Unplanned Readmissions: Are They Quality Measures or Utilization Measures?

August 18, 2017
By Pat Stricker, Senior Vice President

Hospital Readmissions Are Associated With Unfavorable Patient Outcomes and High Financial Costs

Prior to 2008, nearly 20% of all Medicare discharges had a readmission within 30 days, costing taxpayers $15 Billion a year. It was estimated that 12% of readmissions were potentially avoidable. Preventing even 10% of those would save Medicare $1.5 billion annually. Consequently, reducing hospital readmissions was made a national priority.

In 2008, the Centers for Medicare & Medicaid Services (CMS) began confidentially reporting readmission rates and resource usage to hospitals and physicians. In 2009, they publicly reported the data on hospital readmission rates and added it to Hospital Compare website. This website provides consumers with a wealth of information about hospitals to help them make informed decisions by comparing all Medicare/Medicaid hospital performance measures (patient experiences, timely & effective care, complications, readmissions & death, use of medical imaging, and payment & value of care).

Before 2012, hospitals received payment using the inpatient prospective payment system (IPPS), which pays based on a diagnosis-related group (DRG). These cover the inpatient stay, as well as outpatient diagnostic and admission-related outpatient non-diagnostic services provided by the institution on the date of the patient's admission or within 3 days immediately preceding the admission date. It does not include post-discharge care or interventions, so hospitals had no financial incentive to reduce the incidence of readmissions.
Therefore, in order to reduce readmission rates, CMS felt hospitals participating in IPPS needed to have a direct financial incentive. The Affordable Care Act (ACA) established that incentive with the Hospital Readmissions Reduction Program (HRRP) that required CMS to reduce payments to IPPS hospitals that had “excess readmissions” beginning with discharges on October 1, 2012.

Readmissions are defined as admissions to a hospital within 30 days of a discharge from the same or another subsection hospital. “Excess readmissions” are a measure of a hospital’s readmission performance for specific conditions compared to the national average for that same condition. CMS used a risk adjustment methodology endorsed by the National Quality Forum (NQF) to calculate “excess readmission ratios”. These ratios are determined by dividing a hospital’s number of “predicted” 30-day readmissions by the number that would be “expected”, based on an average hospital with similar patients. A ratio greater than 1.0000 indicates “excess readmissions”. Hospitals must have a period of 3 years of discharge data and at least 25 initial hospitalizations for a diagnosis to calculate the excess readmission ratio for each condition.

The conditions (cohorts) for measurement are identified based on the primary discharge diagnosis, not the DRG assigned to the hospitalization. The conditions initially included in HRRP were acute myocardial infarction, heart failure, and pneumonia. In 2015, acute exacerbation of chronic obstructive pulmonary disease (COPD) and elective total hip and knee arthroplasty were added. In 2017 coronary arterial bypass graft (CABG) surgeries were added and the pneumonia readmission measures were expanded to include pneumonia diagnoses for aspiration pneumonia and sepsis coded with pneumonia present on admission (but not including severe sepsis).

HRRP continues to refine its policies, including changes in the methodology to calculate the hospital readmission adjustment and accounting for “planned” readmissions, such as acute myocardial infarction patients who later need a CABG or percutaneous coronary intervention (PCI). CMS also developed an algorithm to account for a
wider range of these planned readmissions that provide high quality care and should not affect payment.

The penalty for excess admissions is a percentage of total Medicare payments to the hospital. The maximum penalty was set at 1% for 2013, 2% for 2014, and 3% for years 2015-2017. The penalties assessed to hospitals are CMS’ savings.

So, how are we doing with the program? Are we obtaining the anticipated cost savings?

