ONLINE APPENDIXES 11

Hospice

ONLINE APPENDIX 11-A

Hospice visit patterns

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The Commission's prior analyses have shown that the structure of the current Medicare hospice payment system—generally a flat per diem payment over the course of an episode[1]—does not align well with hospices' higher levels of effort at the beginning and end of a hospice episode. In March 2009, the Commission recommended moving to a payment system in which the per diem payments for an episode of care begin at a relatively higher rate and decline as the length of the episode increases, with an additional payment at the end of the episode to reflect hospices' higher level of effort at the time of a patient's death.

Since the Commission made this recommendation, additional data have become available on hospice visit patterns across episodes of care. In the online appendix to our March 2010 report (http://medpac.gov/chapters/Mar10_Ch02E_APPENDIX.pdf), we analyzed patient-level data on hospice visits from a group of 17 nonprofit hospices and Medicare claims data on hospice visits during the last half of 2008 for the full Medicare population (Medicare Payment Advisory Commission 2010). Analyses of these data confirmed our earlier findings—that the number of hospice visits per week is higher early in a hospice episode and at the end of an episode near the time of a patient's death—and supported the need for a payment system that is better aligned with the U-shaped pattern of costs during a hospice care episode.

Now that Medicare claims data are available for a longer time period, we have conducted further analyses of hospice visit patterns. The results of these claims analyses affirm our previous findings and continue to support the need for payment system reform.

Medicare claims data

Beginning July 1, 2008, hospices were required to report on their Medicare claims the number of visits provided each week by three disciplines of personnel: nurses, aides, and social workers.[2] This information is the only national patient-level data available on hospice visits to Medicare beneficiaries. Previously, we analyzed the first 6 months of these data. Now, with data available through 2009, we are able to analyze a longer time horizon. Our current analyses examine Medicare claims data for a 17-month period, focusing on beneficiaries who were admitted to and discharged from hospice between August 1, 2008, and December 31, 2009.

Visits per week

Consistent with our prior analyses, the most recent Medicare claims data show that average hospice visits per week decline as length of stay increases (Figure 11-A1, p. 4). On average, patients with a stay of 30 days or less receive 6.8 visits per week, compared with 5.2 visits per week for patients with stays of 31–60 days, 4.4 visits per week for stays of 61–90 days, and 4.2 visits per week for stays of more than 90 days.[3] Given the flat per diem nature of the Medicare payment system, it is clear from these data why longer stays in hospice are more profitable than shorter stays.

The higher number of average visits per week for patients with short stays compared with patients with long stays reflects in large part the higher visit frequency at the beginning of the episode and at the end of the episode near the time of the patient's death. In the online appendix to the March 2010 report, our analysis of data from 17 nonprofit hospices demonstrated the U-shaped pattern of hospice care visits. Across all length-of-stay categories, patients in the 17 hospices received more visits per week on average during the first and last 7 days of their hospice stay than in the intervening period, with the last 7 days of life being the time with the highest visit frequency (see Table 2E-A1 in the online appendix to the March 2010 report).

