

## Guidance for Using the AHRQ Quality Indicators for Public Reporting or Payment - Appendix A: Current Uses of AHRQ Quality Indicators and Considerations for Hospital-level Reporting

This appendix provides additional details, by indicator, on current uses of AHRQ's Inpatient Quality Indicators and Patient Safety Indicators and considerations when evaluating them for hospital-level reporting. This appendix amplifies the information summarized in alpha-numeric format in Table 4 of this report. See "Considerations for Hospital-level Reporting or Purchasing" in the report text for further description of the data and measurement issues that must be considered before adopting the IQIs and PSIs for hospital-level uses.

AHRQ Quality Indicator <sup>1</sup>	Current uses		Considerations for hospital-level reporting
	Quality improvement and national surveillance	Public reporting and pay for performance	
Esophageal resection volume (IQI 1)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital<sup>2</sup></li> </ul>	<ul style="list-style-type: none"> <li>Very low volume (national average = 3 procedures per year)<sup>3</sup></li> <li>Small cell sizes may impact patient confidentiality; data at the provider level may have to be suppressed</li> <li>Not applicable to the majority of hospitals</li> <li>Volume is a proxy measure, should be paired with mortality or another related quality indicator</li> </ul>
Pancreatic resection volume (IQI 2)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Very low volume (national average = 4 procedures per year)</li> <li>Small cell sizes may impact patient confidentiality; data at the provider level may have to be suppressed</li> <li>Not applicable to the majority of hospitals</li> <li>Volume is a proxy measure, should be paired with mortality or another related quality indicator</li> </ul>

<sup>1</sup> The QIs listed are from IQI version 2.1, revision 2 (September 2003) and PSI version 2.1, revision 1 (May 2003). QI software and documentation are available on the AHRQ Quality Indicators Web site: <http://qualityindicators.ahrq.gov/>.

<sup>2</sup> Public reporting of all IQIs by hospital has been done by the Texas Health Care Information Council (<http://www.thcic.state.tx.us>) and the Alliance for Quality Health Care (AQHC) and Niagara Health Quality Coalition (NHQC) (<http://www.myhealthfinder.com/newyork/>).

<sup>3</sup> All volume and mortality rate statistics are summarized from the IQI User Guide, version 2.1, revision 2 (September 2003) available for download from the AHRQ Quality Indicators Web site, archive page: [http://www.qualityindicators.ahrq.gov/iqi\\_archive.htm](http://www.qualityindicators.ahrq.gov/iqi_archive.htm) and event rates are from the PSI User Guide, version 2.1, revision 1 (May 2003) available at [http://www.qualityindicators.ahrq.gov/psi\\_download.htm](http://www.qualityindicators.ahrq.gov/psi_download.htm).

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Pediatric heart surgery volume (IQI 3)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low volume (national average = 55 procedures per year)</li> <li>Not applicable to the majority of hospitals</li> <li>Volume is a proxy measure, should be paired with mortality or another related quality indicator</li> </ul>
Abdominal aortic aneurysm (AAA) repair volume (IQI 4)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Very low volume (national average = 15 procedures per year)</li> <li>Not applicable to the majority of hospitals</li> <li>Volume is a proxy measure, should be paired with mortality or another related quality indicator</li> </ul>
Coronary artery bypass graft (CABG) volume (IQI 5)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Applicable to hospitals that provide cardiac surgical services</li> <li>Volume is a proxy measure, should be paired with mortality or another related quality indicator</li> <li>This volume may be manipulated, concern regarding appropriate utilization</li> </ul>
Percutaneous transluminal coronary angioplasty (PTCA) volume (IQI 6)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Applicable to hospitals that provide cardiac surgical services</li> <li>Volume is a proxy measure, should be paired with mortality or another related quality indicator</li> <li>This volume may be easily manipulated, concern regarding appropriate utilization</li> </ul>
Carotid endarterectomy (CEA) volume (IQI 7)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low volume (national average = 58 procedures per year)</li> <li>Not applicable to the majority of hospitals</li> <li>Volume is a proxy measure, should be paired with mortality or another related quality indicator</li> <li>This volume may be easily manipulated, concern regarding appropriate utilization</li> </ul>
Esophageal resection mortality (IQI 8)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 12 per 100 procedures)</li> <li>Not applicable to the majority of hospitals</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex) although impact may be impaired by skewed distribution</li> </ul>

