



# KENTUCKY RISING STARS ENCYCLOPEDIA OF MEASURES



KENTUCKY HOSPITAL ASSOCIATION - KENTUCKY HOSPITAL RESEARCH AND EDUCATION FOUNDATION

# Encyclopedia of Measures (EOM)

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## Measure Applicability

<b>Mortality Measures Group</b>	
Death among Surgical inpatients with serious treatable complications rate (AHRQ PSI-04)	Hospitals that <b>perform inpatient surgery</b>
Coronary Artery Bypass Graft (CABG) Mortality Rate (AHRQ IQI-12)	Hospitals that perform CABG surgery
Acute Myocardial Infarction (AMI) Mortality Rate (AHRQ IQI-15)	All hospitals
Heart Failure Mortality Rate (AHRQ IQI-16)	All hospitals
Acute Stroke Mortality Rate (AHRQ IQI-17)	All hospitals
Pneumonia Mortality Rate (AHRQ IQI-20)	All hospitals
<b>Safety of Care (SOC) Group</b>	
<b>Catheter-Associated Urinary Tract Infection (CAUTI)</b>	
<a href="#">SIR – All units excluding NICUs</a>	Hospitals <b>reporting to NHSN</b>
<a href="#">SIR – All ICUs excluding NICUs</a>	Hospitals <b>with an ICU and reporting to NHSN</b>
<a href="#">Rate– All units excluding NICUs</a>	All hospitals
<a href="#">Rate – All ICUs excluding NICUs</a>	Hospitals <b>with an ICU</b>
<a href="#">Utilization – All units excluding NICUs</a>	All hospitals
<a href="#">Utilization – All ICUs excluding NICUs</a>	Hospitals <b>with an ICU</b>
<b>Central Line-Associated Bloodstream Infections (CLABSI)</b>	
<a href="#">SIR – All units</a>	Hospitals that <b>place and/or manage central lines and reporting to NHSN</b>
<a href="#">SIR – All ICUs</a>	Hospitals that <b>place and/or manage central lines, with an ICU and reporting to NHSN</b>
<a href="#">Rate – All units</a>	Hospitals that <b>place and/or manage central lines</b>
<a href="#">Rate – All ICUs</a>	Hospitals that <b>place and/or manage central lines, with an ICU</b>
<a href="#">Utilization – All units</a>	Hospitals that <b>place and/or manage central lines</b>
<a href="#">Utilization – All ICUs</a>	Hospitals that <b>place and/or manage central lines, with an ICU</b>
<b>Clostridioides difficile (CDI)</b>	
<a href="#">SIR – All units</a>	Hospitals <b>reporting to NHSN</b>
<a href="#">Rate – All units</a>	All hospitals

<b>Methicillin-resistant Staphylococcus aureus (MRSA)</b>	
<a href="#">MRSA SIR</a>	Hospitals <b>reporting to NHSN</b>
<a href="#">MRSA Rate</a>	All hospitals
<b>Surgical Site infections (SSI)</b>	
<a href="#">SSI SIR – colon surgeries</a>	Hospitals <b>performing colon surgeries and reporting to NHSN</b>
<a href="#">SSI SIR – abdominal hysterectomies</a>	Hospitals <b>performing abdominal hysterectomies and reporting to NHSN</b>
<a href="#">SSI rate – colon surgeries</a>	Hospitals <b>performing colon surgeries</b>
<a href="#">SSI rate – abdominal hysterectomies</a>	Hospitals <b>performing abdominal hysterectomies</b>
<b>PSI 90 Composite Component Measures</b>	
<a href="#">Pressure Ulcer Rate</a> (AHRQ PSI-03)	All hospitals (preferred measure)
<a href="#">Postoperative Respiratory Failure Rate</a> (AHRQ PSI-11)	Hospitals that <b>perform inpatient surgery</b>
<a href="#">Perioperative Pulmonary embolism or Deep Vein Thrombosis Rate</a> (AHRQ PSI-12)	Hospitals that <b>perform inpatient surgery</b>
<a href="#">Postoperative Sepsis Rate</a> (AHRQ PSI-13)	Hospitals <b>that perform inpatient surgeries</b>
<a href="#">Iatrogenic Pneumothorax Rate</a> (AHRQ PSI-06)	
<a href="#">In Hospital Fall with Hip Fracture Rate</a> (AHRQ PSI-08)	
<a href="#">Perioperative Hemorrhage or Hematoma Rate</a> (AHRQ PSI-09)	Hospitals that <b>perform inpatient surgery</b>
<a href="#">Postoperative Acute Kidney Injury Requiring Dialysis Rate</a> (AHRQ PSI-10)	Hospitals that <b>perform inpatient surgery</b>
<a href="#">Postoperative Wound Dehiscence Rate</a> (AHRQ PSI-14)	Hospitals that <b>perform inpatient surgery</b>
<a href="#">Unrecognized Abdominopelvic Accidental Puncture or Laceration Rate</a> (AHRQ PSI-15)	Hospitals that <b>perform inpatient surgery</b>
<b>Readmissions Group Measures</b>	
<a href="#">All-cause, 30-day readmissions</a>	All hospitals (preferred measure)
<a href="#">All-cause, 30-day readmissions, Medicare FFS</a>	

Green are measures where all hospitals collect regardless of services.

## Death Among Surgical Inpatients with Serious Treatable Complications Rate

Mortality Measure Group: Surgery Complications Mortality Rate (AHRQ PSI-04)	
In-hospital deaths per 1,000 surgical discharges, among patients ages 18 through 89 years or obstetric patients, with serious treatable complications (deep vein thrombosis/ pulmonary embolism, pneumonia, sepsis, shock/cardiac arrest, or gastrointestinal hemorrhage/acute ulcer). Includes metrics for the number of discharges for each type of complication. Excludes cases transferred to an acute care facility and cases in hospice care at admission. <sup>1</sup>	
Measure type	Outcome
Numerator	Number of inpatient deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.
Denominator	Surgical discharges <sup>2</sup> for patients ages 18 through 89 years or MDC 14 (pregnancy, childbirth and puerperium) with any listed ICD-10-PCS procedure codes for an operating room procedure <sup>3</sup> and all of the following: <ul style="list-style-type: none"> <li>• Admission type of elective (ATYPE=3) or any admission type in which the earliest ICD-10-PCS code for an operating room procedure occurs within two days of admission</li> <li>• Meet the inclusion and exclusion criteria for shock or cardiac arrest, sepsis, pneumonia, DVT/PE, or gastrointestinal hemorrhage or acute ulcer</li> </ul>
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ PSI-04</a> (See Individual Measure Technical Specifications)
Data source (s)	Administrative claims data
Data Entry/Transfer	For hospitals who have signed a Data Use Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative claims data, this data element will be extracted and uploaded to KQC.
Baseline period	Preferred: Calendar year 2019 Alternate: First three months of monitoring data
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	234: MORT-1 Surgery Complications Mortality PSO-04

<sup>1</sup> Extracted from AHRQ: [https://www.qualityindicators.ahrq.gov/Modules/PSI\\_TechSpec\\_ICD10\\_v2020.aspx](https://www.qualityindicators.ahrq.gov/Modules/PSI_TechSpec_ICD10_v2020.aspx)

