Initial Treatment Intervention and Average Total Medicare A/B Costs for FFS Beneficiaries with an Incident Low Back Pain (Lumbago) Diagnosis in CY 2014 – Report Overview

In a Moran Company assessment of the most recently available Medicare claims data,[i] results indicate that beneficiaries who are newly diagnosed with low back pain (as defined by a diagnosis of lumbago[ii]) and receive physical therapy (PT) as a first line treatment option have lower total Medicare A/B costs on average in the period surrounding diagnosis and in the year following than do lumbago beneficiaries who receive injections or low back pain related surgeries as the initial treatment intervention.[iii] When incident low back pain (lumbago) beneficiaries do receive physical therapy, average total Medicare costs are also lower when therapy begins within the first 45 days of diagnosis. The findings from this report signal possible advantages of therapy as a potential cost saver relative to other treatment interventions for low back pain. These results, coupled with findings from the literature, lend support for the role of therapy early in the care continuum from a cost perspective.

Highlights of study findings include:

- The study population consisted of 472,000 Medicare Fee for Service (FFS) beneficiaries with an incident low back pain (lumbago) diagnosis[iv] from Medicare claims data in 2014. Almost 13% of these beneficiaries received low back pain related physical therapy as the first line treatment.

- Total Medicare A/B spending on average for beneficiaries who receive therapy as the first treatment option is ~19% less than total average Medicare A/B spending for beneficiaries who receive injections first and ~75% less than total average spending observed for the surgery first group.

- In the year following diagnosis, the difference in average spending was approximately 18% between the therapy first group and the injection first group, and approximately 54% between the therapy first group and the surgery first group of beneficiaries.

- Beneficiaries who receive therapy within the first 15 days of diagnosis are observed to have downstream costs that are ~ 27% lower on average than downstream costs observed for the group of beneficiaries who receive therapy between 45-90 days after diagnosis.

A number of studies in the published literature support these findings and provide consistent evidence that early initiation of physical therapy for low back pain leads to a decrease[v] in healthcare costs through less subsequent utilization of other types of services (e.g., imaging, injections, surgery, opioids).[vi, vii, viii,ix, x] While the research presented in this report does not attempt to study health outcomes, the literature does present evidence that early physical therapy following a primary care visit for low back pain (compared to usual care of delayed therapy) provides moderate improvement in disability[xi] and also shows that early PT is not associated with poor outcomes.[xii] The findings from this report have potentially important implications for care coordination, care management and for the transition from volume-based to value-based reimbursement in the context of Medicare payment reform and should be investigated further.

[i] Medicare Part A and B limited data sets (LDS) Standard Analytic File (SAF) 5 percent sample data from the CMS carrier, outpatient, inpatient, SNF, home health, hospice and DME files and corresponding denominator files years 2013-2015. Estimates projected to national levels per the standard CMS weighting process.
[ii] ICD-9-CM Code 724.2
[iii] Given the scope of this analysis, we did not attempt a detailed statistical analysis of the link between initial treatment inputs and spending outputs and accordingly do not demonstrate a causal relationship between initial choice of treatment and subsequent Medicare costs.
[iv] Incident lumbago beneficiaries identified during the period 2/1/14-9/30/14.
[v] Reduced odds and reduced risk for subsequent utilization of additional healthcare services.
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