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ORIGINAL RESEARCH

Episode-Based Payment for the Medicare Outpatient Therapy Benefit

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Abstract

Objective: To conduct an analysis of Medicare outpatient therapy episodes of care and associated payment implications.

Design: Retrospective observational design using Medicare claims data. To descriptively analyze the composition of outpatient therapy episodes, both variable- and fixed-length episodes are explored. The variable-length episode definition organizes services into episodes based on the time pattern of therapy service utilization, using 60-day clean periods. Fixed-length episodes are also examined, beginning with the first therapy utilization in calendar year 2010 and extending 30, 60, and 90 days.

Setting: The study is focused on community-dwelling users of outpatient therapy.

Participants: The sample includes all Medicare patients who used outpatient therapy beginning at any point in 2010.

Interventions: Not applicable.

Main Outcome Measures: Mean episode payments and episode lengths in calendar days.

Results: Variable-length outpatient therapy episodes have a mean payment of $881. On average, outpatient therapy episodes last 43 calendar days. Mean therapy durations for the 30-, 60-, and 90-day fixed-length episodes are 20, 31, and 38 calendar days, respectively. The 30-, 60-, and 90-day fixed-length initial episodes account for 40%, 55%, and 63%, respectively, of total Medicare payments. Simulations of episode-based payment illustrate the difficulty of avoiding a large number of substantial underpayments, because of the right-skewed distribution of total actual payments.

Conclusions: A strength of episode payment is that it reduces cost and potentially wasteful variation within episodes. Given the substantial variation in therapy episode expenditures, absent improvements in available data and in predictive information, a pure lump sum episode payment would result in substantial revenue changes for many episodes. Additional data are needed to better explain the wide variation in episode expenditures.

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To promote efficiency, various methodologies for episode-based payment are being considered in the current health care environment. Episode payment creates incentives to reduce episode cost and potentially wasteful variation among episodes, although it does not discourage unnecessary episodes of care.[1] Recent examples of episode payment include the Medicare Acute Care Episode Demonstration, Medicare's Bundled Payments for Care Improvement initiative, Medicare's home health prospective payment system, and Medicare's proposal for a new and mandatory bundled payment for an episode of care for total knee and hip replacement.[2-7] In 2015, the Centers for Medicare & Medicaid Services proposed adding the total Medicare Part A and Part B cost for an episode—defined as the 3 days before hospital admission through 30 days postdischarge—as a metric in the determination of the Medicare physician value modifier.[8]

At the most basic level, episodes of care have 2 major dimensions: (1) a clinical dimension, including what services or clinical conditions comprise the episode; and (2) a time dimension that reflects the beginning, middle, and end of an episode.[9] Payments tied to episodes defined from the clinical and time dimensions are determined from expected costs and may be adjusted for severity of illness and quality performance.[10]

Episodes can be defined by a fixed or variable length of time. Fixed-length episodes are calculated based on utilization that

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occurs within fixed windows of time after a trigger event such as an index hospital discharge or the initiation of treatment in therapy. This commonly includes 30-, 60-, or 90-day periods after hospital discharge or the initiation of treatment. In contrast, variable-length episodes, which to our knowledge are not being used for payment but have been studied, include utilization from initiation to a gap of a specified number of days with no related service use.[11-13] Variable-length episode definitions are commonly defined by a 30-, 45-, or 60-day gap in service use (sometimes called a "clean period") and have the advantage of being defined by actual patterns of treatment, but are more complex to specify and implement.[13] While previous research has focused on episodes originating with an acute hospitalization, the makeup and distribution of episodes in the outpatient therapy setting is not well understood.

This article provides an exploratory analysis of outpatient therapy episodes of care and associated payment implications. Outpatient therapy includes physical therapy (PT), occupational therapy (OT), and speech-language pathology (SLP). In addition to average (mean) characteristics of episodes, our goal is to better understand the distribution of episode expenditures, length, therapy days (number of days with at least 1 therapy claim), expenditures per therapy day, and the implications of the variability of therapy episodes for episode payment.

Methods

To descriptively analyze the composition of episodes of outpatient therapy, we explore both variable- and fixed-length episodes. The patterns observed in the variable-length episodes informed the various fixed-length episode variations that were subsequently analyzed.

