

Patient Safety and Adverse Events Composite Technical Specifications

Patient Safety Indicators 90 (PSI 90) AHRQ Quality Indicators™, Version v6.0

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Provider-Level Indicator Type of Score: Ratio

Description

The weighted average of the reliability-adjusted observed-to-expected ratios (indirect standardization of the smoothed rates) for the following component indicators:

- PSI 03 Pressure Ulcer Rate
- PSI 06 Iatrogenic Pneumothorax Rate
- PSI 07 Central Venous Catheter-Related Blood Stream Infection Rate
- PSI 08 In-Hospital Fall with Hip Fracture
- PSI 09 Perioperative Hemorrhage or Hematoma Rate
- PSI 10 Postoperative Acute Kidney Injury Requiring Dialysis
- PSI 11 Perioperative Respiratory Failure Rate
- PSI 12 Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate
- PSI 13 Postoperative Sepsis Rate
- PSI 14 Postoperative Wound Dehiscence Rate
- PSI 15 Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate

[A second version of PSI90 is available – this version omits PSI07 from the composite.](#)

The final weight for each component measure is the product of harm weights and volume weights (numerator weights). Harm weights are calculated by multiplying empirical estimates of excess harms associated with the patient safety event by utility weights linked to each of the harms. Excess harms are estimated using statistical models comparing patients with a safety event to those without a safety event in a Centers for Medicare and Medicaid (CMS) Medicare fee-for-service sample that allowed up to one year of follow-up from the discharge date for the hospital stay associated with the index event. Volume weights, the second part of the final weight, are calculated on the basis of the number of safety events for the component indicators in the all-payer reference population.

For more information, see *Quality Indicator Empirical Methods*.