fund
- Kaiser Family Foundation
- National Academy of Medicine
- National Coalition for Hospice and Palliative Care (NCHPC) (trade group membership)
- Hospice and Palliative Care Nurses Association
- American Academy of Hospice and Palliative Care
- National Hospice and Palliative Care Organization (NHPCO) (membership required)
- Visiting Nurse Associations of America

The Information Gathering lead reviewed the search results within each site and compiled links relevant to hospice or our topics. The larger Information Gathering team searched these compiled links using the previously determined search terms for each of their research questions. For the Center to Advance Palliative Care site, staff searched the overall site with their research question specific search terms.

Review additional supplemental information. We compiled information provided by the technical expert panel, subject matter experts, and other stakeholders over the course of the year. Information Gathering staff reviewed these materials and incorporated findings relevant into their research questions.

Appendix II: Literature Review Tables

Citation	Setting	Population	Design	Main Findings
Aldridge, M. D., Hunt, L., Husain, M., Li, L., & Kelley, A. (2022). Impact of Comorbid Dementia on Patterns of Hospice Use. <i>J</i> Palliat Med, 25(3), 396-404. doi:10.1089/jpm.2021.0055	US, hospice, unspecified	3,123 Medicare beneficiaries who died in hospice	Pooled cross-section analysis of Health and Retirement Study data linked with Medicare claims	Approximately 45% of hospice patients have primary or co-morbid dementia. Co-morbid dementia was associated with hospice stays longer than 6 months (AOR 1.52; 95% CI 1.11 – 2.09) and hospice disenrollment after 6 months (AOR 2.55; 95% CI 1.43 – 4.55)
Burke, S., Utley, A., Belchamber, C., & McDowall, L. (2020, Sep). Physical Activity in Hospice Care: A Social Ecological Perspective to Inform Policy and Practice. Research quarterly for exercise and sport, 91(3), 500-513. https://doi.org/10.1080/0270 1367.2019.1687808	UK, Hospice facility	27 patients and 5 healthcare providers from multiple hospices in the UK	Qualitative analysis using a thematic framework approach that explored factors perceived as important for influencing physical activity participation in hospice care, using a social ecological framework. Used semi-structured interviews and focus groups.	Physical activity (PA) was perceived by patients and health providers as a therapeutic strategy to prevent future health problems and manage existing physical, functional, and psychological conditions. Risk of injury, fear of falls, and concerns related to worsening their existing condition were identified as factors that may potentially deter participation. PA may make patients more aware of their declining condition through negative comparisons of present and past. Group-based PA may foster perceptions of social acceptance and may help counter feelings of alienation.

Citation	Setting	Population	Design	Main Findings
Ćwirlej-Sozańska, A., Wójcicka, A., Kluska, E., Stachoń, A., & Żmuda, A. (2020, Jul 9). Assessment of the effects of a multicomponent, individualized physiotherapy program in patients receiving hospice services in the home. <i>BMC Palliative Care, 19</i> (1), 101. https://doi.org/10.1186/s129 04-020-00600-6	Poland, home hospice	60 home hospice patients in Poland recruited from two participating rehabilitation centers. Patients with better prognoses on survival time and who were not terminal were referred to the physiotherapy program.	A pre- post-test design of one group of an intervention containing a multi-component, individualized physiotherapy program on patients referred for home hospice from March to June 2019.	Physiotherapeutic intervention had a significant impact on improving the performance of activities of daily living as well as the emotional state and quality of life of patients. The average functional level of activities of daily living was 2.9/6 pre and significantly improved to 4.0/6 post. Statistically significant improvements were challenges with bathing and showering (73.3% to 53.3%), functional mobility (61.7% to 30.0%), dressing (55% to 30%), and toilet hygiene (55% - 36.7%), moving further than a walking distance (96.7% to 85%), preparing meals (91.6% to 83.3%), taking prescribed medication (80% to 70%), and managing money (66.7% to 56.7%) (all p < 0.05) Patients exhibited significant improvements in assessments of mobility and balance (Tinetti POMA Scale) (8.2 to 12.3), driven by improvements in gait and balance; Geriatric Depression Scale (16.7 TO 15.7), and World Health Organization Quality of Life scale (46.4 – 52.6) (All p < 0.001 except Geriatric Depression Scale (0.012)

