Hospital readmission history a valid measure of skilled nursing quality

1 November 2016, by David Orenstein

A new study suggests that the historical hospital readmission rate of a skilled nursing facility is indeed an indicator of the quality of its care for residents. Credit: Pixabay

When an elderly loved one is discharged from a hospital to a skilled nursing facility (SNF), the family's hope is that they will get good care that will allow them to return home rather than poor care that requires a return trip to the hospital. That's why on its Nursing Home Compare website, the federal government recently included an SNF's historical track record of 30-day hospital readmissions in its ratings of care quality.

A rigorous statistical analysis in the journal *Health Services Research* backs the idea that readmission history is a valid quality measure. Though the measure may seem intuitive, said lead author Momotazur Rahman, an assistant professor in the Brown University School of Public Health, its significance could have been diluted by confounding factors. An SNF can have a low hospital readmission rate for either of two competing reasons: It treats healthier patients or it

provides better quality of care.

The new study compares [hospital readmission](#) among patients discharged to SNFs with different levels of historical readmission rates. What the authors found is that a historical readmission rate is a strong predictor of future readmissions after disentangling key confounding factors.

"We do think that it reflects quality, at least in terms of likelihood of re-hospitalization," Rahman said.

Narrowing down factors

To make their findings, the team gathered and analyzed four years (2009 to 2013) of Medicare data on SNF admissions and resulting hospital readmissions. The researchers used those to calculate the historical readmission rate of more than 14,000 SNFs serving millions of patients. The rates varied significantly: the best quartile's rates were below 17 percent, and the worst quartile's rates were above 23 percent. Then they compared the effect of treatment in a low-readmission SNFs vs. high-readmission SNFs on new SNF patients in 2013.

What accounted for the different readmission rates? And how well did they predict new readmissions? The particular confounding factor that worried experts, including Rahman and his co-authors, was called "patient selection." Like the best hospitals sometimes receive the most serious patients, what if the entire reason some SNFs send a lot of patients back to the hospital within 30 days is because they received very sick patients in the first place?

Unfortunately, data about the severity of illness among people discharged from the hospital and admitted to each SNF is unavailable, so it's not possible to directly measure how patient condition determines what patients go to which SNFs.

But other factors are measurable, and if they are strong predictors of which patients go where, then that could put a constraint on how much influence patient selection must have.

In the study, Rahman's team shows that the simple measures of proximity to the hospital and the patient's home, as well as available beds, are indeed strong predictors. In other words, patients aren't going to SNFs based solely, or even mainly, based on how sick they are. They are going to SNFs, to a significant extent, based on logistics-related preferences.

Past performance implies future results

With a statistical model incorporating this insight, the researchers then looked at the effect of treatment in a low-readmission rate SNF (instead of high-readmission rate SNF) on new SNF patients in 2013. They found it was quite influential indeed.

If a patient goes to an SNF with a 25 percent historical rate instead of a SNF with a 15 percent rate, the chances of ending up back in the hospital increases by 8 percentage points, Rahman said.

That finding makes it more difficult to believe that a SNF's readmission rate is based entirely on systematic differences in the condition of incoming patients, Rahman said. Instead, re-hospitalization appears to be based largely on care quality given; and a main reason patients go to one SNF vs. another has nothing to do with their condition.

In the long term, consumers can have a say in SNF care quality, the authors note.

"Now that the website is reporting SNF readmissions, having patients choose low-readmission SNFs will further encourage SNFs to compete on this measure, which would lower the overall rate of SNF readmissions in the market," they wrote.

Provided by Brown University

APA citation: Hospital readmission history a valid measure of skilled nursing quality (2016, November 1) retrieved 2 August 2022 from https://medicalxpress.com/news/2016-11-hospital-readmission-history-valid-skilled.html