Analysis of the Expected Impact of the Proposed Scoring Methodology on the Distribution of Payment Reductions

Evaluation of Proposed Reporting Measure Adjuster (RMA)

A new scoring methodology, which incorporates a reporting measure adjuster (RMA) in the calculation of the total performance score (TPS), is proposed in the PY 2017-18 NPRM. As the equations below indicate, the proposed RMA will result in a lower total performance score and possibly a higher payment reduction if a facility does not receive perfect scores on all the clinical measures. The weights of the reporting measure category score are the same ($\frac{5}{6}$) in both equations (1) and (2) below.

**Calculation Methodology**

Let $X$ stand for the clinical measure category score and $Y$ stand for the reporting measure category score, the ranges of $X$ and $Y$ are integers from 0 to 100.

According to the PY 2016 scoring algorithm, $TPS = 0.75X + 0.25Y$

Rescale $Y \in [0, 100]$ to $Y' \in [0, 30]$. The current algorithm becomes,

$$TPS = 0.75X + \frac{5}{6}Y'$$  \hspace{1cm} \text{(Equation 1)}

According to the proposed approach in the Reporting Measure Adjuster document, the reporting measure adjuster is:

$$RMA = -(30 - Y') \frac{5}{6}$$

Therefore, the reporting measure adjusted TPS is:

$$TPS_{rma} = X + RMA = X - (30 - Y') \frac{5}{6} = X - 25 + \frac{5}{6}Y'$$  \hspace{1cm} \text{(Equation 2)}

Comparing $TPS$ and $TPS_{rma}$ equations in (1) and (2) above, we have

$$TPS_{rma} \leq TPS,$$ where the equal sign holds when $X = 100$. 
We tested the RMA under three different conditions: (1) A facility receives high scores for clinical measures and low scores on reporting measures; (2) A facility receives poor clinical measure scores and perfect reporting measure scores; and (3) A facility receives perfect clinical measure scores and low reporting measure scores. Example 2 provides a clear example of how the RMA can impact a payment reduction.

**Example 1: Facility received high clinical scores and low reporting measure scores**

**Payment Reduction Scale:**

<table>
<thead>
<tr>
<th>TPS</th>
<th>Payment Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-54</td>
<td>0%</td>
</tr>
<tr>
<td>53-44</td>
<td>0.5%</td>
</tr>
<tr>
<td>43-34</td>
<td>1.0%</td>
</tr>
<tr>
<td>33-24</td>
<td>1.5%</td>
</tr>
<tr>
<td>23-0</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

**Clinical Measures:**
- Hgb > 12 score = 10
- Kt/V Measure Topic score = 10
- Vascular Access Type Measure Topic score = 9
- NHNS score = 8
- Hypercalcemia score = 10

**Proposed Reporting Measure Adjuster TPS** = Clinical TPS + Reporting Measure Adjuster

\[
\text{Current Scoring Methodology TPS} = (0.161 \times 10 + 0.161 \times 10 + 0.161 \times 9 + 0.161 \times 8 + 0.107 \times 10 + 0.0833 \times 0 + 0.0833 \times 6 + 0.0833 \times 5) \times 10 = 79, \text{ which implies a 0.0% payment reduction.}
\]

\[
\text{Proposed Reporting Measure Adjusted TPS} = (0.214 \times 10 + 0.214 \times 10 + 0.214 \times 9 + 0.214 \times 8 + 0.143 \times 10) \times 10 - (30 - 0 - 6 - 5) \times \frac{5}{6} = 78, \text{ which implies a 0.0% payment reduction.}
\]

**Example 2: Facility received poor clinical measure scores but perfect reporting measure scores**

**Payment Reduction Scale (same as in Example 1):**

<table>
<thead>
<tr>
<th>TPS</th>
<th>Payment Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-54</td>
<td>0%</td>
</tr>
</tbody>
</table>
Clinical Measures:
- Hgb > 12 score = 3
- Kt/V Measure Topic score = 2
- Vascular Access Type Measure Topic score = 0
- NHNS score = 4
- Hypercalcemia score = 0

Reporting Measures:
- ICH CAHPS score = 10
- Mineral Metabolism score = 10
- Anemia Management score = 10

Current Scoring Methodology TPS = (.161*3 + .161*2 + .161*0 + .161*4 + .107*0 + .0833*10 + .0833*10 + .0833*10) * 10 = 39, which implies a 1.0% payment reduction.

