Effect of the Medicare Face-to-Face Visit Requirement on Hospice Utilization

Joan Harrold, MD, MPH,¹ Pam Harris, MD,² Dena Green, MD,³
Teresa Craig, MBA,⁴ and David J. Casarett, MD, MA⁵

Abstract

Background: Although many patients enter hospice close to death, some enroll for more than six months. In 2011 the U.S. Centers for Medicare and Medicaid Services (CMS) required that these long-stay patients receive a face-to-face visit by a physician or nurse practitioner to ensure that they continue to meet eligibility criteria.

Objectives: This study proposed to determine whether the face-to-face visit requirement increased the rate at which patients were decertified from hospice.

Design: The study was a retrospective cohort study in six U.S. hospices. Decertification from hospice within 10 months of enrollment was measured.

Results: Of 23,638 patients, 11,788 (49.9%) would have been affected by the face-to-face requirement. In bivariate analysis, there was a significant decrease in the decertification rate after the requirement was implemented—371/11,788 (3.2%) versus 578/11,850 (4.9%); odds ratio (OR): 0.63; 95% CI 0.55–0.72; $p < 0.001$. In a multivariable logistic regression model adjusting for changes in patient characteristics and clustered by hospice, there was still a reduction in decertifications—3.4% versus 5.2%; OR 0.67; 95% CI 0.47–0.97; $p = 0.034$. Although the impact of the face-to-face requirement varied among hospices, all hospices had a decrease in decertification rates (absolute adjusted reduction between 1.4% and 3.6%).

Conclusions: The face-to-face requirement may decrease hospice discharges, contrary to its intention.

Introduction

MORE THAN 1.5 MILLION patients receive hospice care every year.¹ These patients are typically referred to hospice very late in the course of illness, and the median length of stay in hospice is only 22 days. Moreover, one third of patients enroll in hospice in the last week of life, and 1 in 10 enrolls in hospice in the last 24 hours of life.¹

However, a significant minority of patients receives hospice care for more than six months. In 2010, for instance, 11.8% of hospice patients were alive six months after enrollment. These long stays may be more frequent among for-profit hospices.²

In an effort to ensure that long-stay patients continue to meet eligibility requirements, in 2011 the Centers for Medicare and Medicaid Services (CMS) required that they receive a face-to-face visit by a physician or nurse practitioner beginning April 1.³

These visits must be completed before the start of the third hospice benefit period (usually at approximately 180 days), and every 60 days thereafter. The goals of these visits were to ensure that physicians and nurse practitioners continue to have regular contact with long-stay patients, and that patients continue to meet criteria for Medicare coverage of hospice services.³

However, it is not known what effect this requirement has had on hospice discharges. It is important to better understand this requirement's impact, because these visits have created a substantial staffing burden for hospice programs. Moreover, these visits also impose a financial burden, because hospice programs are not compensated separately by Medicare unless unmet needs for medical treatment (e.g., symptom management) are identified. Therefore, the goal of this study was to examine the impact of the face-to-face requirement on rates of hospice discharge.

¹Hospice of Lancaster County, Lancaster, Pennsylvania.

²Kansas City Hospice and Palliative Care, Kansas City, Missouri and Kansas.

³Agrace HospiceCare, Madison, Wisconsin.

⁴Suncoast Solutions, Clearwater, Florida.

⁵University of Pennsylvania Perelman School of Medicine, Philadelphia, Pennsylvania.

Accepted September 20, 2012.

Methods

Data collection

This study included patients from six hospices that are pilot participants in the CHOICE network (Coalition of Hospices Organized to Investigate Comparative Effectiveness) (www.choicehospices.org). Hospices are located in Clearwater, Florida (Suncoast Hospice); Las Cruces, New Mexico (Mesilla Valley Hospice); Marin, California (Hospice by the Bay), Lancaster, Pennsylvania (Hospice of Lancaster County); Madison, Wisconsin (Agrace HospiceCare); and Kansas City, Kansas and Missouri (Kansas City Hospice and Palliative Care). These hospices care for between 350 and 2700 patients/day in urban, suburban, and rural settings, and all are not-for-profit. All use Suncoast Solutions Electronic Health Record (EHR) systems.

