



# KENTUCKY QUALITY ENCYCLOPEDIA OF MEASURES

# Encyclopedia of Measures (EOM)

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## Measure Applicability

<b>Adverse Drug Events (ADE)</b>	
<a href="#">ADE - Glycemic Management- Severe Hypoglycemia</a>	Acute Care and Critical Access
<a href="#">ADE- Glycemic Management- Severe Hyperglycemia</a>	Acute Care and Critical Access
<b>Antimicrobial Stewardship (AMS)</b>	
<a href="#">AMS- SAAR Category All Antibacterial Agents</a>	Hospitals <b>reporting to NHSN</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>Falls</b>	
<a href="#">Falls with injury</a>	All hospitals
<b>Methicillin-resistant Staphylococcus aureus (MRSA)</b>	
<a href="#">SIR</a>	Hospitals <b>reporting to NHSN</b>
<a href="#">Rate</a>	All hospitals
<b>Pressure Ulcers</b>	

<a href="#">Rate</a>	All hospitals (preferred measure)
<a href="#">Prevalence</a>	If not able to do rate
<b>Readmissions</b>	
<a href="#">All-cause, 30-day readmissions</a>	All hospitals (preferred measure)
<a href="#">All-cause, 30-day readmissions, Medicare FFS</a>	
<b>Sepsis</b>	
<a href="#">Postoperative Sepsis Rate</a>	Hospitals that <b>perform inpatient surgery</b>
<a href="#">Hospital-Onset Sepsis Mortality Rate</a>	Optional – Other Sepsis measures preferred
<a href="#">Overall Sepsis Mortality Rate</a>	All hospitals
<b>Surgical Site infections (SSI)</b>	
<a href="#">SSI SIR – colon surgeries</a>	Hospitals <b>performing colon surgeries</b> and <b>reporting to NHSN</b>
<a href="#">SSI SIR – abdominal hysterectomies</a>	Hospitals <b>performing abdominal hysterectomies</b> and <b>reporting to NHSN</b>
<a href="#">SSI SIR – total knee replacement surgeries</a>	Hospitals <b>total knee replacement surgeries</b> and <b>reporting to NHSN</b>
<a href="#">SSI SIR – total hip replacement surgeries</a>	Hospitals <b>performing total hip replacement surgeries</b> and <b>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>
<a href="#">SSI rate – total knee replacement surgeries</a>	Hospitals <b>total knee replacement surgeries</b>
<a href="#">SSI rate – total hip replacement surgeries</a>	Hospitals <b>performing total hip replacement surgeries</b>
<b>Post-Operative Pulmonary Embolism or Deep Vein Thrombosis (VTE)</b>	
<a href="#">Rate</a>	Hospitals <b>that perform inpatient surgeries</b>
<b>Ventilator-Associated Events (VAE)</b>	
<a href="#">Ventilator Associated Condition (VAC) Rate</a>	Hospitals <b>that use ventilators</b>
<a href="#">Infection-Related Ventilator-Associated Complication (IVAC)</a>	Hospitals <b>that use ventilators</b>
<a href="#">Possible Ventilator-Associated Pneumonia (PVAP)</a>	Hospitals <b>that use ventilators</b>