We analyze all episodes of Medicare outpatient therapy care that began in calendar year (CY) 2010. Details of the methodology for defining outpatient therapy services were published elsewhere.[14] We study Medicare payments to therapy providers, which exclude patient liability—the Medicare Part B deductible and coinsurance (20%), to analyze utilization from the payer perspective. We restrict all analyses to community-dwelling therapy users (ie, not residing in a nursing home or other institution for >90d by the end of CY 2010). While we remove all beneficiaries with a 90-day Minimum Data Set assessment, there will still be users who have some utilization at a skilled nursing facility included in the community sample. Previous research[15] has shown very different care patterns for nursing home users. For an episode to be included in the analysis, the beneficiary must have been continually enrolled in original Medicare Part B fee-for-service (FFS), and Medicare must have been the primary payer for all months covered by the episode.

The variable-length episode definition organizes services into episodes based on the time pattern of therapy service utilization. Variable-length episodes rely on "clean periods" of no therapy utilization to define the beginning and end of the episode. We use 60-day initiating and terminating clean periods for our analysis following previous work.[16] A new episode begins with a therapy service that is preceded by at least 60 days without any therapy claims in a discipline. An episode ends with a service that is followed by 60 days with no discipline-specific therapy service use. To ensure a 60-day clean period before the start of the variable-length episodes, we examine therapy claims starting in November 2009. We allow a 12-month runout period for each variable-length episode from its start, by examining therapy claims through the end of CY 2011 for our episodes that began in CY 2010. If there is not a 60-day clean period after 12 months from the start of the episode, we censor (end) the episode at a 12-month length. Thus, episodes may have lengths from 1 day to 1 year (12mo). Episodes are specific to each of the 3 therapy disciplines. This is done to simplify the permutations and clearly present the patterns of utilization by discipline. A beneficiary may have only 1 episode in a given discipline at a time, but may have multiple and overlapping concurrent episodes simultaneously across multiple therapy disciplines.

We also examine fixed-length episodes, beginning with the first therapy utilization in CY 2010 and extending 30, 60 and 90 days subsequently. We restrict the fixed-length episode analysis to community-dwelling PT patients because PT is the most prevalent therapy discipline and we do not observe large differences between disciplines. We also restrict the fixed-length analysis to the first episode in the CY, since 88% of community-dwelling PT users have only 1 variable-length PT episode in the CY. The start date of a beneficiary's initial fixed-length episode is defined by a 60-day prior clean period, the same definition used for the variable-length episode analysis. But unlike the variable-length episode analysis, the end date is not determined by a subsequent 60-day clean period. Instead, the episode is defined by a fixed period of 30, 60, or 90 calendar days from the start date of the episode. All Medicare payments made for Part B outpatient therapy for utilization within the fixed period comprise the fixed-episode payments.

List of abbreviations:

CY	**calendar year**
FFS	**fee for service**
OT	**occupational therapy**
PT	**physical therapy**
SLP	**speech-language pathology**

Results

Variable-length episodes

Table 1 shows characteristics of 100% of variable-length community resident outpatient therapy episodes beginning in 2010 paid under Medicare FFS Part B. Of the 4.8 million therapy episodes, 79% were PT (3.8 million), 15% were OT (0.7 million), and 6% were SLP (0.3 million). We found that 88%, 92%, and 92% of therapy users only had 1 variable-length episode in the CY for PT, OT, and SLP, respectively (data not shown). In addition, we find that the mean age of therapy users was 74 years, composed of beneficiaries who are 65% women, 15% disabled, and 20% dually eligible for both Medicare and Medicaid.

Outpatient therapy episodes have a mean payment of $881. The mean payment is similar for episodes of PT ($897) and OT ($879) but is lower for SLP ($693). The interquartile range of payments is large, at $959 for all episodes, $933 for PT episodes, $1074 for OT episodes, and $757 for SLP episodes. Payments per therapy day are highest for SLP, averaging $100, which is one-third higher than the means for PT or OT.

On average, episodes of outpatient therapy last 43 calendar days, with a range from 1 day at the 1st percentile to 262 days at