Citation	Setting	Population	Design	Main Findings
Gaines, Arlen G., and John G. Cagle. "Associations Between Certificate of Need Policies and Hospice Quality Outcomes." American Journal of Hospice and Palliative Medicine®, May 2023, p. 104990912311806. DOI.org (Crossref), https://doi.org/10.1177/1049 9091231180613.	US, Medicare-certified hospice	4870 US hospices	Study used multiple regression analysis to predict HIS outcomes based on certificate of need (CON) status	 When controlled for ownership and agency size, hospices in a state with a CON had several higher hospice item set scores than hospices in a state without a CON for all eight regression measures: Treatment preferences (β =01, P = .775) Beliefs/values addressed (β = .05, P = .009) Pain screening (= .02, P = .262) Pain Assessment (β = .05, P = .009) Dyspnea Screening β = .03, P = .052) Dyspnea Treatment (β = .08, P < .001) Opioid Bowel Treatment (β = .02, P = .338) Composite Measures (=.09, P < .001) Across CON and non-CON states, for-profit hospices performed worse on 3 HIS measures: Treatment preferences (β =04, P = .011) Beliefs/values addressed (β =02, P = .206) Pain screening (β = .07, P < 001) Pain Assessment (β = .01, P = .723)) Dyspnea Screening (β =02, P = .359) Dyspnea Treatment (= .05, P = .007) Opioid Bowel Treatment (β =05, P = .024) Composite Measures (β =03, P = .100)

Citation	Setting	Population	Design	Main Findings
Harrison, K. L., Cenzer, I., Ankuda, C. K., Hunt, L. J., & Aldridge, M. D. (2022). Hospice Improves Care Quality For Older Adults With Dementia In Their Last Month Of Life. <i>Health Aff</i> (<i>Millwood</i>), 41(6), 821-830. doi:10.1377/hlthaff.2021.019 85	US, hospice	2,059 National Health and Aging Trends (NHATS) participants aged 70 or older	NHATS study and Medicare claims to determine the impact of hospice enrollment on caregivers on proxy perceptions of care quality in the last month of life using predicted probability.	Proxies of people with dementia enrolled in hospice compared to proxies of patients with dementia not enrolled in hospice were more likely to report the care to be excellent (predicted probability 52% v 41.4%; p=0.012), more often reported having anxiety and sadness managed (67% v 46%), and less often reported changes in care settings in the last 3 days of life (10% v 25%). There were no differences between proxy ratings for hospice-enrolled patients with and without dementia.

Citation	Setting	Population	Design	Main Findings
2 11 1	Setting US, Hospice unspecified	Population 595 caregivers of seriously ill patients and 25 hospice leaders	Cross-sectional survey (caregivers) and interviews (hospice leaders)	Those with good internet, better access to video, and under 65 were more satisfied with their telehealth. The general outlook from hospice leaders is that telehealth is positive and hopeful. Patients mentioned that having training or instructions helped, as did having a family member present and customer service available. There is still confusion over telehealth policies and concern about abuse—for example, a hospice doing telephone calls instead of true audio-visual telehealth visits, or perhaps family drug diversion becoming more prevalent if caregivers are given more control over medication. Telehealth was reported to have enhanced usual care for activities such as addressing patient/family concerns, explaining lab results, and basic diagnostic activities. Interviewees also reported positive experiences with bereavement support, enhancing connections with out-of-town family members. Thoughts on virtual social workers or spiritual counselor services was more mixed, with some noting they could reach more patients and fewer people would need to visit the patient's home, but other felt these areas are difficult to do well within an in-person connection.

Citation	Setting	Population	Design	Main Findings
Hunt, Lauren J., et al. "Hospice Quality, Race, and Disenrollment in Hospice Enrollees with Dementia." Journal of Palliative Medicine, Apr. 2023, p. jpm.2023.0011. DOI.org (Crossref), https://doi.org/10.1089/jpm.2023.0011.	US, hospice	673,102 people 65+ with a principal diagnosis of dementia who are enrolled in hospice from July 2012 – December 2017	Retrospective cohort study using data from Medicare, Hospice Public Use File, and CAHPS data. Analyzed likelihood of hospice disenrollment based on hospice quality scores and race/ethnicity.	Hospices in the lowest quartile CAHPS rankings were more likely to have their patients disenroll than those in the highest quartile regardless of race (16.5% disenrollment for White patients with dementia rate (95% [CI] 15.9–17.2) and to 32.3% for Black patients with dementia (95% CI 30.8–33.9) Adjusted odds ratios reflect non-White patients being more likely to disenroll across all hospices than their White counterparts. Black AOR for highest rated quartile and lowest rated quartile, respectively: 1.23 (1.14, 1.33); 1.32 (1.27, 1.37) Hispanic AOR for highest rated quartile and lowest rated quartile, respectively: 1.18 (1.02, 1.34); 1.24 (1.19, 1.30) Asian American/Pacific Islander AOR for highest rated quartile and lowest rated quartile, respectively: 1.24 (0.95, 1.52); 1.43 (1.32, 1.54)