Green are measures where all hospitals collect regardless of service

## Adverse Drug Events: Glycemic Management-Severe Hypoglycemia (Hospital Harm)

ADE: Glycemic Management	
Measure type	Outcome
Numerator	<p>Inpatient hospitalizations where a severe hypoglycemic event occurred during the encounter, which is:</p> <ol style="list-style-type: none"> <li>1. A glucose result less than 40 mg/dL</li> </ol> <p style="text-align: center;"><b>AND</b></p> <ol style="list-style-type: none"> <li>2. A hypoglycemic medication administered within 24 hours prior to the start of the severe hypoglycemic event (i.e., the glucose result less than 40 mg/dL)</li> </ol> <p style="text-align: center;"><b>AND</b></p> <ol style="list-style-type: none"> <li>3. No subsequent repeat test for glucose with a result greater than 80 mg/dL within five minutes of the time of the initial glucose test with result less than 40mg/dL</li> </ol> <p>Only one qualifying severe hypoglycemic event is counted in the numerator, and only one severe hypoglycemic event is counted per encounter. The 24-hour and 5-minute timeframes are based on the time the glucose was drawn, as this reflects the time the patient was experiencing that specific glucose level.</p>
Denominator	<p>Inpatient hospitalizations that end during the measurement period for patients age 18 and older and at least one hypoglycemic medication was administered during the encounter.</p> <p>The measure includes instances of administration of hypoglycemic medications in the emergency department or in observation status at the start of an inpatient hospitalization when assessing inclusion of encounters in the measure denominator.</p>
Rate calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Specifications/definitions	See references below for guidance
Data source (s)	<p><i>Numerator:</i> incident reporting systems, trigger tools, pharmacists' intervention systems, medical record review</p> <p><i>Denominator:</i> billing systems</p>
Data entry/transfer	KQC
Baseline period	Preferred: Calendar year 2024
Monitoring period	Monthly, beginning January 2024
KQC Measure ID(s)	347: ADE-1D Severe Hypoglycemia in inpatients

The definition of an adverse drug event is any injury resulting from medication use, including physical harm, mental harm or loss of function<sup>1</sup>. Data can be collected through incident reporting, trigger tools, pharmacists' intervention data or administrative data.

The Institute for Healthcare Improvement's (IHI) trigger tool includes a list of known ADE triggers and instructions for measuring the number and degree of harmful medication events. The tool is available online at the following link:

<http://www.ihl.org/resources/Pages/Tools/TriggerToolforMeasuringAdverseDrugEvents.aspx>

Description: Inpatient hospitalizations for patients 18 years of age or older at admission, who were administered at least one hypoglycemic medication during the encounter, who suffer the harm of a severe hypoglycemic event during the encounter

The measure includes instances of administration of hypoglycemic medications in the emergency department or in observation status at the start of an inpatient hospitalization when assessing inclusion of encounters in the measure denominator.

This measure aligns with the CMS metric Hospital harm- Severe Hypoglycemia

[Hospital Harm - Severe Hypoglycemia | eCQI Resource Center \(healthit.gov\)](#)

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<sup>1</sup> Bates, D.W., Cullen, D.J., Laird, N., et al. (1995). Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA*, 274(1), 29-34.

## Adverse Drug Events: Glycemic Management -Severe Hyperglycemia (Hospital Harm)

ADE: Glycemic Management	
Measure type	Outcome
Numerator	<p>Inpatient hospitalizations with a hyperglycemic event within the first 10 days of the encounter minus the first 24 hours, and minus the last period before discharge if less than 24 hours</p> <p>A hyperglycemic event is defined as:</p> <ol style="list-style-type: none"> <li>1) A day with at least one glucose value &gt;300 mg/dL;</li> </ol> <p>OR</p> <ol style="list-style-type: none"> <li>2) A day where a glucose test and result was not found, and it was immediately preceded by two contiguous, consecutive days where at least one glucose value during each of the two days was &gt;=200 mg/dL</li> </ol>
Denominator	<p>Inpatient hospitalizations for patients age 18 and older that end during the measurement period, as well as either:</p> <ol style="list-style-type: none"> <li>1) a diagnosis of diabetes that starts before or during the encounter; or</li> <li>2) administration of at least one dose of insulin or any hypoglycemic medication during the encounter; or</li> <li>3) presence of at least one glucose value &gt;=200 mg/dL at any time during the encounter</li> </ol> <p>Exclusion: Inpatient hospitalizations for patients with an initial glucose result of &gt;= 1000 mg/dL anytime between 1 hour prior to the start of the encounter to 6 hours after the start of the encounter</p>
Rate calculation	$(\text{Numerator}/\text{Denominator}) \times 100$
Specifications/definitions	See references below for guidance
Data source (s)	<p><i>Numerator:</i> incident reporting systems, trigger tools, pharmacists' intervention systems, medical record review</p> <p><i>Denominator:</i> billing systems</p>
Data entry/transfer	KQC
Baseline period	Preferred: Calendar year 2024
Monitoring period	Monthly, beginning January 2024
KQC Measure ID(s)	348: ADE-1E Severe Hyperglycemia in inpatients

