

Addressing the Issue of Cost and Cost-effectiveness In Joint Replacement Rehabilitation

The JOINTS Study Project Team views the issue of cost and cost-effectiveness as an important research issue when examining the merits of SNF- and IRF-based rehabilitation care. The Team has deferred full consideration of the cost issue until now in the interest of ramping up for the primary data collection tasks ahead as outlined in the study's Research Plan. The Project Team seeks the advice of the Policy Advisory Panel on this matter.

There are several ways in which to address this issue with different levels of sophistication. People mean different things when they say that IRF-based care or SNF-based care is more cost-effective. Both "costs" and "effectiveness" can mean very different things.

We want to obtain advice from the Policy Advisory Panel about the "level of discourse" that we would want to achieve in looking at cost issues in rehabilitation for patients with lower extremity joint replacement. There are important trade-offs to be made—mainly between level of cost analysis sophistication versus timeliness. There are some analyses that can be done relatively quickly and others that will take much more time. Moreover, different approaches may not be sufficiently satisfactory for different policy makers and stakeholders who may believe that important costs or benefits may be overlooked by a more truncated approach.

Costs can mean:

1. The cost to the payer, the amount paid by the payer for a SNF or IRF admission. In a PPS environment, the costs to the payer are the fixed amounts provided under the PPS. (Payment amounts should be standardized for varying costs of labor in different parts of the nation.)
2. The cost to society including provider cost of production, cost of post-discharge health care utilization, cost of institutionalization, the opportunity costs to family members who provide care to the individual, etc.

Possible sources of cost data:

1. IRF-PAI data
2. SNF-MDS data
3. MedPAR data
4. Medicare claims data
 - a. Medicare Part A
 - b. Medicare Part B
5. Hospital & SNF cost reports
6. Data provided by other payers
7. Financial data provided directly by facilities (IRFs & SNFs)
8. Utilization data provided by patient self-report and then assigning an estimated cost to each major episode of care
9. Etc.

Other issues:

- Medicare only, or all payers?
- Cost of physician services under Part B
- Obtaining cost data for Medicare+Choice and Medicare Advantage patients
- Obtaining prescription drug costs/outlays

Effectiveness can mean:

2. The outcome, i.e., the change in functional status from admission to discharge, post-discharge living arrangement, degree of post-discharge social participation at 3 or 6 months, averting a rehospitalization episode, etc.
 - The challenge here is assigning a relative value to each outcome. For example, how much more important is living at home than living in an institution? When we consider several outcomes, what weight do we give to each outcome?
3. The financial savings to the payer or society when an adverse outcome is averted, e.g., the amount saved in a period of time when a rehospitalization is averted or when an institutional placement is averted.
 - The challenge here is measuring the cost of the adverse outcome. If one averts institutionalization, how does one measure the cost of that institutionalization? The total costs in a particular period of time? The net cost of institutionalization (the cost of institutionalization minus the amount that would be spent if the individual were living on their own in the community)? What if the cost of institutionalization is borne by the individual or family and not by the public sector—do we then only consider the cost to the public sector or the cost to all entities? If the individual is living with family, do we consider the forgone income required to care for the individual (opportunity costs)?
 - One of the biggest issues is how an investment in IRF or SNF care can avert subsequent hospitalizations for complications that may be related or unrelated to the joint replacement rehabilitation episode. In other words, we would look at the cost of IRF and SNF rehabilitation and compare the costs of these two types of care to the cost of subsequent hospitalizations (risk adjusting of course). Advocates of IRF care, for example, maintain that IRF care is more expensive but, if IRF patients, on a risk-adjusted or case-mix basis, had fewer rehospitalizations subsequent to their rehabilitation, IRFs would be seen as possibly more cost-effective.

Perhaps the simplest approach:

1. For the “cost” of SNF or IRF care, we could look solely at payment and reimbursement and perhaps adjust for facility-specific adjustments related to cost of labor or cost of production across different areas of the U.S. We would limit the analyses to FFS Medicare.
2. For IRFs-Medicare, we can determine payment from the CMG. For SNFs-Medicare, we need to determine the RUGs assignment and the LOS in each RUG. In both instances, we could obtain data from each facility’s accounting or financial services division including

data on physician services paid under Part B. This may be problematic for facilities that do not have staff physicians where physicians do their own billing. We may have to come up with estimates.

3. The savings associated with averted post-discharge hospitalizations could be considered. We could look at MedPAR and Medicare claims data for either actual costs or to develop estimated costs. One difficulty in addressing this item is that it will extend the timeline for the study since we would want to look at a 6-12 month period following discharge.

Other challenges:

- Because of HIPPA etc., it has become difficult to construct episode-of-care data from CMS sources. Can only look at data by quarter but cannot tell the sequence of events or sequence of health care encounters within a quarter. This makes longitudinal studies more difficult.
- Obtaining timely data from CMS and other sources.