We sampled patients who were admitted over a 20-month period between December 1, 2009 and July 31, 2011. We extracted data from hospices' EHRs and stripped files of direct identifiers in order to create HIPAA-compliant limited datasets. These limited datasets were then transferred as encrypted files to the University of Pennsylvania for analysis.

We divided the sample into two cohorts of approximately equal size, corresponding to whether a patient would have been affected by the face-to-face visit requirement that was implemented in April 2011 if they lived long enough. A certification of the patient's eligibility is required before the start of each hospice benefit period. Patients receive two consecutive benefit periods of 90 days each, followed by an unlimited number of 60-day periods. The face-to-face requirement takes effect at the start of the third benefit period (generally on the 181st day). Therefore, we restricted the sample to patients for whom there were at least 10 months of follow-up data (180 days until the first visit, 60 days until the second, and another 60 days until the third). In the prerequisite cohort we included patients admitted between December 1, 2009 and September 30, 2010. In the postrequirement group we included patients who were admitted between October 1, 2010 (six months before the requirement went into effect) and July 31, 2011.

In assigning patients to pre- and postrequirement cohorts we also considered the benefit period in which they entered hospice. This is determined by how much hospice care a patient has previously received, because the face-to-face rule applies to all patients entering the third hospice benefit period, regardless of when or where that patient has received hospice care in the past. For instance, if a patient receives one day of hospice care, is then discharged (e.g., at the beginning of the first benefit period) and then is admitted to any hospice one day later, the patient would now be in the second benefit period. Therefore, he or she would require a face-to-face visit after a total of only 91 days of hospice care, and before entering the third benefit period.

In order to account for possible differences in patient characteristics before and after the face-to-face requirement, we extracted basic demographic variables (age, gender, race, ethnicity) and admitting diagnosis. We coded each patient's site of care at the time of enrollment (home, long-term care facility, hospice inpatient unit); and we extracted clinical data elements likely to be markers of illness severity (e.g., use of oxygen or a Foley catheter).

As a measure of overall illness severity and prognosis, we extracted each patient's Palliative Performance Scale (PPS) score at the time of hospice enrollment. The PPS is an 11-point scale of functional and cognitive status (scored from 0 to 100, in 10-point increments), in which a higher score reflects better function.⁴⁻⁷ The PPS assesses five domains: (1) ambulation, (2) activity, (3) self-care, (4) intake, and (5) level of consciousness. Scoring proceeds in this order, so that the first categories of ambulation and activity are given the greatest weights. The PPS score is a strong predictor of prognosis in hospice and palliative care populations.^{5,7-10}

Analysis

First, we analyzed differences in the proportions of patients who were discharged from hospice because they no longer met eligibility criteria during each 10-month period. For this and all subsequent analysis we used logistic regression models with robust standard errors to account for clustering within hospice. Next we compared patient characteristics in the two cohorts. All characteristics that reached borderline significance in univariate analysis were included in a multivariable model to calculate adjusted pre- and postrequirement decertification rates.

We examined the subset of patients for whom a recertification decision was made at the start of the third benefit period, comparing decertification rates at this point before and after the face-to-face requirement. To identify secular trends that may have been responsible for changes in decertification rates over time, we examined the change in decertification rates before and after the face-to-face requirement went into effect. Finally, we conducted an exploratory analysis of the impact of the face-to-face requirement at each of the six hospices in the sample.

We estimated that a total sample of at least 20,000 patients, divided approximately evenly into two cohorts, would provide adequate power ($1-\beta > 0.80$) to detect a 0.75% change in decertification rates ($\alpha = 0.05$, two-tailed). Institutional review board approval was obtained from the University of Pennsylvania, and the CHOICE steering committee approved the project proposal. Stata statistical software version 11.0 (Stata Corp., College Station, TX) was used for all statistical analysis.