The definition of an adverse drug event is any injury resulting from medication use, including physical harm, mental harm, or loss of function<sup>2</sup>. Data can be collected through incident reporting, trigger tools, pharmacists' intervention data or administrative data.

Description: This measure assesses the number of inpatient hospital days with a hyperglycemic event (harm) per the total qualifying inpatient hospital days for that encounter for patients 18 years of age or older at admission

This measure aligns with the CMS metric Hospital harm- Severe Hyperglycemia

[Hospital Harm - Severe Hyperglycemia | eCQI Resource Center \(healthit.gov\)](https://www.healthit.gov/eCQI/Resource-Center/Hospital-Harm-Severity-Hyperglycemia)

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<sup>2</sup> Bates, D.W., Cullen, D.J., Laird, N., et al. (1995). Incidence of adverse drug events and potential adverse drug events. Implications for prevention. ADE Prevention Study Group. *JAMA*, 274(1), 29-34.



# Antimicrobial Stewardship: Standardized Antimicrobial Administration Ratio (SAAR) -All Antibacterial Agents

AMS: SAAR category All Antibacterial Agents – NHSN reporting Facilities ONLY (Adult and Pediatric facilities)	
Measure type	Outcome
Numerator	Observed Antimicrobial Days  <b>Definition:</b> <i>how many days the facility administered antimicrobial agents to patients reported to the NHSN AU option in all SAAR eligible locations within the facility using the SAAR category- All Antibacterial Agents</i>
Denominator	Predicted Antimicrobial Days  <b>Definition:</b> <i>calculated by NHSN using risk-adjusted SAAR predictive models</i>
Calculation	(Numerator/Denominator)
Specifications/definitions	<a href="#">CDC NHSN</a> Additional resources: <a href="#">CDC</a>
Data source (s)	NHSN
Data entry/transfer	NHSN-confer rights to “KHA Quality”
Baseline period	Preferred: Calendar year 2024
Monitoring period	Monthly, beginning January 2024
KQC Measure ID(s)	358: AMS-1a Standardized Antimicrobial Administration Ratio (SAAR)

**Overview:** The Standardized Antimicrobial Administration Ratio (SAAR) provides a standardized metric of antimicrobial use. The SAAR is a ratio comparing observed, or reported, antimicrobial use to the antimicrobial use predicted by a referent, or baseline, population. A SAAR is not a definitive measure of appropriateness of antimicrobial use; any SAAR value may warrant additional investigation.

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.

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

- [Keys to Success with the SAAR | Analysis Resources | NHSN | CDC](#)
- [Keys to Success with TAS | NHSN | CDC](#)
- [Keys to Success with the Standardized Antimicrobial Administration Ratio \(cdc.gov\)](#)
- [NHSN's Guide to the SAAR \(cdc.gov\)](#)

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

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

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

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)

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

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

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)

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

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 C. difficile 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>

## Falls with Injury

Falls: Rate-All Documented Patient Falls with an Injury Level of Minor or Greater (NQF 0202)	
Measure type	Outcome
Numerator	Total number of patient falls of injury level minor or greater (whether or not assisted by a staff member) on eligible hospital unit during the measurement period <sup>3</sup> .
Denominator	Patient days in eligible units during the measurement period <sup>4</sup>
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">NQF 0202 definition</a>
Data source	Administrative preferred Billing systems, medical records, surveillance systems
Data entry/transfer	Enter in KQC
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between January 2014 and September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	28: FALLS-1 Falls With Injury (minor or greater) (NSC-5)

These data elements shall be submitted by all hospitals. The total patient days can be collected from billing systems. The number of patient falls could be collected from electronic clinical data or medical records, fall surveillance systems, injury reports, event tracking systems or other similar sources.