The following table shows high level results for the past five years. The average penalties for each hospital are small, ranging from 0.42% to 0.74% of their total Medicare payments. However, this is a lot for hospitals to give up, so many hospitals are not happy with the program. The total CMS savings (total penalties) for the program over the past 5 years has been $1,893,000 billion. While that seems like a lot, it is very small compared to the $588 Billion Medicare budget for 2016 and it has not met the $1.5 Billion expected each year when the program was started. If we had met that goal the total savings by this year would have been $7.5 Billion.
<table>
<thead>
<tr>
<th>Fiscal Year</th>
<th>Readmission Measure</th>
<th>Data Years</th>
<th># of Conditions</th>
<th>Max. Penalty</th>
<th>Hospitals Penalized</th>
<th>Avg. Penalty</th>
<th>Total Penalties</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>Acute Myocardial Infarction, Heart Failure, and Pneumonia</td>
<td>2008-2011</td>
<td>3</td>
<td>1%</td>
<td>2,213</td>
<td>0.42%</td>
<td>$290 M</td>
</tr>
<tr>
<td>2014</td>
<td>Same as 2013</td>
<td>2009-2012</td>
<td>3</td>
<td>2%</td>
<td>2,225</td>
<td>0.38%</td>
<td>$227 M</td>
</tr>
<tr>
<td>2015</td>
<td>2014 measures plus Hip/Knee replacement and COPD</td>
<td>2010-2013</td>
<td>5</td>
<td>3%</td>
<td>2,610</td>
<td>0.63%</td>
<td>$428 M</td>
</tr>
<tr>
<td>2016</td>
<td>Same as 2015</td>
<td>2011-2014</td>
<td>5</td>
<td>3%</td>
<td>2,592</td>
<td>0.61%</td>
<td>$420 M</td>
</tr>
<tr>
<td>2017 (est.)</td>
<td>2015 measures plus CABG and addition of 2 pneumonia diagnoses</td>
<td>2012-2015</td>
<td>6</td>
<td>3%</td>
<td>2573</td>
<td>0.74%</td>
<td>$528 M</td>
</tr>
</tbody>
</table>

* 5th Year 2017 (estimates): approximately 79% of hospitals will be penalized, with 1.8% receiving the maximum penalty of 3%. Additional costs are related to additional conditions.

A **Truven Health Analytics™ study** evaluated 3,000 short-term, acute-care, non-federal hospitals from across the country from 2011 to 2015 using public data from **Medicare’s Hospital Compare website** to analyze
30-day readmission rates. They found that readmission rates started falling in 2012, and have continued to drop since then.

<table>
<thead>
<tr>
<th>Medicare Readmission Rates from 2008 – 2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Heart Failure</td>
</tr>
<tr>
<td>----------------</td>
</tr>
<tr>
<td>2008</td>
</tr>
<tr>
<td>2014</td>
</tr>
<tr>
<td>% of Decline</td>
</tr>
</tbody>
</table>

As shown above, readmission rates for the three original conditions have shown a steady decline from 2008 to 2014. Heart attack readmissions have declined 0.68% each year for the past 5 years, resulting in a drop from 20% to 17%. Heart failure rates declined from 25% to 22%.

The study also found that 30-day readmissions rates for each of the conditions tracked by CMS have declined from 2011-2015. The following are average annual rates of decline.

- Heart attack and hip/knee replacements: -0.68%
- Heart failure: -0.56%
- Pneumonia: -0.38%
- COPD: -0.36%
Readmission rates by hospital types varied with major teaching hospitals having the highest adjusted readmission rates for heart attack, heart failure, and COPD. Smaller community hospitals had higher adjusted readmission rates for CABG surgeries.

Hospital ownership also affected the readmission rates. For-profit hospitals had significantly higher unplanned readmission rates than not-for-profit hospitals. The largest difference was in heart failure rates (0.51%), while the smallest was in hip/knee replacements (0.14%).

Readmission rates also varied from hospital to hospital, showing large differences between hospitals with the highest and lowest readmission rates, suggesting there are definitely opportunities for improvement in many hospitals. The differences between the top performers and the lowest performers ranged from 7.1% for knee/hip replacement to nearly 17.8% for heart failure.