<sup>2</sup> [Appendix E: Surgical Discharge MS-DRGs](#)

<sup>3</sup> [Appendix A: Operating Room Procedure Codes](#)

## Coronary Artery Bypass Graft (CABG) Mortality Rate

Mortality Measure Group: CABG Mortality Rate (AHRQ IQI-12)	
In-hospital deaths per 1,000 discharges with coronary artery bypass graft (CABG), ages 40 years and older. Excludes obstetric discharges and transfers to another hospital. <sup>4</sup>	
Measure type	Outcome
Numerator	Number of deaths (DISP=20) cases meeting the inclusion and exclusion rules for the denominator.
Denominator	Discharges, for patient ages 40 years and older with any-listed ICD-10-PCS procedure code for CABG. Excluded cases: <ul style="list-style-type: none"> <li>• Transferring to another short-term hospital (DISP=2)</li> <li>• MDC 14 (pregnancy, childbirth and puerperium)</li> <li>• With an ungroupable DRG (DRG=999)</li> <li>• With missing discharge disposition (DISP=missing), gender (SEX=missing), AGE=missing), quarter (DQTR=missing), year (YEAR=year) or principal diagnosis (DX1=missing)</li> </ul>
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ IQI-12</a> (See Individual Measure Technical Specifications)
Data source (s)	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Use Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative claims data, this data element will be extracted and uploaded to KQC.
Baseline period	Preferred: Calendar year 2019 Alternate: First three months of monitoring data
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	233: MORT-2 CABG Mortality IQI-12

<sup>4</sup> Extracted from AHRQ: [https://www.qualityindicators.ahrq.gov/Modules/iqi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/iqi_resources.aspx)

## Acute Myocardial Infarction Mortality Rate

Mortality Measure Group: AMI Mortality Rate (AHRQ IQI-15)	
In-hospital deaths per 1,000 hospital discharges with a principal diagnosis of acute myocardial infarction (AMI) for patients ages 18 years and older. Excludes cases in hospice care at admission, obstetric discharges, and transfers to another hospital. <sup>5</sup>	
Measure type	Outcome
Numerator	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.
Denominator	Discharges, for patients ages 18 years and older, with a principal ICD-10-CM diagnosis code for AMI. Exclude cases: <ul style="list-style-type: none"> <li>• transferring to another short-term hospital (DISP=2)</li> <li>• cases in hospice care at admission (PointOfOriginUB04=F)</li> <li>• MDC 14 (pregnancy, childbirth, and puerperium)</li> <li>• with an ungroupable DRG (DRG=999)</li> <li>• with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)</li> </ul>
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ IQI-15</a> (See Individual Measure Technical Specifications)
Data source (s)	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Use Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative claims data, this data element will be extracted and uploaded to KQC.
Baseline period	Preferred: Calendar year 2019 Alternate: First 3 months of monitoring data
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	232: MORT-3 AMI Mortality IQI-15

<sup>5</sup> Extracted from AHRQ: [https://www.qualityindicators.ahrq.gov/Modules/iqi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/iqi_resources.aspx)

## Heart Failure Mortality Rate

Mortality Measure Group: Heart Failure Mortality Rate (AHRQ IQI-16)	
In-hospital deaths per 1,000 hospital discharges with a principal diagnosis of heart failure for patients ages 18 years and older. Excludes discharges with a procedure for heart transplants, cases in hospice care at admission, obstetric discharges, transfers to another hospital. <sup>6</sup>	
Measure type	Outcome
Numerator	Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.
Denominator	Discharges, for patients ages 18 years and older, with a principal ICD-10-CM diagnosis code for heart failure. Exclude cases: <ul style="list-style-type: none"> <li>• any procedure code for heart transplant</li> <li>• transferring to another short-term hospital (DISP=2)</li> <li>• cases in hospice care at admission (PointOfOriginUB04=F)</li> <li>• MDC 14 (pregnancy, childbirth, and puerperium)</li> <li>• with an ungroupable DRG (DRG=999)</li> <li>• with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)</li> </ul>
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ IQI-16</a> (See Individual Measure Technical Specifications)
Data source (s)	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Use Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative claims data, this data element will be extracted and uploaded to KQC.
Baseline period	Preferred: Calendar year 2019 Alternate: First 3 months of monitoring data
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	231: MORT-4 HF Mortality IQI-16

<sup>6</sup> Extracted from AHRQ: [https://www.qualityindicators.ahrq.gov/Modules/igi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/igi_resources.aspx)



## Acute Stroke Mortality Rate

Mortality Measure Group: Acute Stroke Mortality Rate (AHRQ IQI-17)	
In-hospital deaths per 1,000 hospital discharges with a principal diagnosis of acute stroke for patients ages 18 years and older. Includes metrics for discharges grouped by type of stroke. Excludes obstetric discharges, cases in hospice care at admission, and transfers to another hospital. <sup>7</sup>	
Measure type	Outcome
Numerator	Overall Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.
Denominator	Discharges, for patients ages 18 years and older, with a principal ICD-10-CM diagnosis code for subarachnoid hemorrhage or intracerebral hemorrhage or ischemic stroke. Exclude cases: <ul style="list-style-type: none"> <li>• transferring to another short-term hospital (DISP=2)</li> <li>• cases in hospice care at admission (PointOfOriginUB04=F)</li> <li>• MDC 14 (pregnancy, childbirth, and puerperium)</li> <li>• with an ungroupable DRG (DRG=999)</li> <li>• with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)</li> </ul>
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ IQI-17</a> (See Individual Measure Technical Specifications)
Data source (s)	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Use Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative claims data, this data element will be extracted and uploaded to KQC.
Baseline period	Preferred: Calendar year 2019 Alternate: First 3 months of monitoring data
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	230: MORT-5 Acute Stroke Mortality IQI-16

<sup>7</sup> Extracted from AHRQ: [https://www.qualityindicators.ahrq.gov/Modules/igi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/igi_resources.aspx)

## Pneumonia Mortality Rate

Mortality Measure Group: Pneumonia Mortality Rate (AHRQ IQI-20)	
In-hospital deaths per 1,000 hospital discharges with principal diagnosis of pneumonia for patients ages 18 years and older. Excludes obstetric discharges, cases in hospice care at admission, and transfers to another hospital. <sup>8</sup>	
Measure type	Outcome
Numerator	Overall Number of deaths (DISP=20) among cases meeting the inclusion and exclusion rules for the denominator.
Denominator	Discharges, for patients ages 18 years and older, with a principal ICD-10-CM diagnosis code pneumonia. Exclude cases: <ul style="list-style-type: none"> <li>• transferring to another short-term hospital (DISP=2)</li> <li>• cases in hospice care at admission (PointOfOriginUB04=F)</li> <li>• MDC 14 (pregnancy, childbirth, and puerperium)</li> <li>• with an ungroupable DRG (DRG=999)</li> <li>• with missing discharge disposition (DISP=missing), gender (SEX=missing), age (AGE=missing), quarter (DQTR=missing), year (YEAR=missing) or principal diagnosis (DX1=missing)</li> </ul>
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ IQI-20</a> (See Individual Measure Technical Specifications)
Data source (s)	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Use Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative claims data, this data element will be extracted and uploaded to KQC.
Baseline period	Preferred: Calendar year 2019 Alternate: First 3 months of monitoring data
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	230: MORT-5 Acute Stroke Mortality IQI-16