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Pancreatic resection mortality (IQI 9)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 11 per 100 procedures)</li> <li>Not applicable to the majority of hospitals</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex) although impact may be impaired by skewed distribution</li> </ul>
Pediatric heart surgery mortality (IQI 10)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national 6 per 100 procedures)</li> <li>Not applicable to the majority of hospitals</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex)</li> </ul>
AAA repair mortality (IQI 11)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 17 per 100 procedures)</li> <li>Not applicable to the majority of hospitals</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex) although impact may be impaired by skewed distribution</li> </ul>
CABG mortality (IQI 12)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 4 per 100 procedures)</li> <li>Applicable to hospitals that provide cardiac surgical services</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex)</li> </ul>
Craniotomy mortality (IQI 13)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 10 per 100 procedures)</li> <li>Not applicable to the majority of hospitals</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex)</li> </ul>
Hip replacement mortality (IQI 14)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Very low rate (national rate 0.4 per 100 procedures)</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex)</li> </ul>

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Acute myocardial infarction (AMI) mortality (IQI 15)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 15 per 100 discharges)</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex)</li> </ul>
Congestive heart failure (CHF) mortality (IQI 16)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 5 per 100 discharges)</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex)</li> </ul>
Stroke mortality (IQI 7)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 11 per 100 discharges)</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex)</li> </ul>
Gastrointestinal (GI) hemorrhage mortality (IQI 18)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 3 per 100 discharges)</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex)</li> </ul>
Hip fracture mortality (IQI 19)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 3 per 100 discharges)</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex)</li> </ul>
Pneumonia mortality (IQI 20)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 8 per 100 discharges)</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex)</li> </ul>

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Cesarean section (C-section) (IQI 21)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Potential confounding bias, should be risk adjusted (QI software uses age)</li> <li>Indicator measure is enhanced when additional clinical data are available</li> <li>Lower rate is desirable but benchmark is unclear</li> </ul>
Vaginal birth after cesarean section (VBAC) (IQI 22)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Potential confounding bias, should be risk adjusted (QI software uses age)</li> <li>Indicator measure is enhanced when additional clinical data are available</li> <li>Higher rate desirable but benchmark is unclear</li> </ul>
Laparoscopic cholecystectomy (IQI 23)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Potential confounding bias, should be risk adjusted (QI software uses age and sex)</li> <li>Majority of these procedures are currently done on an outpatient basis or observation status (not included in inpatient data)</li> <li>Unclear benchmark</li> </ul>
Incidental appendectomy among elderly (IQI 24)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 3 per 100 procedures)</li> <li>Potential confounding bias, should be risk adjusted (QI software uses APR-DRG, age, and sex)</li> </ul>
Bi-lateral cardiac catheterization (IQI 25)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>Public reporting by hospital</li> </ul>	<ul style="list-style-type: none"> <li>Low rate (national rate 11 per 100 procedures)</li> <li>Applicable to hospitals that offer cardiac diagnostic or surgical services</li> <li>Procedure may be done on an outpatient basis or observation status (not included in inpatient data)</li> </ul>
PTCA mortality (IQI 30)	<ul style="list-style-type: none"> <li>State and regional hospital associations – member only reports</li> <li>Internal hospital quality improvement</li> </ul>		<ul style="list-style-type: none"> <li>Low rate (national rate 2 per 100 procedures)</li> <li>Applicable to hospitals that provide cardiac surgical services</li> <li>Offered in QI software but not part of the official QI set, available to complement volume indicator.</li> </ul>