The Agency for Healthcare Research & Quality (AHRQ) has developed a comprehensive resource for measuring fall rates and fall prevention practices. The resource is available online at the following link: <http://www.ahrq.gov/professionals/systems/hospital/fallpxtoolkit/index.html>

The American Nurses Association (ANA) has published an article about measuring fall program outcomes. The article is available online at the following link: <http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume122007/No2May07/ArticlePreviousTopic/MeasuringFallProgramOutcomes.html>

<sup>3</sup> Extracted from NQF Quality Positioning System: <http://www.qualityforum.org/QPS/0202>

<sup>4</sup> Includes inpatients, short stay patients, observation patients, and same day surgery patients who receive care on eligible inpatient units for all or part of a day on the following unit types: adult critical care, step-down, medical, surgical, medical-surgical combined, critical access and adult rehabilitation inpatient units.

**Definition of Minor or Greater:**

When the initial fall report is written by the nursing staff, the extent of injury may not yet be known. Hospitals have 24 hours to determine the injury level, e.g., when you are awaiting diagnostic test results or consultation reports.

- None—patient had no injuries (no signs or symptoms) resulting from the fall; if an x-ray, CT scan or other post fall evaluation results in a finding of no injury
- Minor—resulted in application of a dressing, ice, cleaning of a wound, limb elevation, topical medication, pain, bruise or abrasion
- Moderate—resulted in suturing, application of steri-strips/skin glue, splinting, or muscle/joint strain
- Major—resulted in surgery, casting, traction, required consultation for neurological (basilar skull fracture, small subdural hematoma) or internal injury (rib fracture, small liver laceration) or patients with coagulopathy who receive blood products as a result of a fall
- Death—the patient died as a result of injuries sustained from the fall (not from physiologic events causing the fall)

Reference: [NQF Injury Definitions](#)

**Eligible Units and populations:** Target population is adult, acute care inpatient, short stay, observation and rehabilitation patients. Eligible unit types include adult critical care, stepdown, medical, surgical, medical-surgical combined, critical access, adult rehabilitation inpatient.

**Excluded units and populations:** pediatric, psychiatric, obstetrical

## MRSA Bacteremia - Standardized Infection Ratio (SIR)

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

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>

## Pressure Ulcer Rate, Stage 3+

Pressure Ulcer/Injury: Rate – AHRQ PSI 13 (preferred pressure injury measure)	
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) <sup>5</sup>
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>6</sup>
Calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<a href="#">AHRQ PSI 03</a> (navigate to PSI 03 Pressure Ulcer Rate)
Data source	Administrative 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: October 1, 2015 through September 30, 2016 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between October 2015 through September 2016
Monitoring period	Monthly, beginning Oct 2016
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>5</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>6</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/CritAccessHospfctsh.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.

## Hospital-Acquired Pressure Ulcer Prevalence, Stage 2+

Pressure Ulcer/Injury: Prevalence (NQF 0201)	
Measure type	Outcome
Numerator	Patients that have at least one category/stage II or greater hospital-acquired pressure ulcer on the day of the prevalence measurement episode <sup>7</sup>
Denominator	All patients, 18 years of age or greater, surveyed for the measurement episode
Calculation	(Numerator/Denominator) X 100
Specifications/definitions	<a href="#">NQF 0201</a>
Data source (s)	Surveillance systems
Data entry/transfer	Enter in KQC
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12, 9, 6, or 3-month consecutive period prior to Oct 2016
Monitoring period	Preferred: Monthly, beginning Oct 2016 Alternate: Quarterly, beginning with 4Q 2016 (report in last month of each quarter)
KQC Measure ID	34: PrU-2 Patients with at least One Stage II or Greater Nosocomial Pressure Ulcers (NSC-2)

These data elements shall be submitted by all hospitals. Hospitals are strongly encouraged to report pressure ulcer/injury prevalence monthly.