<sup>8</sup> Extracted from AHRQ: [https://www.qualityindicators.ahrq.gov/Modules/iqi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/iqi_resources.aspx)

## Catheter-Associated Urinary Tract Infection (CAUTI) Standardized Infection Ratio (SIR)

SOC Measure Group: CAUTI: SIR – NHSN Reporting Facilities ONLY – NQF 0138	
Measure type	Outcome
Numerator	Number of observed infections
Denominator	Number of predicted infections
SIR calculation	Numerator/Denominator
Specifications/definitions	<a href="#">CDC NHSN</a> NQF: <a href="#">National Quality Forum (NQF) 0138</a> Additional resources: <a href="#">CDC</a>
Data source (s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the KHA Quality group. NHSN-conferring rights required.
Data entry/transfer	<b>NHSN calculates – No work needed if rights conferred</b> NHSN –conferring rights to the KHA Quality group highly recommended
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2015 and September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	135: CAUTI-1a CAUTI SIR ICU and other inpatient units 136: CAUTI-1b CAUTI SIR ICU excluding NICUs

These measures utilize the CDC NHSN definition and specifications that apply at the discharge date of the patient.

For hospitals reporting this measure in NHSN and conferring rights to the KHA Quality group, these data elements will be extracted from NHSN and uploaded to KQC. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** will not report these measures.

## Catheter-Associated Urinary Tract Infection (CAUTI) Rate

SOC Measure Group: CAUTI: Rate	
Measure type	Outcome
Numerator	Total number of observed healthcare-associated CAUTI among patients in bedded inpatient care locations
Denominator	Total number of indwelling urinary catheter days for each location under surveillance for CAUTI during the data period
Rate Calculation	$(\text{Numerator}/\text{Denominator}) \times 1000$
Specifications/definitions	<a href="#">CDC NHSN</a> Additional resources: <a href="#">CDC</a>
Data source (s)	NHSN-conferring rights recommended
Data entry/transfer	NHSN – conferring rights to the KHA Quality group highly recommended If not possible to enter in NHSN, enter in KQC
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2015 and September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	20: CAUTI-2a Catheter-Associated Urinary Tract Infections Rate - All Tracked Units (CDC NHSN) 21: CAUTI-2b Catheter-Associated Urinary Tract Infections Rate in ICU (CDC NHSN)

This measure utilizes the CDC NHSN definition and specifications that apply at the discharge date of the patient.

For hospitals reporting this measure in NHSN and conferring rights to the KHA Quality group, these data elements will be extracted from NHSN and uploaded to KQC. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** must report the numerators and denominators for ICUs excluding NICUs **and** also for ICUs excluding NICUs + Other Inpatient Units, separately, following the CDC specifications to define CAUTI. If a hospital does not have an ICU, report for all other hospital inpatient units for measure 20 – CAUTI-2a.

## Urinary Catheter Utilization Ratio

SOC Measure Group: CAUTI: Utilization Ratio	
Measure type	Process
Numerator	Total number of indwelling urinary catheter days for bedded inpatient care locations under surveillance (excluding patients in Level II or III NICUs)
Denominator	Total number of patient days for bedded inpatient care locations under surveillance (excluding patients in Level II or III NICUs)
Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Specifications/definitions	<a href="#">CDC NHSN</a> Additional resources: <a href="#">CDC</a>
Data source (s)	NHSN-conferring rights recommended
Data entry/transfer	NHSN – conferring rights to the KHA Quality group highly recommended If not possible to enter in NHSN, enter in KQC
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2015 and September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	22: CAUTI-3a Urinary Catheter Utilization Ratio 181: CAUTI-3b Urinary Catheter Utilization Ratio - ICU Only

These measures utilize the CDC NHSN definition and specifications that apply at the discharge date of the patient.

For hospitals reporting this measure in NHSN and conferring rights to the KHA Quality group, these data elements will be extracted from NHSN and uploaded to KQC.

Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data**, must report the numerators and denominators for ICUs excluding NICUs **and** also for ICUs excluding NICUs + Other Inpatient Units, separately, following the CDC specifications to define CAUTI. If a hospital does not have an ICU, report for all other hospital inpatient units for measure 22 - CAUTI-3a.

## Central Line-Associated Blood Stream Infection (CLABSI) Standardized Infection Ratio (SIR)

SOC Measure Group: CLABSI: SIR - NHSN Reporting Facilities ONLY – NQF 0139	
Measure type	Outcome
Numerator	Number of observed infections
Denominator	Number of predicted infections
SIR calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Specifications/definitions	<a href="#">CDC NHSN</a> NQF information: <a href="#">NQF 0139</a> Additional resources: <a href="#">CDC</a>
Data source (s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the KHA Quality group. NHSN-conferring rights required.
Data entry/transfer	<b>NHSN calculates – No work needed if rights conferred</b> NHSN – conferring rights to the KHA Quality group highly recommended
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2015 and September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	138: CLABSI-1a CLABSI SIR ICU and other inpatient units 137: CLABSI-1b CLABSI SIR ICU excluding NICUs

These measures utilize the CDC NHSN definition and specifications that apply at the discharge date of the patient.

For hospitals reporting this measure in NHSN and conferring rights to the KHA Quality group, these data elements will be extracted from NHSN and uploaded to KQC. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** will not report these measures.

## Central Line-Associated Blood Stream Infection (CLABSI) Rate

SOC Measure Group: CLABSI: Rates	
Measure type	Outcome
Numerator	Total number of observed healthcare-associated CLABSI among patients in bedded inpatient care locations
Denominator	Total number of central line days for each location under surveillance for CLABSI during the data period
Rate Calculation	$(\text{Numerator}/\text{Denominator}) \times 1000$
Specifications/definitions	<a href="#">CDC NHSN</a> Additional resources: <a href="#">CDC</a>
Data source (s)	NHSN-conferring rights recommended
Data entry/transfer	NHSN – conferring rights to the KHA Quality group highly recommended If not possible to enter in NHSN, enter in KQC
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2015 and September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	24: CLABSI-2a CLABSI Rate - All Units (by Device Days) (CDC NHSN) 25: CLABSI-2b CLABSI Rate - ICU (by Device Days) (CDC NHSN)

These measures utilize the CDC NHSN definition and specifications that apply at the discharge date of the patient.

For hospitals reporting these measures in NHSN and conferring rights to the KHA Quality group, these data elements will be extracted from NHSN and uploaded to KQC.

Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data**, must report the numerators and denominators for All Inpatient Units **and** also for All ICUs separately, following the CDC specifications to define CLABSI. . If a hospital does not have an ICU, report for all other hospital inpatient units for measure 24 – CLABSI-2a.