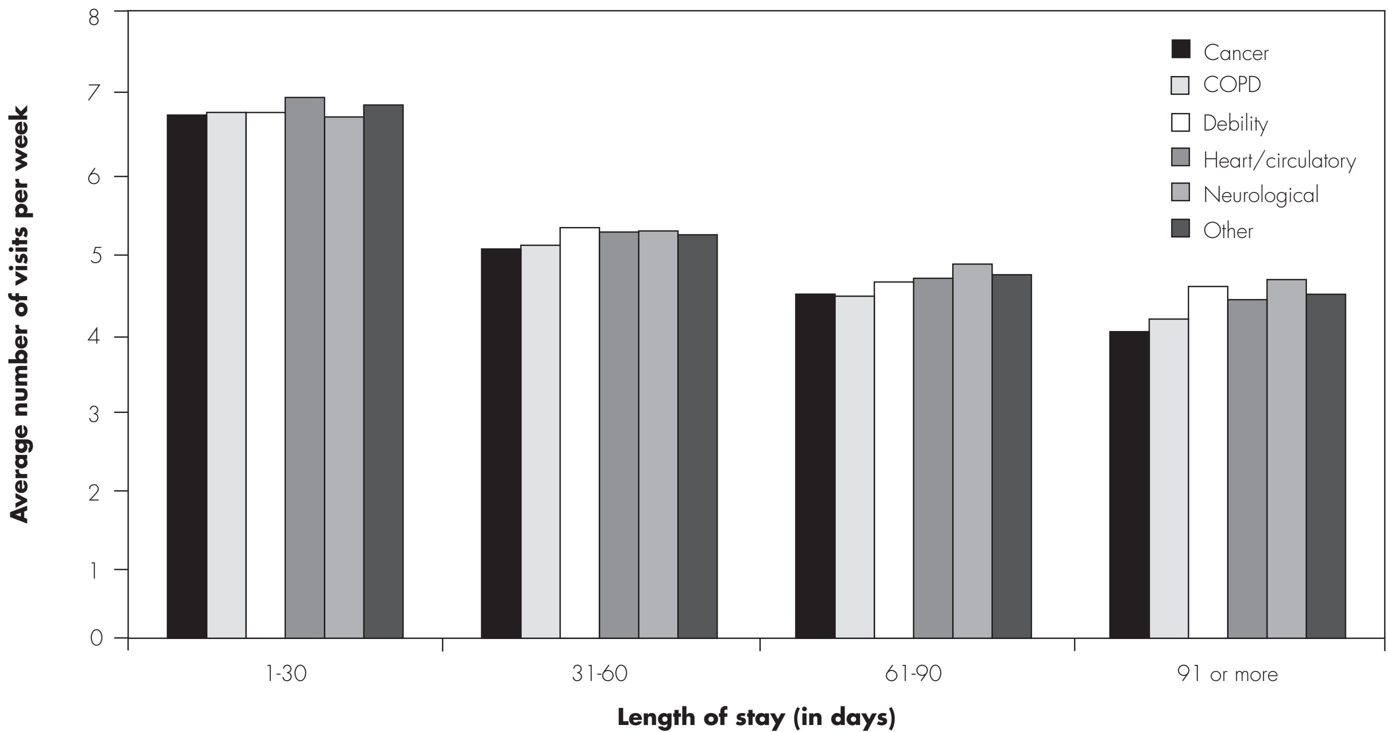
The most recent Medicare claims data also demonstrate that patients with similar lengths of stay have generally similar numbers of total visits per week on average across all diagnoses (Figure 11A-1, p. 4). For example, among patients with a stay of 30 days or less, average total visits per week ranged from 6.7 to 6.9 across different diagnoses. Somewhat more variability in average visits per week across diagnoses is observed among patients with stays exceeding 90 days. For example, among patients with stays exceeding 90 days, those with cancer or chronic obstructive pulmonary disease averaged slightly fewer total visits per week (3.9 or 4.1 visits per week, respectively) than patients with debility or neurological conditions (4.5 or 4.6 visits per week, respectively). A greater number of aide visits accounts for the higher total visits per week among patients with neurological conditions and debility.

Mix of visits by type

Consistent with our previous analyses, the mix of visits varies by length of stay and by diagnosis. Patients with shorter stays have a higher share of nurse visits and a lower share of aide visits. For example, on average, the

FIGURE 11–A1

Hospice visits per week by length of stay and diagnosis, Medicare claims, August 2008 to December 2009



Note: COPD (chronic obstructive pulmonary disease). Data include only those beneficiaries who were admitted to and discharged from hospice between August 1, 2008, and December 31, 2009. The figure reflects routine home care visits received by patients who received only routine home care. Average number of visits per week is calculated as (number of visits during hospice stay / length of stay) × 7.

Source: MedPAC analysis of Medicare hospice 100 percent standard analytic file from CMS.

share of all visits provided by nurses ranges from 38 percent for patients with a stay greater than 90 days to 59 percent for patients with a stay of 30 days or less. Within length-of-stay categories, the mix of visits varies by diagnosis. The variability in mix of visits across diagnoses is smaller among short-stay patients than for long-stay patients. For example, among patients with a stay of 30 days or less, the share of nurse visits ranges from 55 percent for patients with neurological conditions to 60 percent for patients with cancer. Among patients with a stay of more than 90 days, the share of nurse visits ranges from 37 percent for patients with debility to 47 percent for patients with cancer.

Visit patterns by length of stay and location

The Commission previously indicated that it might consider examining whether a different payment structure is needed for hospice care provided in nursing facilities (Medicare Payment Advisory Commission 2009). There are questions about whether hospice patients in nursing facilities and those in the community receive similar levels of service and whether the potential overlap in services furnished by the hospice and the nursing facility results in a reduced workload for each entity. In addition, providing hospice care in a centralized location may yield savings in travel time and allow a hospice to employ fewer staff to treat a given number of patients.

Our prior analyses in the March 2010 online appendix examining visit data for 17 nonprofit hospices and early Medicare claims data on hospice visits for the full Medicare population showed that patients in nursing facilities and assisted living facilities received more visits per week within any length-of-stay category than patients residing at home. The driver of more visits in nursing and assisted living facilities was more aide visits. Our analyses of the most recent Medicare claims data confirm those findings and demonstrate that the higher number of aide

TABLE 11–A1

Average visit hours per week by type of visit and location of visit, Medicare claims data, August 2008 to December 2009