Results

A total of 23,638 patients enrolled in these six hospices during the 20-month study period. Their characteristics are described in Table 1. Overall, these patients were typical of hospice patients nationwide, with the exception of a somewhat lower proportion of nonwhite patients compared to national statistics.¹ Of the entire sample, 11,788 (49.9%) would have been affected by the face-to-face requirement before the start of their third benefit period. The proportions of patients still alive at the end of the 10-month follow-up periods in the two cohorts were similar: postrequirement 719/11,788, 6.1%, versus prerequisite 824/10,636, 7.0%; odds ratio 0.87, 95% CI: 0.75–1.01; $p = 0.069$.

In the postrequirement cohort, 1328 patients had a total of 2687 certifications or re-certifications for which a face-to-face visit was required. Of these, all (1328) needed a visit at the third benefit period, 719 needed one at the fourth, and 640

TABLE 1. CHARACTERISTICS OF PATIENTS AT THE TIME OF HOSPICE ADMISSION, BEFORE AND AFTER IMPLEMENTATION OF THE FACE-TO-FACE VISIT REQUIREMENT^a

	Before face-to-face requirement N=11,850	After face-to-face requirement N=11,788	p-value
Age (mean)	78.4	78.6	0.220
Gender, male (%)	5257 (44.4%)	5309 (45.0%)	0.255
Race, white (%)	10,389 (89.9%)	10,455 (92.2%)	0.134
Initial site of care (%)			
Home	5943 (50.2%)	5372 (45.6%)	0.150
Nursing home	2547 (21.5%)	2502 (21.2%)	0.935
Hospital	781 (6.6%)	865 (7.3%)	0.345
Hospice unit	2203 (18.6%)	2682 (22.8%)	0.046
Other ^b	376 (3.2%)	367 (3.1%)	0.769
Diagnosis (%)			
Cancer	4407 (37.2%)	4363 (37.0%)	0.886
Debility	1718 (14.5%)	1262 (10.7%)	0.011
Dementia	1286 (10.8%)	1385 (11.8%)	0.361
Cardiac disease	1596 (13.5%)	1573 (13.3%)	0.906
Pulmonary disease	787 (6.6%)	862 (7.3%)	0.047
Stroke	564 (4.8%)	625 (5.3%)	0.165
Other	1492 (12.6%)	1718 (14.6%)	0.001
PPS score	34.6	34.40	0.090
Foley catheter	2147 (18.1%)	2604 (22.1%)	0.067
Oxygen	4365 (36.8%)	4149 (35.1%)	0.009

PPS, Palliative Performance Scale.

^aUnivariate logistic regression models, with robust standard errors clustered by hospice.

^bIncludes prisons, homeless shelters, prison, friend/family member's home.

needed one at the fifth. Discharge rates were similar across the visits performed at the third benefit period (192/1328, 14.6%), the fourth benefit period (95/719, 13.2%), and the fifth (84/640, 13.1%).

In univariate analysis there was a significant decrease in the rate at which patients were discharged after the requirement was implemented: 371/11,788; 3.2% versus 578/11,850, 4.9%; OR 0.63; 95% CI 0.55–0.72; $p < 0.001$. There was no variation in discharge rates among diagnoses (nonsignificant interaction term). To determine whether the change in discharges might have been due to secular trends over time, we examined the change in decertification rates over time. Overall, rates declined during the 20-month study period, and there was an average absolute decrease of 0.46%/year: β 0.02; 95% CI 0.12–0.029; $p = 0.013$ for change/month. However there was no significant change over time before the requirement— β 0.001; 95% CI < 0.029 ; $p = 0.155$ for change/month—or afterwards, β 0.00; 95% CI < 0.012 ; $p = 0.724$ for change/month.

We also examined decertification decisions for those patients who had received hospice care for at least six months, or at the start of the third benefit period, whichever came first ($n = 2822$). Before the requirement went into effect, 12.4% of these patients were decertified (185/1494). After the requirement, 6.8% were decertified (90/1328)—clustered OR 0.51; 95% CI 0.28–0.93; $p = 0.028$.