Proposed Reporting Measure Adjusted TPS = Clinical TPS + Reporting Measure Adjuster
= (.214*3 + .214*2 + .214*0 + .214*4 + .143*0) * 10 – (30 – 10 – 10 – 10) * 5/6 = 19, which implies a 2.0% payment reduction.

Example 3: Facility received perfect clinical measure scores but poor reporting measure scores

Payment Reduction Scale (same as in Example 1):

<table>
<thead>
<tr>
<th>TPS</th>
<th>Payment Reduction</th>
</tr>
</thead>
<tbody>
<tr>
<td>100-54</td>
<td>0%</td>
</tr>
<tr>
<td>53-44</td>
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<tr>
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<td>1.5%</td>
</tr>
<tr>
<td>23-0</td>
<td>2.0%</td>
</tr>
</tbody>
</table>

Clinical Measures:
- Hgb > 12 score = 10
- Kt/V Measure Topic score = 10
- Vascular Access Type Measure Topic score = 10
- NHNS score = 10
- Hypercalcemia score = 10
Reporting Measures:
ICH CAHPS score = 0
Mineral Metabolism score = 2
Anemia Management score = 3

**Current Scoring Methodology TPS** = (.161*10 + .161*10 + .161*10 + .161*10 + .107*10 + .0833*0 + .0833*2 + .0833*3) *10 = **79**, which implies a **0.0% payment reduction**.

**Proposed Reporting Measure Adjusted TPS** = Clinical TPS + Reporting Measure Adjuster
= (.214*10 + .214*10 + .214*10 + .214*10 + .143*10) *10 – (30 – 0 – 2 – 3) * $\frac{5}{6}$ = **79**, which implies a **0.0% payment reduction**.

**Impact on Minimum TPS and Payment Reduction Simulations**

We also recalculated the minimum TPS using the RMA scoring methodology and assuming reporting measure scores equal 5. In order to determine how the application of the RMA would impact payment reductions, we reran the simulations presented in the PY 2016 Final Rule. We used the benchmarks and achievement thresholds published in the PY 2016 Final Rule and determined that the adjusted minimum TPS decreased from **54** to **43**. For clinical measures, we defined the baseline period as calendar year 2012 and the performance period as calendar year 2013. Reporting measure scores were set to 5 for all facilities. The simulated payment reductions with and without applying the RMA are presented in Table 1.

<table>
<thead>
<tr>
<th>Payment Reduction</th>
<th>With Adjuster N (%)</th>
<th>Without Adjuster N (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>4606 (75.7)</td>
<td>4828 (79.4)</td>
</tr>
<tr>
<td>0.5</td>
<td>739 (12.2)</td>
<td>884 (14.5)</td>
</tr>
<tr>
<td>1.0</td>
<td>306 (5.0)</td>
<td>242 (4.0)</td>
</tr>
<tr>
<td>1.5</td>
<td>108 (1.8)</td>
<td>69 (1.1)</td>
</tr>
<tr>
<td>2.0</td>
<td>323 (5.3)</td>
<td>59 (1.0)</td>
</tr>
</tbody>
</table>

The simulated payment reductions indicate that an additional 222 (3.7%) facilities would receive a payment reduction if the RMA scoring methodology is used. With the RMA, approximately 24% of facilities would receive at least a 0.5% payment reduction, compared to 20% if the adjuster is not used. Additionally, over 5% (N=323) of facilities would receive a 2% reduction, compared to 1% (N=59) if the adjuster is not used.