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>7</sup> Extracted from NQF Quality Positioning System: <http://www.qualityforum.org/QPS/0201>

## 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 about readmissions” chapter, available on <a href="#">Quality Net</a> . “Chapter 3 – Readmissions Measures,” section “Defining readmissions” beginning on page 7 This is the same definition as is used for Medicare readmission measure but 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 2014 Alternate: Oldest 12, 9, 6, or 3-month consecutive period prior to Oct 2016
Monitoring period	Monthly, beginning Oct 2016
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
Calculation	(Numerator/Denominator) X 1000
Specifications/definitions	<u>NQF 1789</u>
Data source (s)	Administrative data or billing systems or other tracking systems
Data entry/transfer	Enter in KQC
Baseline period	Preferred: Calendar year 2014 Alternate: Oldest 12, 9, 6, or 3-month consecutive period prior to Oct 2016
Monitoring period	Monthly, beginning Oct 2016
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.**

## Postoperative Sepsis Rate

### Facilities that perform inpatient surgeries

Sepsis: Post-op Rate– AHRQ PSI-13	
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.
Denominator	Elective surgical discharges for patients ages 18 years and older, with any listed ICD-10-PCS procedure codes for an operating room procedure. <a href="#">These codes are listed here</a>
Calculation	$(\text{Numerator}/\text{Denominator}) \times 1000$
Specifications/definitions	<a href="#">AHRQ PSI 13</a> (navigate to PSI 13 Postoperative Sepsis Rate)
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: October 1, 2015 through September 30, 2016 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between October 2015 through September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	57: SEPSIS-1a Postoperative Sepsis (AHRQ - PSI 13)

## Hospital-Onset Sepsis Mortality Rate

Sepsis: Mortality Rate (Not Present on Admission)	
In-hospital deaths per 1,000 discharges, among patients ages 18 through 89 years or obstetric patients, with hospital-onset sepsis	
Measure type	Outcome
Numerator	Number of in-hospital deaths due to severe sepsis and septic shock
Denominator	Number of patients with hospital-onset severe sepsis / septic shock. Note: hospital-onset is an infection that appears 48 hours or more after admission <sup>8</sup>
Rate calculation	(Numerator/Denominator) X 1000
Specifications/definitions	For specific diagnosis codes identifying severe sepsis / septic shock, refer to the numerator specifications for <a href="#">AHRQ PSI 13</a> (navigate to PSI 13 Postoperative Sepsis Rate).
Data source(s)	Administrative claims, medical records
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: October 1, 2015 through September 30, 2016 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between October 2015 through September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	194: SEPSIS-1c Hospital-Onset Sepsis Mortality Rate

For more information on reducing sepsis, please visit the

<sup>8</sup> <http://www.surgeryencyclopedia.com/Fi-La/Hospital-Acquired-Infections.html#ixzz4O1GIPiWy>,  
<http://bmcmedicine.biomedcentral.com/articles/10.1186/1741-7015-12-40>,  
<https://systematicreviewsjournal.biomedcentral.com/articles/10.1186/s13643-015-0103-6>,  
<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3470069/>