Citation	Setting	Population	Design	Main Findings
Lam, M. B., Riley, K. E., Zheng, J., Orav, E. J., Jha, A. K., & Burke, L. G. (2021). Healthy days at home: A population-based quality measure for cancer patients at the end of life. <i>Cancer</i> , 127(22), 4249-4257. doi:10.1002/cncr.33817	US, multiple	284,751 Medicare patients with who died of cancer	Calculation and analysis of a novel population-based measure called Health Days at Home	The measure calculates Healthy Days at Home (HDAH) in the last 180 days before death. It subtracts days spent in inpatient or outpatient emergency departments (including observations stays), skilled nursing facilities, inpatient psychiatry, inpatient rehabilitation, long-term hospitals, and inpatient hospice. Days on home hospice and home health were considered HDAH. Time spent in inpatient and at skilled nursing facilities resulted in the most substantial HDAH reductions. Males had fewer HDAHs that females (153 v 156; p< 0.001), Medicaid patients had fewer HDAH than non-Medicaid (152 v 155; p< 0.001).
Parast, Layla, et al. "Hospice Care Experiences Among Cancer Patients and Their Caregivers." <i>Journal of General Internal Medicine</i> , vol. 36, no. 4, Apr. 2021, pp. 961–69. <i>DOI.org (Crossref)</i> , https://doi.org/10.1007/s116 06-020-06490-x.	US, all Medicare-certified hospice	217,596 caregivers who responded to the CAHPS survey. Family member had cancer and died in 2017 or 2018 in a Medicare- certified hospice	Retrospective analysis of CAHPS survey responses to determine the experiences of decedents/caregivers as it relates to caring for a family member with cancer in hospice.	CAHPS responses showed room for improvement on several quality measures. Caregivers reported that patients needed additional help with feelings of anxiety or sadness as well as pain. The analysis also found that hospice care scores are notably poorer in nursing home and assisted living facilities.

Citation	Setting	Population	Design	Main Findings
Quigley, D. D., Parast, L., Haas, A., Elliott, M. N., Teno, J. M., & Anhang Price, R. (2020, Jun). Differences in Caregiver Reports of the Quality of Hospice Care Across Settings. <i>Journal of the American Geriatrics</i> Society, 68(6), 1218-1225. https://doi.org/10.1111/jgs.16 361	2,636 US hospices	311,365 primary caregivers of patients who died in hospice.	Multilinear regression analysis of 2016 CAHPS Hospice Survey data to examine differences in scores by setting (home, nursing home, hospital, freestanding hospice inpatient unit, and assisted living facility)	Caregivers of decedents who received hospice in a nursing home reported significantly worse experiences than caregivers of those in the home for all measures, and assisted living facility scores were also significantly lower than home for all measures. These differences were particularly large for hospice team communication and getting help for symptoms. (p < .001)

T., & Enguidanos, S. (2021, Feb). What Consumers Say About Hospices in Online Statewide Health Planning and Development that were not closed and had more than 3 Yelp reviews analyzed using a grounded theory approach. In Hospice Compare's care-giver survey analyzed using a grounded theory approach.	Singleton, M., Zhu, Y., Kaur, T., & Enguidanos, S. (2021, Feb). What Consumers Say About Hospices in Online Reviews. <i>Journal of Palliative Medicine</i> , 24(2), 240-247. https://doi.org/10.1089/jpm.2	California nospice	from the California Office of Statewide Health Planning and Development that were not closed and had more than 3 Yelp reviews	reviews on purposive sample of hospices, analyzed using a grounded	between the themes captured in Yelp and in Hospice Compare's care-giver survey items. Yelp reviews addressed a wider range of themes than Hospice Compare with "compassionate, caring staff" being the
Medical supplies and equipment Medical equipment and supplies (104) *Denotes categories that overlap with Hospice Compare					Categories and themes: Patient caregiver relationship Compassionate and caring staff (299) Patient and family grateful to hospice (289) Communication* (151) Respectfulness*(51) Clinical Care Quality of patient care (136) Medication Management (125) Pain and symptom management* (10) Provision of grief of bereavement counseling or support (79) Agency competency Timeliness or responsiveness of staff member*(256) Comprehensiveness of services (63) Agency management (43) Staff professionalism (124) Knowledgeable, skilled staff (97) Safety (8) Medical supplies and equipment Medical equipment and supplies (104)

