Patients who experience life-altering hospitalizations -- in this case, strokes -- are often discharged not to home, but to either inpatient rehabilitation facilities (IRF) or skilled nursing facilities (SNF). A new study shows that patients sent to IRFs do better than those assigned to SNFs. But as always, the story is more complicated.

Background

Patients experiencing a stroke are often left with a range of losses that can modestly or significantly change their life, especially with regards to activities of daily living and just getting around the house safely. Before discharge, these patients are evaluated by the in-hospital care team that includes physical and occupational therapists and discharge planners. Post-discharge care ranges from no specific intervention to home physical and occupational therapy to inpatient rehabilitation and skilled nursing facilities. The decision is predicated first upon patient need, the expectation of improvement, and the resources available to both patient and system. For example, for a patient that simply needs outpatient physical therapy, that care might be provided in their home if they have no means of transportation.
As a broad-brush generalization, inpatient rehabilitation is more aggressive care. Because patients are required to participate in therapy 3 hours daily in an IRF, some patients who might benefit from more aggressive care, but who do not have that level of physiologic reserve, are directed to SNFs. Another factor to consider is that payment for IRF is higher than SNF if for no other reason than the amount of rehabilitative care provided. That has led to “cost” variation, anathema in a world of standardized care, and because these populations going to IRF or SNF “overlap,” there is a recent push to equalize the payments. (In the real world, that means lowering IRFs payments, not raising SNFs.)

The Study

Using Medicare’s datasets, roughly 100,000 patients between January 2013 and November 2014, who had a hospitalization for stroke, were reviewed. Two-thirds went to IRFs, the remaining third to SNFs. All of these patients undergo a standardized assessment of their mobility and self-care upon admission, which is the source of the findings. Of course, the data included the usual covariants.

Patients admitted to SNFs were older, female, with more co-morbidities, and longer lengths of stay during their initial hospitalization for the stroke. Certainly, findings, except for gender, that would be anticipated for individuals with less physiologic reserve. More importantly, they had lower mobility and self-care abilities upon admission to the SNF.

- IRF patients showed greater improvement than SNF patients.
- IRF patients improved from their baseline mobility by 26% and self-care by 30%
- IRF patients improved from their baseline mobility by 8.5% and self-care by 7.6%
- Considering all the various weightings and adjustments, IRF patients had double the improvement from their baselines as compared to SNF patients.

The researchers sought to “control” for selection bias by determining the 30-day and 1-year mortality of these patients under the assumption that the patient’s discharge location played no role in their deaths. IRF patients had lower 30-day and 1-year mortality, indicating that SNF patients were actually, more frail, there was a selection bias. The fragile were directed towards SNFS and away from IRFs. But, that wasn’t bias at all; that was a criterion for how these patients were selected for IRF or SNF.

"Currently, the decision-making process in selecting post-acute care services is heavily influenced by nonclinical factors."

This was how the authors began their discussion, my clinical experience was that availability of a bed, and its geographic location was important but certainly not the primary factor. I looked at all five of the references given for that statement, and none of them suggested that nonclinical factors “heavily” influenced anything. They said that non-clinical factors had a role, but apportioned no share or weighting. (So even in journal articles, Trust but Verify). I would argue that the reason that IRFs showed better rehabilitation results was based on the potential of the patients they were given, not on some magic treatment plan they had devised.

Patient’s potential improvement varies, and it is easy to identify the extremes that need IRF or
SNF; the problem is in the middle where either might work. In that instance, the setting for rehabilitative care may well make a difference, but that was not studied. As the authors write, "It is not possible to directly measure the size of the population of marginal patients." In the real world, that is the time that non-clinical factors, like proximity to the family, may have an outsize role. But that is when the physician and the care team have the opportunity to provide bespoke care and advocate for the best possible recovery for the patient. Relationship and connection matter, physicians, are patient advocates; they will fight to get the marginal patient into IRF. Providers, on the other hand, are transactional workers, where any type of discharge bed is OK as long as they are moving product.

Source: Comparison of Functional Status Improvements Among Patients With Stroke Receiving Post-acute Care in Inpatient Rehabilitation vs Skilled Nursing Facilities JAMA Network Open DOI: 10.1001/jamanetworkopen.2019.16646

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