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CEA mortality (IQI 31)	<ul style="list-style-type: none"> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>		<ul style="list-style-type: none"> <li>• Very low rate (national rate 0.8 per 100 procedures)</li> <li>• Offered in QI software but not part of the official QI set, available to complement volume indicator.</li> <li>• Not applicable to the majority of hospitals</li> </ul>
Complications of anesthesia (PSI 1)	<ul style="list-style-type: none"> <li>• National quality reports (not hospital level)<sup>4</sup></li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> </ul>	<ul style="list-style-type: none"> <li>• Private pay-for-performance initiative<sup>5</sup></li> </ul>	<ul style="list-style-type: none"> <li>• Very low rate (national rate 0.6 per 1,000 surgical discharges)</li> <li>• Small cell sizes may impact patient confidentiality, data at the provider level may have to be suppressed</li> <li>• Unspecific denominator and condition definition varies</li> <li>• Requires use of external cause-of-injury codes (E-codes)</li> </ul>
Death in low mortality DRGs (PSI 2)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> </ul>	<ul style="list-style-type: none"> <li>• Private pay-for-performance initiative</li> </ul>	<ul style="list-style-type: none"> <li>• Low rate (national rate 2 per 1,000 surgical discharges)</li> <li>• Risk adjustment may not fully account for varying levels of severity for patients included in denominator population (QI software uses age, sex, DRG, and comorbidity categories)</li> </ul>

<sup>4</sup> Use in national quality reports refers to the inclusion of these QIs in the measure set of the *National Healthcare Quality Report* and the *National Healthcare Disparities Report* released by the U.S. Department of Health and Human Services in 2003 (<http://www.qualitytools.ahrq.gov>).

<sup>5</sup> Pay-for-performance initiative based on participation in measurement effort, not on particular rate (See: Anthem Blue Cross and Blue Shield. Anthem Blue Cross and Blue Shield joins with nine hospitals and the American College of Cardiology to reward quality. [press release]. February 18, 2003. <[http://www.anthem.com/jsp/antiphona/bcbs/int\\_primary.jsp?content\\_id=PW\\_035971](http://www.anthem.com/jsp/antiphona/bcbs/int_primary.jsp?content_id=PW_035971)> Accessed August 2004)

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Decubitus ulcer (PSI 3)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> </ul>		<ul style="list-style-type: none"> <li>• Low rate (national rate 23.9 per 1,000 surgical discharges)</li> <li>• ICD-9 codes may be inadequate for risk adjustment and describing condition of interest</li> <li>• Underreported</li> </ul>
Failure to rescue (PSI 4)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> </ul>		<ul style="list-style-type: none"> <li>• Risk adjustment may not fully account for varying levels of severity for patients included in denominator population (QI software uses age, sex, DRG, and comorbidity categories)</li> <li>• Difficult for providers to identify and implement specific improvement interventions</li> </ul>
Foreign body left during procedure (PSI 5)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>		<ul style="list-style-type: none"> <li>• Rare event (national rate 0.07 per 1,000 discharges)</li> <li>• Small cell sizes may impact patient confidentiality, data at the provider level may have to be suppressed</li> <li>• Requires use of external cause-of-injury codes (E-codes)</li> </ul>

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Iatrogenic pneumothorax (PSI 6)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Private pay-for-performance initiative</li> </ul>	<ul style="list-style-type: none"> <li>• Very low rate (national rate 0.63 per 1,000 surgical discharges)</li> <li>• Small cell sizes may impact patient confidentiality, data at the provider level may have to be suppressed</li> </ul>
Selected infections due to medical care (PSI 7)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Private pay-for-performance initiative</li> </ul>	<ul style="list-style-type: none"> <li>• Low rate (national rate 1.5 per 1,000 surgical discharges)</li> <li>• Underreporting is a concern</li> </ul>



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Postoperative hip fracture (PSI 8)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>		<ul style="list-style-type: none"> <li>• Low rate (national rate 1.3 per 1,000 surgical discharges)</li> <li>• Uses of external cause-of-injury codes (E-codes) to exclude cases from the denominator population</li> <li>• Using ICD-9 codes to measure the concept of falls</li> </ul>
Postoperative hemorrhage or hematoma (PSI 9)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>• National (public) pay-for-performance demonstration project<sup>6</sup></li> <li>• Private pay-for-performance initiative</li> </ul>	<ul style="list-style-type: none"> <li>• Low rate (national rate 1.26 per 1,000 surgical discharges)</li> <li>• Risk adjustment may not fully account for varying levels of severity for patients included in denominator population (QI software uses age, sex, DRG, and comorbidity categories)</li> </ul>
Postoperative physiologic and metabolic derangements (PSI 10)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>• National (public) pay-for-performance demonstration project</li> </ul>	<ul style="list-style-type: none"> <li>• Very low rate (national rate 0.78 per 1,000 surgical discharges)</li> <li>• Small cell sizes may impact patient confidentiality, data at the provider level may have to be suppressed</li> <li>• Risk adjustment may not fully account for varying levels of severity for patients included in denominator population (QI software uses age, sex, DRG, and comorbidity categories)</li> <li>• Condition definition varies</li> <li>• Difficult for providers to identify and implement specific improvement interventions</li> </ul>