There were several differences in patient characteristics before and after the face-to-face rule was implemented (see table). For instance, there was a slight increase in the proportion of patients admitted directly to a hospice unit—22.8%

after the requirement versus 18.6% before; $p = 0.046$ (see table). There was also a reduction in the proportion of patients admitted with a diagnosis of debility, 10.7% versus 14.5%, $p = 0.011$, and a corresponding increase in patients admitted with a diagnosis of pulmonary disease—7.3% versus 6.6%, $p = 0.047$ (see table). We adjusted for seven variables that reached a moderate level of significance ($p < 0.25$ in table) in univariate analysis (age, race, site of care, diagnosis, PPS score, the presence of a Foley catheter, and use of oxygen). In a multivariable logistic regression model adjusting for these characteristics and clustered by hospice there was still a post-requirement reduction in the rate of decertification—adjusted rates 3.4% versus 5.2%; OR 0.67; 95% CI 0.47–0.97; $p = 0.034$.

Finally, we explored differences in the impact of the face-to-face requirement at each of the six participating hospices. A cohort $\times$ hospice interaction term was significant ($p = 0.002$), indicating significant variation in the requirement's impact. After adjusting for changes in baseline characteristics (age, race, site of care, diagnosis, PPS score, presence of a Foley catheter, and use of oxygen), this interaction term was still significant ($p = 0.012$). All hospices had a decrease in decertification rates after the face-to-face requirement, although the magnitude varied—absolute reduction based on adjusted rates between 1.4% and 3.6%.

Discussion

An overarching goal of the CMS face-to-face visit requirement was to ensure that long-stay hospice patients continue to meet eligibility criteria. However, this study found a net decrease in the rates at which patients were decertified following the requirement's implementation. There are at least two possible explanations for this unexpected finding.

It is most likely that a visit by a physician or nurse practitioner helped to identify additional evidence that was used to justify a patient's continued eligibility. For instance, visits might have identified previously unrecognized evidence of decline in function or new symptoms. Similarly, physicians and nurse practitioners who see patients infrequently may be more likely to notice changes compared to nurses who see the patient several times per week. Evidence of decline is used by Medicare administrative contractors to determine a patient's eligibility. Therefore, if these visits identified new problems, this new information might have tipped the balance in the case of a patient whose eligibility was uncertain.

Second, it is possible that these hospices responded to the face-to-face requirement by more actively enrolling patients who were closer to the end of life, and therefore who would be less likely to be affected by the face-to-face requirement. This interpretation is less likely, since the decrease in the decertification rate persisted after adjusting for patient characteristics. Moreover, decertification rates among patients surviving to six months also decreased, suggesting that this effect is not simply the result of a changing patient population.

Although they are preliminary, these results are unexpected and should prompt further examination of the impact of the face-to-face requirement. This requirement creates significant burdens for hospices, which must pay physicians and nurse practitioners to conduct additional visits. In this post-requirement cohort, for instance, hospices needed to conduct almost 3000 face-to-face visits. This study did not measure the financial impact of the face-to-face requirement on these

hospices, but it is likely that the costs of these additional visits are substantial. Further research is needed to better define the impact of this requirement on costs, discharges, and quality of care, in order to ensure it is having the intended effect.

This study has three limitations. First, these results may not be generalizable to the entire hospice industry. It is possible that other hospices with different patient populations and admission policies may have experienced a different impact of face-to-face visits. Indeed, even in this small sample of hospices there was significant variation in the change in decertification rates, although rates decreased in all six. Other hospices may have more permissive admission policies and a higher proportion of long-stay patients whose eligibility is questionable. In these hospices the face-to-face requirement might produce an increase in discharge rates. Further research is needed to examine the effect of the face-to-face requirement in a wider population of hospices, including those that are smaller and those that are for-profit. Further research is also needed to determine whether the requirement's impact is influenced by whether face-to-face visits are conducted by nurse practitioners or physicians.

Second, it is possible that we did not adjust for all differences in patient characteristics before and after the face-to-face rule was implemented. Changes in unmeasured patient characteristics might explain some of the decrease in decertification rates described here. However, we were able to adjust for a range of clinical variables, including site of care, functional status, and other markers of illness severity (e.g., oxygen, Foley catheter). Therefore, although no adjusted comparison can be completely accurate, there is reason for confidence in these results.

