Understand why PSI 90 CDI reviews matters now

By Cheryl Manchenton, RN, BSN, CCDS

If you search for Patient Safety Indicator (PSI) 90 (Patient Safety and Adverse Events Composite) in the Agency for Healthcare Research and Quality’s (AHRQ) Version 7.0 software released in October 2017, you won’t find it.

PSI-90 is currently suspended.

That’s because the agency is in “data collection mode,” collecting and analyzing ICD-10 data so it can set expected rates for PSI 90, essentially creating an ICD-10 version.

PSIs are a set of measures that screen for complications or adverse events that patients experience as a result of exposure to the healthcare system. AHRQ’s methodology requires a five-year data set to create the modified PSI, and fiscal year (FY) 2018 is the third year of the five-year collection period that will ultimately influence expected rates.

Since AHRQ is busy creating an ICD-10 version of PSI 90, CMS decided to remove this quality measure from its Hospital Value-Based Purchasing (VBP) Program and Hospital-Acquired Condition (HAC) Reduction Program beginning in FY 2019. CMS doesn’t want to penalize hospitals for PSI 90 rates that are rooted in very old data (e.g., prior to September 1, 2015), especially because hospitals may have made significant strides in improving patient care since that data was reported.

Does this mean that CDI specialists can sit back and relax, knowing that PSI 90 is excluded from these two CMS programs?

Not exactly.

CMS’ removal of PSI 90 is temporary—not permanent. This means PSI 90 must remain on CDI specialists’ radar. In fact, now is the time to improve data quality and design quality-driven workflows as AHRQ will base expected rates and weights for PSI 90 on the data that organizations collect now.

Organizations can’t change data they have already reported, but they can start making improvements that will affect future payments. Remember, once expected rates are published, it’s too late to fix organizational performance.

That’s why it’s more important than ever to ensure that PSI metrics are complete and accurate.

PSI 90 changes on the horizon

AHRQ is expected to publish updated component weights for PSI 90 on its website sometime in FY 2019. According to the FY 2018 Inpatient Prospective Payment System (IPPS) final rule, CMS will adopt a modified version of the AHRQ PSI 90 measure for the Hospital VBP Program beginning with the FY 2023 program year.

More information on the timing may be forthcoming in the FY 2019 IPPS final rule that CMS will release later this summer.

In addition, PSI 90 continues to affect quality scores for HAC Reduction and VBP programs in FY 2018 and FY 2019, albeit with data from adjudicated claims submitted between July 2014 and September 2015.

Prior to CMS’ temporary suspension of PSI 90, the agency included PSI 90 as part of both the Safety Domain for VBP and in Domain 2 of its HAC Reduction Program, where it represented 25% of the total score.

The agency continues to post PSI 90 data on its Hospital Compare website to help consumers make informed decisions and to promote safer, higher-quality, and more affordable healthcare.

Do note that in the proposed FY 2019 IPPS rule, the quality programs are being significantly modified so as not to duplicate metrics. We will await the final rule to determine under which program PSI 90 will be reported. But remember, it is also reported on the AHRQ website.
The following other organizations also continue to use PSI 90:

- Insurers and business groups to compare hospital performance rates and assess relative safety, quality, and affordability. Some commercial payers may incorporate PSI 90 benchmarks into the terms of their contracts.
- State agencies to publicly report on hospital quality, assess quality of care, and increase transparency regarding healthcare performance.
- State hospital associations, state data associations, and health systems to understand how hospitals compare on quality measures.

In addition, four of the PSI 90 elements continue to contribute to 5% of the Best Hospitals Patient Safety Score published in *U.S. News & World Report*. These elements include the following:

- PSI 04 (death among surgical inpatients with serious treatable complications)
- PSI 09 (perioperative hemorrhage and hematoma rate)
- PSI 11 (postoperative respiratory failure rate)
- PSI 15 (accidental puncture or laceration)

**CDI specialists' effect on PSI 90**

Remember, everything CDI specialists do has a ripple effect. The data that organizations capture—or omit—affects quality profiles for both the hospital and physicians. This data also potentially supports or hinders opportunities for process improvement. This is one of many reasons why CDI specialists should continue to focus on PSI 90 even though it won’t directly affect CMS’ VBP and HAC Reduction programs just yet.