## Overall Sepsis Mortality Rate

### All facilities

Sepsis: Mortality Rate	
In-hospital deaths per 1,000 discharges, among patients ages 18 through 89 years or obstetric patients, with sepsis	
Measure type	Outcome
Numerator	Number of in-hospital deaths due to severe sepsis and septic shock
Denominator	Number of patients with severe sepsis / septic shock <sup>9</sup>
Calculation	(Numerator/Denominator) X 1000
Specifications/definitions	For specific diagnosis codes identifying severe sepsis / septic shock, refer to the numerator specifications for <a href="#">AHRQ PSI 13</a> (navigate to PSI 13 Postoperative Sepsis Rate). CMS excludes assignment to comfort/palliative care at or within 6 hours of admission to determine sepsis mortality. It is a hospital's choice whether to include or exclude comfort/palliative care, <i>as long as the monthly measurement is consistent with the baseline measurement and throughout the monitoring period.</i>
Data source(s)	Administrative claims, medical records
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: October 1, 2015 through September 30, 2016 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between October 2015 through September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	195: SEPSIS-1d Overall Sepsis Mortality Rate

For more information on reducing sepsis, please visit the .

<sup>9</sup> This measure includes hospital-onset sepsis cases, post-operative sepsis cases, AND any cases that present with sepsis to the hospital (for example, those cases coming in as transfers, or presenting in the emergency department). This measure focuses on measuring the management of sepsis patients once they are identified.

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

### NHSN Reporting Facilities ONLY

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> <li>• Measure 1c: Total knee replacements</li> <li>• Measure 1d: Total hip replacements</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 142: SSI-1c Total Knee Replacement Surgery SIR 143: SSI-1d Total Hip Replacement 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

### Facilities that perform inpatient surgeries

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> <li>• Measure 1c: Total knee replacements</li> <li>• Measure 1d: Total hip replacements</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 145: SSI-2c Total Knee Replacement Surgical Site Infection Rate 144: SSI-2d Total Hip Replacement 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.

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

Facilities that perform inpatient surgeries

Post-OP PE/DVT: Rate	
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 or MS-DRGs and a procedure code for an operating room procedure.
Rate calculation	$(\text{Numerator}/\text{Denominator}) \times 1000$
Specifications/definitions	<a href="#">AHRQ PSI 12</a> (navigate to PSI 12 Perioperative Pulmonary Embolism or Deep Vein Thrombosis Rate).
Data source	Administrative 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: October 1, 2015 through September 30, 2016 Alternate: Oldest 12, 9, 6, or 3-month consecutive period between October 2015 through September 2016
Monitoring period	Monthly, beginning Oct 2016
KQC Measure ID(s)	46: VTE-1 Post-op PE or DVT (All Adults) (AHRQ PSI-12)



## Ventilator-Associated (VAC)

Facilities that provide ventilator care for 72 hours or more

VAE: VAC Rate	
Measure type	Outcome
Numerator	Number of events that meet the criteria of VAC; including those that meet the criteria for infection-related ventilator-associated complication (IVAC) and possible/probable ventilator-associated pneumonia (PVAP)
Denominator	Number of ventilator days
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)	39: VAE-1 VAC Rate-All Units (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 this measure.

## Infection-Related Ventilator-Associated Complication (IVAC)

Facilities that provide ventilator care for 72 hours or more

VAE: IVAC Rate	
Measure type	Outcome
Numerator	Number of events that meet the criteria of infection-related ventilator-associated condition (IVAC); including those that meet the criteria for Possible/Probable VAP
Denominator	Number of ventilator days
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)	40: VAE-2 IVAC Rate-All Units (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 this measure.

## Possible Ventilator Associated Pneumonia (PVAP)

Facilities that provide ventilator care for 72 hours or more

VAE: PVAP Rate	
Measure type	Outcome
Numerator	Number of observed PVAPs
Denominator	Number of ventilator days
Rate calculation	$(\text{Numerator}/\text{Denominator}) \times 1000$
Specifications/definitions	<a href="#">CDC NHSN</a>
Population	Adult, children, neonates
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 October 1, 2016
Note	<b>This measure is not applicable for hospitals that do not submit data to NHSN</b>
KQC Measure ID(s)	204: VAE-3 Possible Ventilator Associated Pneumonia

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**, will not report this measure.