## Central Line Utilization Ratio

SOC Measure Group: CLABSI: Utilization Ratio	
Measure type	Process
Numerator	Total number of central line days for bedded inpatient care locations under surveillance
Denominator	Total number of patient days for bedded inpatient care locations under surveillance
Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Specifications/definitions	<a href="#">CDC NHSN</a> Additional resources: <a href="#">CDC</a>
Data source (s)	NHSN-conferring rights recommended
Data entry/transfer	NHSN – conferring rights to the KHA Quality group highly recommended If not possible to enter in NHSN, enter in KQC
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2015 and September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	26: CLABSI-3a Central Line Utilization Ratio 180: CLABSI-3b Central Line Utilization Ratio - ICU only

These measures utilize the CDC NHSN definition and specifications that apply at the discharge date of the patient.

For hospitals reporting these measures in NHSN and conferring rights to the KHA Quality group, these data elements will be extracted from NHSN and uploaded to KQC.

Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** must report the numerators and denominators for All Inpatient Units **and** also for All ICUs separately, following the CDC specifications to define CLABSI. If a hospital does not have an ICU, report for all other hospital inpatient units for measure 26 - CLABSI-3a.



## *Clostridioides difficile* Standardized Infection Ratio (SIR)

SOC Measure Group: CDI: (SIR) – NHSN Reporting Facilities ONLY NQF 1717	
Measure type	Outcome
Numerator	Total number of observed hospital-onset <i>C. difficile</i> lab identified events among all inpatients facility-wide, excluding well-baby nurseries and NICUs
Denominator	Predicted cases of patients with <i>C. difficile</i>
SIR Calculation	Numerator/Denominator
Specifications/definitions	<a href="#">CDC NHSN</a>
Data source (s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the KHA Quality group. NHSN-conferring rights required.
Data entry/transfer	<b>NHSN calculates – No work needed if rights conferred</b> NHSN – conferring rights to KHA Quality group highly recommended
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3 month consecutive period between January 2015 and September 2016
Monitoring period	Reported quarterly, beginning Oct 2016
Note	For those not conferring NHSN rights to KHA Quality Group, data should be entered after the end of the quarter from the NHSN data source
KQC Measure ID(s)	149: CDI-1a <i>C. difficile</i> SIR Facility Wide

This measure utilizes the CDC NHSN definition and specifications that apply at the discharge date of the patient.

For hospitals reporting this measure in NHSN and conferring rights to the KHA Quality group, these data elements will be extracted from NHSN and uploaded to KQC. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** will not report these measures.

The Centers for Disease Control and Prevention (CDC) provides extensive *C. difficile* resources for patients, clinicians, facilities and settings. These resources are available online at the following links: [http://www.cdc.gov/hai/organisms/cdiff/Cdiff\\_settings.html](http://www.cdc.gov/hai/organisms/cdiff/Cdiff_settings.html) <http://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html>

## *Clostridioides difficile* Rate

SOC Measure Group: CDI: Rate	
Measure type	Outcome
Numerator	Total number of observed hospital-onset <i>C. difficile</i> lab identified events among all inpatients facility-wide, excluding well-baby nurseries and NICUs
Denominator	Patient days (facility-wide)
Rate calculation	(Numerator/Denominator) X 10,000
Specifications/definitions	<a href="#">CDC NHSN</a>
Data source (s)	NHSN-conferring rights recommended
Data entry/transfer	NHSN – conferring rights to the KHA Quality group highly recommended If not possible to enter in NHSN, enter in KQC
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2015 and September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	148: CDI-1b <i>C. difficile</i> Rate Facility Wide

This measure utilizes the CDC NHSN definition and specifications that apply at the discharge date of the patient.

For hospitals reporting this measure in NHSN and conferring rights to the KHA Quality group, these data elements will be extracted from NHSN and uploaded to KQC.

Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data**, must report the numerators and denominators, following the CDC specifications to define *c. Difficile*.

The Centers for Disease Control and Prevention (CDC) provides extensive *C. difficile* resources for patients, clinicians, facilities and settings. These resources are available online at the following links:

[http://www.cdc.gov/hai/organisms/cdiff/Cdiff\\_settings.html](http://www.cdc.gov/hai/organisms/cdiff/Cdiff_settings.html) <http://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html>

## MRSA Bacteremia - Standardized Infection Ratio (SIR)

SOC Measure Group: MRSA: SIR – NHSN Reporting Facilities ONLY	
Measure type	Outcome
Numerator	Number MRSA LabID Events in inpatient location >3 days after admission to the facility
Denominator	Predicted cases of patients with MRSA bacteremia
SIR Calculation	Numerator/Denominator
Specifications/definitions	<a href="#">CDC NHSN</a>
Data source (s)	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the KHA Quality group. NHSN-conferring rights required.
Data entry/transfer	<b>NHSN calculates – No work needed if rights conferred</b> NHSN – conferring rights to the KHA Quality group highly recommended
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2015 and September 2016
Monitoring period	Quarterly, beginning Oct 2016
Note	For those not conferring NHSN rights to AHA, data should be entered after the end of the quarter from the NHSN data source
KQC Measure ID(s)	198: MRSA-1 Standardized Infection Ratio (SIR) – MRSA Bacteremia

This measure utilizes the CDC NHSN definition and specifications that apply at the discharge date of the patient.

For hospitals reporting this measure in NHSN and conferring rights to the KHA Quality group, these data elements will be extracted from NHSN and uploaded to KQC. Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** will not report these measures.

The Centers for Disease Control and Prevention (CDC) provides extensive *MRSA* resources for patients, clinicians, facilities and settings. These resources are available online at the following links:

<http://www.cdc.gov/HAI/organisms/mrsa-infection.html>

<http://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html>

## Hospital-onset MRSA Bacteremia Events

SOC Measure Group: MRSA: Rate	
Measure type	Outcome
Numerator	MRSA bacteremia events
Denominator	Patient days
Calculation	$(\text{Numerator}/\text{Denominator}) \times 1,000$
Specifications/definitions	<a href="#">CDC NHSN</a>
Data source (s)	NHSN-conferring rights recommended
Data entry/transfer	NHSN – conferring rights to the KHA Quality group highly recommended If not possible to enter in NHSN, enter in KQC
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2015 and September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	200: MRSA-2 Hospital-onset MRSA bacteremia events

This measure utilizes the CDC NHSN definition and specifications that apply at the discharge date of the patient.

For hospitals reporting this measure in NHSN and conferring rights to the KHA Quality group, these data elements will be extracted from NHSN and uploaded to KQC.

Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** must report the numerators and denominators, following the CDC specifications to *define MRSA bacteremia events*.

The Centers for Disease Control and Prevention (CDC) provides extensive *MRSA* resources for patients, clinicians, facilities and settings. These resources are available online at the following links:

<http://www.cdc.gov/HAI/organisms/mrsa-infection.html> <http://www.cdc.gov/nhsn/acute-care-hospital/cdiff-mrsa/index.html>

## Surgical Site Infection (SSI) Standardized Infection Ratio (SIR)

SSI: SIR for SSI Measures – NHSN Reporting Facilities ONLY (NQF 0753)	
Surgical Site Infection (SSI) Standardized Infection Ratio (SIR) – separately for each procedure <ul style="list-style-type: none"> <li>• Measure 1a: Colon surgeries</li> <li>• Measure 1b: Abdominal hysterectomies</li> </ul>	
Measure type	Outcome
Numerator	Number of observed infections
Denominator	Number of predicted infections
Calculation	Numerator/Denominator
Specifications/definitions	<a href="#">CDC NHSN</a> Additional resources: <a href="#">CDC</a>
Data source(s)	<b>NHSN calculates – No work needed if rights conferred</b> NHSN –conferring rights to the KHA Quality group highly recommended
Data entry/transfer	Hospitals not reporting to NHSN will not report this measure. Data elements to calculate this ratio will be extracted from NHSN for hospitals that confer rights to the KHA Quality group. NHSN-conferring rights required.
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2015 and September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	140: SSI-1a Colon Surgery SIR 141: SSI-1b Abdominal Hysterectomy Surgery SIR

These measures utilize the CDC NHSN definition and specifications that apply at the discharge date of the patient.