	Length of stay (in days)			
	1–30	**31–60**	**61–90**	**91 or more**
Patients with cancer diagnoses				
Average total visits per week				
Home	6.7	4.9	4.3	3.7
Nursing facility	6.8	5.6	4.9	4.4
Assisted living facility	6.7	5.4	4.7	4.8
Average nurse visits per week				
Home	4.1	2.7	2.3	1.9
Nursing facility	3.6	2.4	2.1	1.7
Assisted living facility	4.0	2.8	2.3	1.9
Average aide visits per week				
Home	1.8	1.7	1.6	1.5
Nursing facility	2.1	2.4	2.4	2.4
Assisted living facility	1.9	2.1	2.1	2.0
Patients with noncancer diagnoses				
Average total visits per week				
Home	6.8	5.1	4.5	4.2
Nursing facility	6.7	5.2	4.8	4.7
Assisted living facility	6.9	5.4	4.7	4.6
Average nurse visits per week				
Home	4.0	2.5	2.0	1.7
Nursing facility	3.6	2.2	1.8	1.6
Assisted living facility	4.0	2.6	2.0	1.8
Average aide visits per week				
Home	2.0	2.1	2.1	2.2
Nursing facility	2.2	2.5	2.5	2.6
Assisted living facility	2.0	2.3	2.2	2.4

Note: The numbers for nurse and aide visits do not sum to the total because the total also includes social worker visits. Data include only those beneficiaries who were admitted to and discharged from hospice between August 1, 2008, and December 31, 2009. The figure reflects routine home care received by patients who received only routine home care. Average number of visits per week is calculated as (number of visits during hospice stay / length of stay) × 7.

Source: MedPAC analysis of Medicare hospice 100 percent standard analytic file from CMS.

visits in nursing facilities and assisted living facilities is observed even after taking into account length of stay and patient diagnosis.

As shown Table 11-A1, hospice patients residing at home receive more nurse visits and fewer aide visits than patients residing in nursing facilities and assisted living facilities. The net effect is that, with the exception of patients with a stay of 30 days or less, patients at home receive fewer total visits per week on average than patients in nursing facilities and assisted living facilities. This finding is the case when comparing patients with similar lengths of stay and similar diagnoses across the different settings. The difference in the amount of aide visits across settings is most pronounced among cancer patients and patients with longer stays. For example, among cancer patients with a length of stay of more than 90 days, the average number of aide visits per week is 1.5 at home, 2.0

in assisted living facilities, and 2.4 in nursing facilities. In comparison, aide visits per week among noncancer patients with a stay greater than 90 days averaged 2.2 at home, 2.4 in assisted living facilities, and 2.6 in nursing facilities.

The findings of hospices furnishing more aide visits to nursing home patients, as well as assisted living facility patients, seems counterintuitive as patients in facilities have access to aide services through the facility in addition to the hospice. While it is uncertain what accounts for this finding, one possibility is that providing services in a centralized location with multiple patients may make it easier and less costly to provide an incremental aide visit. We have also heard anecdotal reports that some nursing facilities as a condition of referring patients to a hospice request that the hospice provide an aide to "staff" the hospice patients in the nursing facility and reduce workload for the nursing facility staff. The prevalence of this type of behavior and the degree to which it could contribute to the visit patterns we see are unknown.

The issue of whether the higher number of aide visits in nursing facilities and assisted living facilities substitutes for care otherwise provided by the facilities raises questions about whether the higher level of aide visits in these settings should be taken into account in establishing payment rates for hospice under a revised payment system. In addition, a hospice's costs for providing visits in a nursing facility or an assisted living facility where hospice staff see multiple patients is likely to be lower than costs for providing visits at home. For example, hospices with a high share of nursing facility or assisted living facility patients have lower costs per day and higher margins than other hospices. We are continuing to explore whether a payment adjuster is appropriate for hospice patients in facilities to reflect any differences in the costs of care for patients in facilities and at home.

Future research

Analyses of the Medicare claims data lend further support to the need for a payment system that is better aligned with the U-shaped pattern of hospice care, as previously recommended by the Commission. The analyses conducted here suggest that, in developing such a payment system, it is important to consider several aspects of hospice visits, including the number and mix of visits. Information on the length of visits is also important and will be available in the 2010 Medicare claims data. At that time, we intend to analyze the implications for payment system reform, including the potential slope of a U-shaped curve and whether payment adjusters beyond length of stay are needed. ■

Endnotes

1 Under the Medicare hospice benefit, there are four types of care: routine home care, continuous home care, general inpatient care, and inpatient respite care. Routine home care, which can be provided in a variety of settings, including the patient's home, a nursing facility, an assisted living facility, and other types of facilities, makes up more than 95 percent of hospice days. There is a flat payment per day of about $147 for routine home care regardless of whether any visit is provided on a given day. Continuous home care is provided for more than 8 hours per day during a time of crisis and is paid an hourly rate.

2 At this time, the Medicare claims data include information only on the number and type of visits and not on the duration of visits. The Commission recommended in March 2009 that hospices report additional details of visits, including the length of time. Beginning January 1, 2010, hospices are required to report the length of visits (in 15-minute increments) as well as additional types of visits (physical, speech, and occupational therapist visits) and phone calls by social workers. We expect this additional, more detailed claims data to be available for analysis in 2011.

3 Average number of visits per week is calculated as (number of visits during hospice stay / length of stay) × 7.

References

Medicare Payment Advisory Commission. 2009. *Report to the Congress: Medicare payment policy.* Washington, DC: MedPAC.

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