<sup>6</sup> Centers for Medicare & Medicaid Services. The Premier Hospital Quality Incentive Demonstration: Rewarding superior quality care. Centers for Medicare & Medicaid Services Fact Sheet, February 18, 2004. <<http://www.cms.hhs.gov/quality/hospital/PremierFactSheet.pdf>> Accessed February 2004.

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Postoperative respiratory failure (PSI 11)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>		<ul style="list-style-type: none"> <li>• Low rate (national rate 3.47 per 1,000 surgical discharges)</li> <li>• Risk adjustment may not fully account for varying levels of severity for patients included in denominator population (QI software uses age, sex, DRG, and comorbidity categories)</li> </ul>
Postoperative pulmonary embolism (PE) or deep vein thrombosis (DVT) (PSI 12)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>		<ul style="list-style-type: none"> <li>• Underreporting</li> </ul>
Postoperative sepsis (PSI 13)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Private pay-for-performance initiative</li> </ul>	<ul style="list-style-type: none"> <li>• Condition definition varies</li> </ul>

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Postoperative wound dehiscence (PSI 14)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>		<ul style="list-style-type: none"> <li>• Low rate (national rate 1.95 per 1,000 surgical discharges)</li> <li>• Risk adjustment may not fully account for varying levels of severity for patients included in denominator population (QI software uses age, sex, DRG, and comorbidity categories)</li> </ul>
Accidental puncture or laceration (PSI 15)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>		<ul style="list-style-type: none"> <li>• Low rate (national rate 2.45 per 1,000 surgical discharges)</li> <li>• Requires use of external cause-of-injury codes (E-codes)</li> <li>• Underreporting</li> </ul>
Transfusion reaction (PSI 16)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>		<ul style="list-style-type: none"> <li>• Extremely rare event (national rate 0.005 per 1,000 discharges)</li> <li>• Small cell sizes may impact patient confidentiality, data at the provider level may have to be suppressed</li> <li>• Stratification suggested, unable to risk adjust due to low rate of occurrence</li> <li>• Requires use of external cause-of-injury codes (E-codes)</li> </ul>

AHRQ Quality Indicator <sup>1</sup>	Current uses		Considerations for hospital-level reporting
	Quality improvement and national surveillance	Public reporting and pay for performance	
Birth trauma (PSI 17)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>		<ul style="list-style-type: none"> <li>• Condition definition varies</li> <li>• Risk adjustment may not fully account for varying levels of severity for patients included in denominator population (QI software uses sex)</li> </ul>
Obstetric trauma – vaginal with instrument (PSI 18)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Private pay-for-performance initiative</li> </ul>	<ul style="list-style-type: none"> <li>• Risk adjustment may not fully account for varying levels of severity for patients included in denominator population (QI software uses age)</li> </ul>
Obstetric trauma – vaginal without instrument (PSI 19)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Private pay-for-performance initiative</li> </ul>	<ul style="list-style-type: none"> <li>• Risk adjustment may not fully account for varying levels of severity for patients included in denominator population (QI software uses age)</li> </ul>

AHRQ Quality Indicator <sup>1</sup>	Current uses		Considerations for hospital-level reporting
	Quality improvement and national surveillance	Public reporting and pay for performance	
Obstetric trauma – cesarean section (PSI 20)	<ul style="list-style-type: none"> <li>• National quality reports</li> <li>• State agencies – safety monitoring, confidential/internal analyses</li> <li>• State and regional hospital associations – member only reports</li> <li>• Internal hospital quality improvement</li> </ul>	<ul style="list-style-type: none"> <li>• Private pay-for-performance initiative</li> </ul>	<ul style="list-style-type: none"> <li>• Risk adjustment may not fully account for varying levels of severity for patients included in denominator population (QI software uses age)</li> </ul>