## Surgical Site Infection (SSI) Rate

SSI: Rate	
Surgical Site Infection (SSI) Rate – separately for each procedure <ul style="list-style-type: none"> <li>• Measure 1a: Colon surgeries</li> <li>• Measure 1b: Abdominal hysterectomies</li> </ul>	
Numerator	Total number of surgical site infections based on CDC NHSN definition
Denominator	All patients having any of the procedures included in the selected NHSN operative procedure category(s).
Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Specifications/definitions	<a href="#">CDC NHSN</a> Additional resources: <a href="#">CDC</a>
Data source (s)	NHSN-conferring rights recommended
Data entry/transfer	NHSN – conferring rights to the KHA Quality group highly recommended If not possible to enter in NHSN, enter in KQC
Baseline period	Preferred: Calendar year 2015 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2015 and September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	147: SSI-2a Colon Surgery Surgical Site Infection Rate 146: SSI-2b Abdominal Hysterectomy Surgical Site Infection Rate

These measures utilize the CDC NHSN definition and specifications that apply at the discharge date of the patient.

For hospitals reporting this measure in NHSN and conferring rights to the KHA Quality group, these data elements will be extracted from NHSN and uploaded to KQC.

Hospitals that **do not report to NHSN**, or hospitals that have **NOT conferred rights to their NHSN data** must report the numerators and denominators, following the CDC specifications for SSI.

## Pressure Ulcer Rate, Stage 3+

SOC Measure Group: Pressure Ulcer/Injury: Rate – AHRQ PSI 13 (Component of PSI-90)	
Stage III or IV pressure ulcers or unstageable (secondary diagnosis) per 1,000 discharges among surgical or medical patients ages 18 years and older. Excludes stays less than 3 days; cases with a principal stage III or IV (or unstageable) or deep tissue injury pressure ulcer diagnosis; cases with a secondary diagnosis of stage III or IV pressure ulcer (or unstageable) or deep tissue injury that is present on admission; obstetric cases; severe burns; exfoliative skin disorders. <sup>9</sup>	
Measure type	Outcome
Numerator	Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary diagnosis codes for pressure ulcer and any secondary diagnosis codes for pressure ulcer stage III or IV (or unstageable)
Denominator	Surgical or medical discharges, for patients ages 18 years and older. Surgical and medical discharges are defined by specific DRG or MSDRG codes <sup>10</sup>
Calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ PSI 03</a> (See Individual Measure Technical Specifications)
Data source	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Use Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative data, this data element will be extracted and uploaded to KQC
Baseline period	Preferred: Calendar year 2019
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	52: PrU-1 Decubitus Ulcer - Adults (AHRQ PSI-3)

These data elements shall be submitted by all hospitals. Data can be collected through incident reporting, hospital discharge or administrative data.

The AHRQ has developed a comprehensive resource for measuring pressure ulcer rates and prevention practices. The resource is available online at the following link:

<http://www.ahrq.gov/professionals/systems/hospital/pressureulcertoolkit/putool5.html>

<sup>9</sup> Extracted from AHRQ Patient Safety Indicators: [https://www.qualityindicators.ahrq.gov/Modules/psi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx)

<sup>10</sup> The measure specifications exclude stays less than 3 days. While CAHs are required to maintain an annual average length of stay of 96 hours or less (<https://www.cms.gov/Outreach-and-Education/Medicare-Learning-Network-MLN/MLNProducts/downloads/CritAccessHospfctshst.pdf>), CAHs are encouraged to use the AHRQ PSI specifications to track pressure ulcers for appropriate inpatient stays in their facilities, even if the inpatient stay is less than 3 days.

## Postoperative Sepsis Rate

SOC Measure Group: Post-op Rate– AHRQ PSI-13 (Component of PSI-90)	
Postoperative sepsis cases (secondary diagnosis) per 1,000 elective surgical discharges for patients ages 18 years and older	
Measure type	Outcome
Numerator	Discharges among cases meeting the inclusion and exclusion rules for the denominator, with any AHRQ designated secondary ICD-10 diagnosis codes for sepsis. <sup>11</sup>
Denominator	Elective surgical discharges for patients ages 18 years and older, with any listed ICD-10-PCS procedure codes for an operating room procedure. <sup>12</sup>
Calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ PSI 13</a> (See Individual Measure Technical Specifications)
Data source(s)	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Sharing Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative data, these data elements will be extracted and uploaded to KQC.
Baseline period	Preferred: Calendar year 2019
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	57: SEPSIS-1a Postoperative Sepsis (AHRQ – PSI-13)

<sup>11</sup> Extracted from AHRQ: [https://www.qualityindicators.ahrq.gov/Modules/psi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx)

<sup>12</sup> [Appendix A: Operating Room Procedure Codes](#)



## Peri-Operative Pulmonary Embolism or Venous Thrombosis (VTE) Rate

SOC Measure Group: Post-OP PE/DVT: Rate AHRQ PSI-12 (Component of PSI-90)	
Perioperative pulmonary embolism or proximal deep vein thrombosis (secondary diagnosis) per 1,000 surgical discharges for patients ages 18 years and older. Excludes discharges with a principal diagnosis of pulmonary embolism or proximal deep vein thrombosis; with a secondary diagnosis of pulmonary embolism or proximal deep vein thrombosis present on admission; in which interruption of the vena cava or a pulmonary arterial thrombectomy occurs before or on the same day as the first operating room procedure; with extracorporeal membrane oxygenation; with acute brain or spinal injury present on admission; and obstetric cases. <sup>13</sup>	
Measure type	Outcome
Numerator	Number of surgical patients that develop a post-operative PE or DVT
Denominator	All surgical discharges age 18 and older defined by specific DRGs <sup>14</sup> or MS-DRGs and a procedure code for an operating room procedure <sup>15</sup> .
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ PSI 12</a> .
Data source	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Sharing Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative data, this data element will be extracted and uploaded to KQC
Baseline period	Preferred: Calendar year 2019
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	46: VTE-1 Post-op PE or DVT (All Adults) (AHRQ PSI-12)

<sup>13</sup> Extracted from AHRQ Patient Safety Indicators: [https://www.qualityindicators.ahrq.gov/Modules/psi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx)

<sup>14</sup> [Appendix E: Surgical Discharge MS-DRGs](#)

<sup>15</sup> [Appendix A: Operating Room Procedure Codes](#)