Third, it is possible that we might have found an increase in decertification rates if a longer postrequirement time period were available. That is, face-to-face visits might increase rates of decertification for very-long-stay patients (e.g., those in hospice for two years or more). However, three factors make this concern less significant. First, all long-stay patients in the dataset would have had three face-to-face visits, which should be enough to time to recognize that a patient had stabilized. Second, there was no trend toward increasing decertifications over time in the postrequirement cohort. Third, this limitation would have reduced our ability to detect an increase in decertification rates, but it cannot explain the decrease in decertifications that was observed. Nevertheless, it will be important to examine future changes over time to determine whether continued visits increase decertification rates.

Conclusions

In these hospices the face-to-face requirement appears not to have increased hospice discharges. In fact, the opposite may be true. Further research is needed to better characterize the impact of this requirement in a broader sample of hospices, and to understand the role that these visits play in determining eligibility and improving care for patients and families. Research is also needed to determine whether, and how, these visits help to ensure that hospice patients receive the best possible care at a reasonable cost.

Acknowledgments

This study was funded by National Institutes of Health grant 1K1CA156715-01 to Dr. Casarett. The study funder

had no role in the collection, analysis, and interpretation of data, in the writing of the report, or in the decision to submit the article for publication. The investigators maintained independence from funders throughout all stages of research. All authors, external and internal, had full access to all of the data (including statistical reports and tables) in the study and can take responsibility for the integrity of the data and the accuracy of the data analysis.

Author Disclosure Statement

No authors have relationships with companies that might have an interest in the submitted work in the previous three years. No authors' spouses, partners, or children have financial relationships that may be relevant to the submitted work. No authors have nonfinancial interests that may be relevant to the submitted work.

References

1. National Hospice and Palliative Care Organization: *Facts and Figures: Hospice Care in America*. 2010. www.nhpc.org/files/public/Statistics_Research/Hospice_Facts_Figures_Oct-2010.pdf. (Last accessed December 4, 2012.)
2. Wachterman MW, Marcantonio ER, Davis RB, McCarthy EP: Association of hospice agency profit status with patient diagnosis, location of care, and length of stay. *JAMA* 2011; 305:472–479.
3. Centers for Medicare and Medicaid Services: MLN Matters® Number: MM7478, pp. 2–3. www.cms.gov/MLN Matters/Articles/downloads/MM7478.pdf. (Last accessed June 6, 2012.)
4. Younis T, Milch R, Abul-Khoudoud N, Lawrence D, Mirand A, Levine E: Length of survival in hospice for cancer patients referred from a comprehensive cancer center. *Am J Hosp Palliat Care* 2009;26:281–287.
5. Weng L-C, Huang H-L, Wilkie DJ, et al.: Predicting survival with the Palliative Performance Scale in a minority-serving hospice and palliative care program. *J Pain Symptom Manage* 2009;37:642–648.
6. Harrold J, Rickerson E, McGrath J, Morales K, Kapo J, Casarett D: Is the Palliative Performance Scale a useful predictor of mortality in a heterogeneous hospice population? *J Palliat Med* 2005;8:503–509.
7. Morita T, Tsunoda J, Inoue S, Chihara S: Validity of the palliative performance scale from a survival perspective. *J Pain Symptom Manage* 1999;18(1):2–3.
8. Anderson F, Downing GM, Hill J, Casorso L, Lerch N: Palliative performance scale (PPS): A new tool. *J Palliat Care* 1996;12:5–11.
9. Head B, Ritchie CS, Smoot TM: Prognostication in hospice care: Can the palliative performance scale help? *J Palliat Med* 2005;8:492–502.
10. Downing GM, Lesperance M, Lau F, Yang J: Survival implications of sudden functional decline as a sentinel event using the palliative performance scale. *J Palliat Med* 2010; 13:549–557.

Address correspondence to:
David J. Casarett, MD, MA
2615 Chestnut Street
Philadelphia, PA 19104

E-mail: casarett@mail.med.upenn.edu