However, the early significant changes have slowed or remained the same in the past few years. For example, the number of hospitals receiving penalties has remained between 78-79% for the past 3 years and approximately 20% of Medicare patients are still being readmitted within 30 days of discharge, which is similar to the data found prior to 2008. This has caused many to question why HRRP is still a top priority for CMS. They feel CMS should restructure or move on to a more meaningful program.

HRRP has also not been a favorite program since its inception. Although it was called a hospital incentive program when it was conceived and launch, it is seen as a penalty program by the hospitals since about 80% of them have had to pay penalties, which were deducted from their CMS payments.

Healthcare leaders and organizations are also beginning to question various aspects of the program: Why have the results leveled off? Has it reached its maximum potential? Why are reductions in readmissions only thought of as a positive? Could the reductions also have unintended negative consequences? Could the increasing financial
pressure to reduce readmissions result in not admitting patients that need to be readmitted? If so, could that eventually lead to rationing of care and increase mortality rates? Why are readmissions rated similarly to mortality in the CMS Star Ratings? Are readmissions really a quality metric? Or are they a measure of many factors of which quality is one such factor?

These questions prompted researchers at Johns Hopkins Hospital to conduct a study to examine nearly 4,500 acute-care hospital's readmission rates and compare them to the hospital's mortality rates for CMS' standard measures of heart attack, pneumonia, heart failure, stroke, COPD, and CABG.

They found that hospitals with the highest rates of readmission were more likely to show better mortality scores in patients treated for heart failure, COPD, and stroke. Adjusted odds ratios showed that patients treated at hospitals with higher readmission rates had a slightly better chance of survival than patients who were admitted to hospitals with lower readmission rates.

The study's comments and recommendations included:

- Most readmissions are not due to defects in care by the provider or hospital or by things that should have been done by the provider or hospital. They are due to the patient's illness, their quality of outpatient care and their engagement and follow-through.

- System defects should be identified by using root cause analysis on specific readmission cases that were clearly preventable.

- Episodes of care should be looked at as part of a continuum of care rather than considering discharge as the end of an episode. Transition of care processes and continued follow through are essential.

- Readmissions, just like length of stay, should be considered a utilization measure, not a quality measure.
The added focus on trying to reduce unnecessary readmissions is definitely an important aspect of healthcare, especially as it relates to cost savings. However, it has to be done judiciously so quality of care is always a key goal, not just meeting reduction numbers to minimize financial penalties.

While the study found a small but significant association between good mortality rates as described by CMS and high readmissions at the hospital level, the study recommendations stressed that they do not correlate exactly. They feel the data shows that readmissions have no role in quality measure assessments and should not be a Five-Star Rating, because they are a measure of utilization, not a measure of quality.

Another similar study conducted by Yale New Haven Health researchers looked at over 6,000,000 hospitalizations to see if readmissions had any unintended consequences of increasing post-discharge mortality. The data showed that reductions in hospital 30-day readmission rates were weakly, but significantly, correlated with reductions in hospital 30-day mortality rates after discharge.

They also looked at strategies being implemented to help reduce readmissions: improving coordination, communication, and cooperation among physicians and other healthcare professions and across care settings. None of these inherently have the potential to affect mortality rates.

More and more healthcare leaders and organizations are beginning to question the HRRP program. They are advocating that we spend our time, money, and resources on true quality issues that also have potential for cost savings, such as value-based programs or the bundled-payment initiative. They feel focus should be placed on positive clinical outcomes and incentive programs to achieve results, rather than financial programs with penalties that also might provide some level of positive clinical outcomes.

As you can see, reducing unplanned readmission rates is not a simple issue. HRRP has produced good results over the past 5 years and cost savings programs are definitely important, since our healthcare
spending is so high. However, improving the quality of patient care is also essential. Maybe it is time to re-focus and move on. Cost cannot be our main driving force.