## Postoperative Respiratory Failure Rate

SOC Measure Group: Postoperative Respiratory Failure Rate AHRQ PSI-12 (Component of PSI-90)	
<p>Postoperative respiratory failure (secondary diagnosis), prolonged mechanical ventilation, or reintubation cases per 1,000 elective surgical discharges for patients ages 18 years and older. Excludes cases with principal diagnosis for acute respiratory failure; cases with secondary diagnosis for acute respiratory failure present on admission; cases in which tracheostomy is the only operating room procedure or in which tracheostomy occurs before the first operating room procedure; cases with neuromuscular disorders; cases with laryngeal, oropharyngeal or craniofacial surgery involving significant risk of airway compromise; esophageal resection, lung cancer, lung transplant or degenerative neurological disorders; cases with respiratory or circulatory diseases; and obstetric discharges.<sup>16</sup></p>	
Measure type	Outcome
Numerator	<p>Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with either:</p> <ul style="list-style-type: none"> <li>• any secondary ICD-10-CM diagnosis code for acute respiratory failure;</li> <li>• any secondary ICD-10-PCS procedure codes for a mechanical ventilation for 96 consecutive hours or more (PR9672P*) that occurs zero or more days after the first major operating room procedure code (based on days from admission to procedure);</li> <li>• any secondary ICD-10-PCS procedure codes for a mechanical ventilation for less than 96 consecutive hours (or undetermined) that occurs two or more days after the first major operating room procedure code (based on days from admission to procedure);</li> <li>• any secondary ICD-10-PCS procedure codes for a reintubation that occurs one or more days after the first major operating room procedure code (based on days from admission to procedure)</li> </ul>
Denominator	<p>Elective surgical discharges (Appendix E)<sup>17</sup> for patients ages 18 years and older, with any-listed ICD-10-PCS procedure codes for an operating room procedure (Appendix A)<sup>18</sup>. Elective surgical discharges are defined by specific MS-DRG codes with admission type recorded as elective (SID ATYPE=3).</p>
Rate calculation	<p>(Numerator/Denominator) X 1000</p>

<sup>16</sup> Extracted from AHRQ Patient Safety Indicators: [https://www.qualityindicators.ahrq.gov/Modules/psi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx)

<sup>17</sup> [Appendix E: Surgical Discharge MS-DRGs](#)

<sup>18</sup> [Appendix A: Operating Room Procedure Codes](#)

Specifications/definitions	<a href="#">AHRQ PSI 11</a> .
Data source	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Sharing Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative data, this data element will be extracted and uploaded to KQC
Baseline period	Preferred: Calendar year 2019
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	235: SOC-1 Post-op Respiratory Failure PSI-11

## Iatrogenic Pneumothorax Rate

SOC Measure Group: Iatrogenic Pneumothorax Rate AHRQ PSI-06 (Component of PSI-90)	
Iatrogenic pneumothorax cases (secondary diagnosis) per 1,000 surgical and medical discharges for patients ages 18 years and older. Excludes cases with chest trauma, pleural effusion, thoracic surgery, lung or pleural biopsy, diaphragmatic repair, or cardiac procedures; cases with a principal diagnosis of iatrogenic pneumothorax; cases with a secondary diagnosis of iatrogenic pneumothorax present on admission; and obstetric cases. <sup>19</sup>	
Measure type	Outcome
Numerator	Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-10-CM diagnosis codes for iatrogenic pneumothorax.
Denominator	Surgical (Appendix E) <sup>20</sup> and medical discharges (Appendix C) <sup>21</sup> for patients ages 18 years and older. Surgical and medical discharges are defined by specific MS-DRG codes.
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ PSI 06</a> .
Data source	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Sharing Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative data, this data element will be extracted and uploaded to KQC
Baseline period	Preferred: Calendar year 2019
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	236: SOC-2 Iatrogenic Pneumothorax Rate PSI-06

<sup>19</sup> Extracted from AHRQ Patient Safety Indicators: [https://www.qualityindicators.ahrq.gov/Modules/psi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx)

<sup>20</sup> [Appendix E: Surgical Discharge MS-DRGs](#)

<sup>21</sup> [Appendix C: Medical Discharge MS-DRGs](#)

## In Hospital Fall with Hip Fracture Rate

SOC Measure Group: In Hospital Fall with Hip Fracture Rate AHRQ PSI-08 (Component of PSI-90)	
In hospital fall with hip fracture (secondary diagnosis) per 1,000 discharges for patients ages 18 years and older. Excludes discharges with principal diagnosis of a condition with high susceptibility to falls (seizure disorder, syncope, stroke, occlusion of arteries, coma, cardiac arrest, poisoning, trauma, delirium or other psychoses, anoxic brain injury), diagnoses associated with fragile bone (metastatic cancer, lymphoid malignancy, bone malignancy), a principal diagnosis of hip fracture, a secondary diagnosis of hip fracture present on admission, and obstetric cases. <sup>22</sup>	
Measure type	Outcome
Numerator	Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any secondary ICD-10-CM diagnosis codes for hip fracture.
Denominator	Discharges, ages 18 years and older, in a medical DRG (Appendix C) <sup>23</sup> or in a surgical DRG (Appendix E) <sup>24</sup> , with any listed ICD-10-PCS procedure codes for an operating room procedure (Appendix A) <sup>25</sup>
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ PSI 08</a> .
Data source	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Sharing Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative data, this data element will be extracted and uploaded to KQC
Baseline period	Preferred: Calendar year 2019
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	237: SOC-3 In-Hospital Fall with Hip Fx PSI-08

<sup>22</sup> Extracted from AHRQ Patient Safety Indicators: [https://www.qualityindicators.ahrq.gov/Modules/psi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx)

<sup>23</sup> [Appendix C: Medical Discharge MS-DRGs](#)

<sup>24</sup> [Appendix E: Surgical Discharge MS-DRGs](#)

<sup>25</sup> [Appendix A: Operating Room Procedure Codes](#)

## Perioperative Hemorrhage or Hematoma Rate

SOC Measure Group: Perioperative Hemorrhage or Hematoma Rate AHRQ PSI-09(Component of PSI-90)	
<p>Perioperative hemorrhage or hematoma cases involving a procedure to treat the hemorrhage or hematoma, following surgery per 1,000 surgical discharges for patients ages 18 years and older. Excludes cases with a diagnosis of coagulation disorder; cases with a principal diagnosis of perioperative hemorrhage or hematoma; cases with a secondary diagnosis of perioperative hemorrhage or hematoma present on admission; cases where the only operating room procedure is for treatment of perioperative hemorrhage or hematoma; obstetric cases.<sup>26</sup></p>	
Measure type	Outcome
Numerator	<p>Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with:</p> <ul style="list-style-type: none"> <li>any secondary ICD-10-CM diagnosis codes for perioperative hemorrhage or hematoma <u>and</u> any-listed ICD-10-PCS procedure codes for treatment of hemorrhage or hematoma***</li> </ul> <p>***The ICD-10-CM specification is limited to postoperative hemorrhage or hematoma.</p>
Denominator	<p>Surgical discharges (Appendix E)<sup>27</sup>, for patients ages 18 years and older, with any listed ICD-10-PCS procedure codes for an operating room procedure (Appendix A)<sup>28</sup>. Surgical discharges are defined by specific MS-DRG codes.</p>
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ PSI 09</a> .
Data source	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Sharing Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative data, this data element will be extracted and uploaded to KQC
Baseline period	Preferred: Calendar year 2019
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	238: SOC-4 Peri-op Hemorrhage/Hematoma Rate PSI-09