The AHRQ originally created PSIs to help hospitals—not the government or payers—evaluate their outcomes and ultimately improve patient care and safety. PSIs are a set of measures that screen for complications or adverse events that patients experience as a result of exposure to the healthcare system. Organizations can usually reduce these complications or events by making changes at the provider or system level. The idea is that organizations can use this data to gauge performance and identify ways in which they could take better care of patients.

Today’s organizations can use all PSIs, including PSI 90, to accomplish the following:

- Assist hospitals in assessing, monitoring, tracking, and improving the safety of inpatient care
- Compare public reporting and pay-for-performance initiatives
- Identify potentially avoidable complications
- Provide a perspective on potential complications and errors resulting from a hospital admission

**Staying focused on PSI 90: What CDI can do now**

There are several steps that CDI specialists can take now to ensure accurate capture of PSI 90. Consider the following:

1. **Create internal benchmarks.** Track current PSI 90 rates per 1,000 discharges and compare this data with that of previous years. Does the data trend downward, or have PSI 90 rates remained the same or even increased?

2. **Design quality-driven workflows.** Establish communication and remediation processes for CDI, quality, and coding, promoting collaboration to improve outcomes. Start with the most “pressing” PSIs, then expand after the process is refined. Use the time between now and when AHRQ publishes the ICD-10 version of PSI 90 to create workflows that support quality patient care.

3. **Educate staff.** Provide role-based education for health information management, quality teams, CDI specialists, coders, and physicians about the importance of PSI 90.

4. **Perform PSI 90 audits.** Consultants can perform retrospective audits that can help organizations identify documentation insufficiencies and potential coding errors.

5. **Prioritize CDI efforts.** Each of the PSIs included in PSI 90 are weighted differently, and the weights aren’t consistent from year to year. For example, the component weight for PSI 15 (unrecognized abdominopelvic accidental puncture/laceration rate) decreased by
BEST PRACTICE FOR PSI 90 DOCUMENTATION AND DATA INTEGRITY

Consider the following documentation best practices to ensure accurate PSI 90 data:

1. Avoid documentation of “rule out” for deep vein thrombosis or pulmonary embolism without alternative diagnosis established after study. \(\text{(PSI 12)}\)

2. Distinguish between ecchymosis (flat bruising of the skin) and hematoma (bruising with mass). Also, distinguish between expected blood loss and hemorrhage. Document and code any existing coagulation disorders. \(\text{(PSI 09)}\)

3. Distinguish between lacerations or punctures that are incidental occurrences inherent to the procedure itself versus those that are a complication. If laceration of plaque is the reason for surgery, don’t code it as accidental. Query the physician if the postoperative/procedure note and operative/procedure note don’t clearly describe the circumstances of the puncture or laceration, or if the postoperative/procedure note documentation conflicts with the operative/procedure report. \(\text{(PSI 15)}\)

4. Distinguish between respiratory failure and respiratory insufficiency. Respiratory failure may be a normal part of the postoperative course. Document the reason for any longer than usual post-procedure ventilation. Also, document any neuromuscular or neurodegenerative disorders and craniofacial anomalies. \(\text{(PSI 11)}\)

5. Document the etiology of pneumothorax as well as whether it is spontaneous or congenital versus caused by medical intervention (iatrogenic). Pneumothoraces that occur during, or immediately after, a procedure are generally considered iatrogenic unless documented to be the result or component of an underlying clinical condition. Document and code any associated pleural effusion or chest trauma. Don’t code intentionally induced pneumothorax as a complication. \(\text{(PSI 06)}\)

6. Ensure accurate documentation of the present-on-admission indicator for pressure ulcers as well as documentation of the stage and location of the pressure ulcer. \(\text{(PSI 03)}\)

7. Ensure documentation of the depth of wound dehiscence as well as details such as external/superficial versus internal/deep. \(\text{(PSI 14)}\)

8. Identify the presence of clinical indications and treatment for postoperative sepsis. \(\text{(PSI 13)}\) Query the physician in the following circumstances:

   - There is no documentation anywhere in the record of sepsis other than the discharge summary.

   - Several progress notes state sepsis, but it’s not consistent in all of the progress notes and it is not documented at the time of discharge (i.e., discharge summary or final progress note).