Citation	Setting	Population	Design	Main Findings
				Hospice Compare survey items that did not appear in Yelp: family training and provision of emotional and spiritual support.
Xu, S., Liu, M., Shin, O., Parker, V., & Hernandez, R. (2020, Sep). Differences of Quality in End-of-Life Care across Settings: Results from the U.S. National Health and Aging Trends Study of Medicare Beneficiaries. <i>Journal of Palliative Medicine</i> , 23(9), 1198-1203. https://doi.org/10.1089/jpm.2 019.0297	US, Hospice in multiple settings	1,336 proxies of Medicare beneficiaries 65 or older who died between 2013 and 2016.	Compared proxies' overall ratings for 13 indicators across five major domains of end-of-life care by place of residence in the last of decedent's life. Data from the National Health and Aging Trends study, a US based cohort study that collects survey data. Last month of life interviews were used.	Hospice recipients in private residences and residential care settings were more likely to experience pain than patients living in private residences without hospice (OR = 2.59; 1.15-3.71 and 1.73; 1:00 – 3:00) Patients receiving hospice in private residence or residential care were both more likely to have discussed religion that patients in a private residence not receiving hospice (0.34; 0.22-0.53 and 0.33; 0.18-0.58) Proxies of participants in private residences with hospice care reported the highest overall rating (beta = 0.20; 0.01-0.39) Hospice residents in private residences were 65% more likely to be treated with respect compared to those in residential care settings.

Citation	Setting	Population	Design	Main Findings
Friedman, T. C. (2023). Letter to Earl Blumenauer about recommendations to improve hospice program integrity [Correspondence]. American Academy of Hospice and Palliative Medicine. https://aahpm.org/uploads/a dvocacy/AAHPM_Recomme ndations_to_U.SRepBlu menauer - Hospice_Program_Integrity	Medicare hospice benefit US	Hospice recipients and family/caregivers	Rule comments	American Academy of Hospice and Palliative Medicine's recommendations related to hospice quality of care are: • Focus on quality indicators that impact patient care rather than technical errors (e.g., completing forms) – Regulatory tasks such as excessive paperwork divert time and resources from patient care and resulting technical denials do not improve patient/family care. • Target non-operations and low-performing hospices and avoid broad instruments that burden high-performing hospices – poor HQRP measure performance, in addition to high live discharge rate, long average length of stay, unfavorable HCI, and condition-level deficiencies can detect true quality and integrity concerns and should be used to identify low-performing programs. • Add certain data to Care Compare, including whether a hospice has received financial penalties for non-participation in HQRP

Citation	Setting	Population	Design	Main Findings
Lyson, L. A., DeClerk, L. (2021, Aug). Deprescribing in hospice: A quality improvement project [Poster Presentation]. HPNA Clinical Practice Forum 2021, virtual. https://hpna.digitellinc.com/sessions/92/view	Hospice care Oregon	Hospice patients	Pilot study	Polypharmacy is common in hospices, with approximately 1/3 of older adults taking five or more regular medications. However, many patients are willing to stop medications as recommended by their provider and decreasing potential inappropriate medications (PIMs) improves patient quality of life. Deprescribing is a relatively new concept, with the authors' literature review finding no studies in hospice patients. NHPCO recommends deprescribing to decrease pill burden, avoid drug side effects, and eliminate medications with limited benefit. Following a process that included completing an admission medication list, reviewing the list for PIMs, following NHPCO's deprescribing toolkit, and making recommendations to patients, PIMs decreased among 61 patients over three weeks. At admission, 59% of patients were on one or more PIMs. PIMs reduced from 71 at admission by 23% (n=54) at week 1, 28% (n=51) at week 2, and 40% (n=42) at week 3.

Appendix III: References

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