<sup>26</sup> Extracted from AHRQ Patient Safety Indicators: [https://www.qualityindicators.ahrq.gov/Modules/psi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx)

<sup>27</sup> [Appendix E: Surgical Discharge MS-DRGs](#)

<sup>28</sup> [Appendix A: Operating Room Procedure Codes](#)

## Postoperative Acute Kidney Injury Requiring Dialysis Rate

SOC Measure Group: Postoperative Acute Kidney Injury Requiring Dialysis Rate AHRQ PSI-10 (Component of PSI-90)	
<p>Postoperative acute kidney failure requiring dialysis per 1,000 elective surgical discharges for patients ages 18 years and older. Excludes cases with principal diagnosis of acute kidney failure; cases with secondary diagnosis of acute kidney failure present on admission; cases with secondary diagnosis of acute kidney failure and dialysis procedure before or on the same day as the first operating room procedure; cases with acute kidney failure, cardiac arrest, severe cardiac dysrhythmia, cardiac shock, chronic kidney failure; a principal diagnosis of urinary tract obstruction and obstetric cases.<sup>29</sup></p>	
Measure type	Outcome
Numerator	<p>Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with:</p> <ul style="list-style-type: none"> <li>any secondary ICD-10-CM diagnosis codes for acute kidney failure and any listed ICD-10-PCS procedure codes for dialysis</li> </ul>
Denominator	<p>Elective surgical discharges (Appendix E)<sup>30</sup>, for patients ages 18 years and older, with any listed ICD-10-PCS procedure codes for an operating room procedure (Appendix A)<sup>31</sup>. Elective surgical discharges are defined by specific MS-DRG codes with admission type recorded as elective (ATYPE=3).</p>
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ PSI 10</a> .
Data source	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Sharing Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative data, this data element will be extracted and uploaded to KQC
Baseline period	Preferred: Calendar year 2019
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	239: SOC-5 Post-op Acute Kidney Injury PSI-10

<sup>29</sup> Extracted from AHRQ Patient Safety Indicators: [https://www.qualityindicators.ahrq.gov/Modules/psi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx)

<sup>30</sup> [Appendix E: Surgical Discharge MS-DRGs](#)

<sup>31</sup> [Appendix A: Operating Room Procedure Codes](#)

## Postoperative Wound Dehiscence Rate

SOC Measure Group: Postoperative Wound Dehiscence Rate AHRQ PSI-14 (Component of PSI-90)	
Postoperative reclosures of the abdominal wall with a diagnosis of disruption of internal operational wound per 1,000 abdominopelvic surgery discharges for patients ages 18 years and older. Excludes cases in which the abdominal wall reclosure occurs on or before the day of the first abdominopelvic surgery, cases with an immunocompromised state, cases with stays less than two (2) days, and obstetric cases. Cases are included if they have a diagnosis code of disruption of internal surgical. <sup>32</sup>	
Measure type	Outcome
Numerator	Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with any-listed ICD-10-PCS procedure code for repair of abdominal wall and with any-listed ICD-10-CM diagnosis code for disruption of internal surgical wound
Denominator	Discharges, for patients ages 18 years and older, with any-listed ICD-10-PCS procedure codes for abdominopelvic surgery, open approach, or with any-listed ICD-10-PCS procedure codes for abdominopelvic surgery, other than open approach
Rate calculation	$(\text{Numerator}/\text{Denominator}) \times 1000$
Specifications/definitions	<a href="#">AHRQ PSI 14</a> .
Data source	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Sharing Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative data, this data element will be extracted and uploaded to KQC
Baseline period	Preferred: Calendar year 2019
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	240: SOC-6 Post-op Wound Dehiscence PSI-14

<sup>32</sup> Extracted from AHRQ Patient Safety Indicators: [https://www.qualityindicators.ahrq.gov/Modules/psi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx)



## Abdominopelvic Accidental Puncture or Laceration Rate

SOC Measure Group: Abdominopelvic Accidental Puncture or Laceration Rate AHRQ PSI-15 (Component of PSI-90)	
Accidental punctures or lacerations (secondary diagnosis) per 1,000 discharges for patients ages 18 years and older who have undergone an abdominopelvic procedure; in which a second abdominopelvic procedure follows one or more days after an index abdominopelvic procedure. Excludes cases with accidental puncture or laceration as a principal diagnosis, cases with accidental puncture or laceration as a secondary diagnosis that is present on admission, and obstetric cases. <sup>33</sup>	
Measure type	Outcome
Numerator	Discharges, among cases meeting the inclusion and exclusion rules for the denominator, with: <ul style="list-style-type: none"> <li>• any secondary ICD-10-CM diagnosis codes for accidental puncture or laceration during a procedure; and</li> <li>• a second abdominopelvic procedure =&gt;1 day after an index abdominopelvic procedure.</li> </ul>
Denominator	Surgical (Appendix E) <sup>34</sup> and medical discharges (Appendix C) <sup>35</sup> , for patients ages 18 years and older, with any ICD-10-PCS procedure code for an abdominopelvic procedure.
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ PSI 15</a> .
Data source	Administrative claims data
Data entry/transfer	For hospitals who have signed a Data Sharing Agreement with KHA for their KY Inpatient and Outpatient (IPOP) administrative data, this data element will be extracted and uploaded to KQC
Baseline period	Preferred: Calendar year 2019
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	240: SOC-6 Post-op Wound Dehiscence PSI-14

<sup>33</sup> Extracted from AHRQ Patient Safety Indicators: [https://www.qualityindicators.ahrq.gov/Modules/psi\\_resources.aspx](https://www.qualityindicators.ahrq.gov/Modules/psi_resources.aspx)

<sup>34</sup> [Appendix E: Surgical Discharge MS-DRGs](#)

<sup>35</sup> [Appendix C: Medical Discharge MS-DRGs](#)

## Readmission within 30 Days (All Cause) Rate

Readmission: Rate (All Payor)	
Measure type	Outcome
Numerator	Inpatients returning as an acute care inpatient within 30 days of date of an inpatient discharge, to any facility, except for certain planned admissions (Note: Not all hospitals can track readmissions to other facilities. Hospitals should focus on tracking readmissions consistently across time).
Denominator	Total inpatient discharges (excluding discharges due to death)
Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Specifications/definitions	Facilities should follow the CMS definition of a readmission. This definition is explained in the “Frequently asked questions”, available on <a href="#">Quality Net</a> in the section “Defining a readmission” beginning on page 15. This measure includes all payors.
Data source (s)	Administrative data or billing systems or other tracking systems
Data entry/transfer	Enter in KQC
Baseline period	Preferred: Calendar year 2019 Alternate: First three months of monitoring data
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	37: READ-1 Readmission within 30 days (All Cause)

The following types of admissions are not considered readmissions in the measures:

1. Planned readmissions as identified by a CMS algorithm. The algorithm is based on three principles:
  - a. A few specific, limited types of care are always considered planned (obstetric delivery, transplant surgery, maintenance chemotherapy/immunotherapy, rehabilitation);
  - b. Otherwise, a planned readmission is defined as a non-acute readmission for a scheduled procedure; and
  - c. Admissions for acute illness or for complications of care are never planned. For the details of the planned readmission algorithm, please refer to the resources posted on the QualityNet website at Hospitals – Inpatient > Claims-Based Measures > Readmission Measures > Measure Methodology.