   - Sepsis is documented early in the visit (i.e., the emergency department and first progress note) but is not listed as a diagnosis throughout the chart or in the discharge summary.

   - Both bacteremia and sepsis are documented. Seek clarification for conflicting documentation.

   - Sepsis is documented but not supported by the clinical evidence in the record.

9. Review ionic contrast documentation to assess whether the radiology contrast is the cause of any postoperative physiologic and metabolic derangement. \(\text{(PSI 10)}\)

Source: AHRQ Quality Indicators Toolkit, Table B.4, Documentation and Coding for AHRQ Quality Indicators, available by clicking here.
98.1% with the launch of AHRQ’s version 6.0 software. The component weight for PSI 14 (postoperative wound dehiscence rate) decreased by 51.1%, and the component weight for PSI 12 (perioperative pulmonary embolism deep vein thrombosis rate) decreased by 45.5%.

Likewise, the component weight for PSI 08 (in-hospital fall with hip fracture rate) increased by 389.4%, and the component weight for PSI 13 (postoperative sepsis rate) increased by 321.1%.

If your CDI specialists can’t perform concurrent reviews on all 11 PSIs included in PSI 90, focus on the PSIs with the highest component weights. These include the following:
- PSI 09 (component weight of 0.15026)
- PSI 11 (component weight of 0.21544)
- PSI 12 (component weight of 0.18429)
- PSI 13 with a component weight of 0.24132

6. Look beyond CDI. Reducing incidences of PSI 90 isn’t only about documentation improvement; organizations must also address deficiencies with quality of care. Improving the integrity of the documentation helps enhance data quality. When physicians trust the data, buy-in for clinical process improvement becomes much easier.

**Editor’s note:** Manchenton is the senior inpatient consultant, project manager and quality services lead at 3M Health Information Systems. She specializes in workflow design, program management, quality metrics, and performance. Contact her at cmanchenton@mmm.com. Manchenton’s comments and opinions do not necessarily reflect those of ACDIS, its Advisory Board, or 3M Health Information Systems.

### PSI 90 WEIGHTS: WHERE TO PRIORITIZE YOUR CDI EFFORTS

Summary of component weights in PSI 90, v5.0 and v6.0

Source: AHRQ PSI 90 Fact Sheet

<table>
<thead>
<tr>
<th>PSI</th>
<th>Indicator</th>
<th>Component Weight PSI 90 (v5.0)</th>
<th>Component Weight PSI 90 (v6.0)</th>
<th>Percentage Difference in Weights</th>
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</thead>
<tbody>
<tr>
<td>PSI 03</td>
<td>Pressure Ulcer Rate</td>
<td>0.033006</td>
<td>0.059841</td>
<td>81.3%</td>
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<td>PSI 06</td>
<td>Iatrogenic Pneumothorax Rate</td>
<td>0.075069</td>
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<td>PSI 07</td>
<td>Central Venous Catheter-Related Blood Stream Infection Rate</td>
<td>0.037684</td>
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<td>PSI 08</td>
<td>In-Hospital Fall with Hip Fracture Rate</td>
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<td>0.010097</td>
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<td>PSI 09</td>
<td>Perioperative Hemorrhage and Hematoma Rate</td>
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<td>0.085335</td>
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<td>PSI 10</td>
<td>Postoperative Acute Kidney Injury Rate</td>
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<td>PSI 11</td>
<td>Postoperative Respiratory Failure Rate</td>
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<td>0.304936</td>
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<td>PSI 12</td>
<td>Perioperative Pulmonary Embolism and Deep Vein Thrombosis Rate</td>
<td>0.337900</td>
<td>0.208953</td>
<td>-38.2%</td>
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<td>PSI 13</td>
<td>Postoperative Sepsis Rate</td>
<td>0.057308</td>
<td>0.216046</td>
<td>277.0%</td>
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<td>PSI 14</td>
<td>Postoperative Wound Dehiscence Rate</td>
<td>0.018205</td>
<td>0.013269</td>
<td>-27.1%</td>
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<tr>
<td>PSI 15</td>
<td>Unrecognized Abdominopelvic Accidental Puncture/Laceration Rate</td>
<td>0.439030</td>
<td>0.007011</td>
<td>-98.4%</td>
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