2. Same-day readmissions to the same hospital for the same condition. However, the readmission measures do consider patients as “readmitted” if they had an eligible readmission to the same hospital on the same day but for a different condition.
3. Observation stays and emergency department (ED) visits. These are not inpatient admissions and therefore are not considered potential readmissions.
4. Admissions to facilities other than short-term acute care hospitals. Facilities such as rehabilitation centers, psychiatric hospitals, hospice facilities, long-term care or long-term acute care hospitals, and skilled nursing facilities do not meet the definition of a short-term acute hospital. Admissions to these facilities are not considered for the readmission outcome.
5. Admissions that occur at eligible short-term acute care hospitals but where the patient is admitted to a separate, non-inpatient unit that bills under a separate CMS Certification Number (CCN), such as separate units for rehabilitation, psychiatric care, hospice care, or long-term care. Such admissions are not inpatient admissions and therefore are not considered as readmissions.

## Hospital-Wide All-Cause Unplanned Readmissions – Medicare

Readmission: Rate Medicare ONLY (NQF 1789)	
Measure type	Outcome
Numerator	A Medicare inpatient admission for any cause (except for certain planned readmissions), within 30 days from the date of discharge
Denominator	Medicare patients discharged from the hospital (excluding discharges due to death)
Calculation	$(\text{Numerator}/\text{Denominator}) \times 1000$
Specifications/definitions	<b><u>NQF 1789</u> (reference only; the NQF measure is risk-standardized)</b>
Data source (s)	Administrative data or billing systems or other tracking systems
Data entry/transfer	Enter in KQC
Baseline period	Preferred: Calendar year 2019 Alternate: First three months of monitoring period
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	196: READ-2 Hospital-Wide All-Cause Unplanned Readmissions – Medicare

This measure is currently publicly reported by CMS for those 65 years and older who are Medicare FFS beneficiaries admitted to non-federal hospitals. Hospitals are encouraged to report results for all Medicare inpatients, however, the Medicare FFS results are acceptable to report.

***Note: This measure is a subset of the “Readmission within 30 Days (All Cause) Rate” measure (37-READ-1). The only difference between this measure and the “Readmission within 30 Days (All Cause) Rate” is that this measure is limited to Medicare patients. See definition above for more details.***

## Chronic Obstructive Pulmonary Disease Readmission within 30 Days Rate

Readmission Group: COPD Readmission Rate (All Payor)	
The measure is defined as unplanned readmissions for any cause within 30 days after the date of discharge of the index admission, for patients 18 and older discharged from the hospital with either a principal diagnosis of COPD or a principal diagnosis of respiratory failure with a secondary diagnosis of acute exacerbation of COPD.	
Measure type	Outcome
Numerator	Inpatient admissions for any cause, except for planned readmissions, within 30 days after the date of discharge from the index admission for patients 18 years and older discharged from the hospital with either a principal diagnosis of COPD or a principal diagnosis of respiratory failure with a secondary diagnosis of acute exacerbation of COPD. If a patient has one or more admissions (for any reason) within 30 days after discharge from the index admission, only one is counted as a readmission.
Denominator	Includes admissions for patients 18 years or older discharged from the hospital with either a principal discharge diagnosis of COPD \ OR a principal discharge diagnosis of respiratory failure with a secondary discharge diagnosis of acute exacerbation of COPD. (Excluding discharges due to death).
Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Specifications/definitions	Facilities should follow the CMS definition of a readmission. This definition is explained in the “Frequently asked questions”, available on <a href="#">Quality Net</a> in the section “Defining a readmission” beginning on page 15.
Data source (s)	Administrative data or billing systems or other tracking systems
Data entry/transfer	Enter in KQC
Baseline period	Preferred: Calendar year 2019 Alternate: First three months of monitoring data
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	242: READ-3 COPD 30-Day Readmission Rate

## Heart Failure Readmission within 30 Days Rate

Readmission Group: HF Readmission Rate (All Payor)	
The measure is defined as unplanned readmissions for any cause within 30 days after the date of discharge of the index admission, discharged from the hospital with a principal diagnosis of Heart Failure.	
Measure type	Outcome
Numerator	Inpatient admissions for any cause, except for planned readmissions, within 30 days after the date of discharge from the index admission for patients 18 years and older discharged from the hospital with either a principal diagnosis of HF. If a patient has one or more admissions (for any reason) within 30 days after discharge from the index admission, only one is counted as a readmission.
Denominator	Includes admissions for patients 18 years or older discharged from the hospital with either a principal discharge diagnosis of HF. (Excluding discharges due to death).
Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Specifications/definitions	Facilities should follow the CMS definition of a readmission. This definition is explained in the “Frequently asked questions”, available on <a href="#">Quality Net</a> in the section “Defining a readmission” beginning on page 15.
Data source (s)	Administrative data or billing systems or other tracking systems
Data entry/transfer	Enter in KQC
Baseline period	Preferred: Calendar year 2019 Alternate: First three months of monitoring data
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	243: READ-4 HF 30-Day Readmission Rate

## Pneumonia Readmission within 30 Days Rate

Readmission Group: Pneumonia Readmission Rate (All Payor)	
The measure estimates a hospital-level 30-day, all-cause, for patients age 18 years and older discharged from the hospital with either a principal discharge diagnosis of pneumonia (including aspiration pneumonia) or a principal discharge diagnosis of sepsis (not severe sepsis) with a secondary diagnosis of pneumonia (including aspiration pneumonia) coded as present on admission (POA).	
Measure type	Outcome
Numerator	Inpatient admissions for any cause, except for planned readmissions, within 30 days after the date of discharge from the index admission for patients 18 and older discharged from the hospital with either a principal discharge diagnosis of pneumonia (including aspiration pneumonia) or a principal discharge diagnosis of sepsis (not severe sepsis) with a secondary diagnosis of pneumonia (including aspiration pneumonia) coded as present on admission (POA). If a patient has one or more admissions (for any reason) within 30 days after discharge from the index admission, only one is counted as a readmission.
Denominator	Includes admissions for patients 18 or older discharged from the hospital with either a principal discharge diagnosis of pneumonia (including aspiration pneumonia) or a principal discharge diagnosis of sepsis (not severe sepsis) with a secondary diagnosis of pneumonia (including aspiration pneumonia) coded as present on admission (POA). (Excluding discharges due to death).
Calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Specifications/definitions	Facilities should follow the CMS definition of a readmission. This definition is explained in the “Frequently asked questions”, available on <a href="#">Quality Net</a> in the section “Defining a readmission” beginning on page 15.
Data source (s)	Administrative data or billing systems or other tracking systems
Data entry/transfer	Enter in KQC
Baseline period	Preferred: Calendar year 2019 Alternate: First three months of monitoring data
Monitoring period	Monthly, beginning January 2021
KQC Measure ID(s)	244: READ-5 Pneumonia 30-Day Readmission Rate