



Missouri Transparency Initiative
**PRICE AND QUALITY MEASURE
TECHNICAL MANUAL**

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INTRODUCTION

The Price and Quality Measure Technical Manual provides specifications for Missouri price and quality measures that are included in the Missouri Hospital Association's transparency initiative. This set of indicators tracks outcomes related to the cost and quality of patient care throughout the health care continuum. The price measures were chosen by the MHA Price Transparency Workgroup. The quality measures were selected by MHA's Strategic Quality Initiatives Advisory Council after a comprehensive review of criteria, such as financial implications, regulatory impact and current state-aggregate performance.

The majority of quality measures presented in this manual are synchronized with national stewards, such as the Centers for Medicare & Medicaid Services, the National Healthcare Surveillance Network and the Agency for Healthcare Research and Quality. To ensure your facility has the most current information, refer to the national steward's website or resources; live links are provided on each measure page.

PRICE

Price data included in this manual represent inpatient emergency department and outpatient procedure codes based on a clinical classification system. On the Focus on Hospitals website, www.focusonhospitals.com, diagnosis-related groups are translated into layman's language and grouped into categories similar to medical diagnosis categories.

Questions related to pricing should be directed to Mary Becker, Senior Vice President of Strategic Partnerships and Communications at MHA, at mbecker@mhanet.com or 573/893-3700, ext. 1303.

QUALITY

Hospitals transitioned to using ICD-10 diagnosis and procedure codes for all administrative claims effective Oct. 1, 2015. AHRQ and CMS have not yet released ICD-10-compliant software programs used to produce risk-adjusted measures of quality, safety and readmissions. To continue providing risk-adjusted data, MHA is using Hospital Industry Data Institute data that have been "backmapped" using the GEM ICD-10 to ICD-9 crosswalk provided by CMS. ICD-10-coded discharges were "backmapped" to comparable ICD-9 codes to the extent necessary to enable use of available software to produce risk-adjusted rates.

Questions about quality should be directed to Stephen Njenga, Director of Performance Measurement Compliance at MHA, at snjenga@mhanet.com or 573/893-3700, ext. 1314. To learn more about the GEM ICD-10 process, please read the HIDI [ICD-10 Transitional Strategy](#).

Managing Chronic Diseases

MANAGEMENT OF DIABETES: SHORT-TERM COMPLICATIONS

Data Steward

[Agency for Healthcare Research and Quality.](#)

Measure Description

Admissions for principal diagnosis with short-term complications per 100,000 population, ages 18 and older. All payors.

Measure Specifications

[Prevention Quality Indicators #1 \(PQI 1\).](#)

Data Source

Discharge claims data

Risk Adjustment

Age group and sex

MANAGEMENT OF DIABETES: LONG-TERM COMPLICATIONS

Data Steward

[Agency for Healthcare Research and Quality.](#)

Measure Description

Admissions for a principal diagnosis of diabetes with long-term complications (renal, eye, neurological, circulatory or complications not otherwise specified) per 100,000 population, ages 18 years and older. Excludes obstetric admissions and transfers from other institutions. All payors.

Measure Specifications

[Prevention Quality Indicators #3 \(PQI 3\).](#)

Data Source

Discharge claims data

Risk Adjustment

Age group and sex

MANAGEMENT OF DIABETES: UNCONTROLLED

Data Steward

[Agency for Healthcare Research and Quality.](#)

Measure Description

Admissions for principal diagnosis without mention of short- or long-term complications per 100,000 population, ages 18 and older. All payors.

Measure Specifications

[Prevention Quality Indicators #14 \(PQI 14\).](#)

Data Source

Discharge claims data

Risk Adjustment

Age group and sex

MANAGEMENT OF CHRONIC OBSTRUCTIVE PULMONARY DISEASE

Data Steward

[Agency for Healthcare Research and Quality.](#)

Measure Description

Admissions for principal diagnosis of chronic obstructive pulmonary disease or asthma per 100,000 population, ages 40 and older. All payors.

Measure Specifications

[Prevention Quality Indicators #5 \(PQI 5\).](#)

Data Source

Discharge claims data

Risk Adjustment

Age group and sex

MANAGEMENT OF HYPERTENSION

Data Steward

[Agency for Healthcare Research and Quality.](#)

Measure Description

Admissions with a principal diagnosis of hypertension per 100,000 population, ages 18 and older. Excludes kidney disease combined with dialysis access procedure admissions, cardiac procedure admissions, obstetric admissions and transfers from other institutions. All payors.

Measure Specifications

[Prevention Quality Indicators #7 \(PQI 7\).](#)

Data Source

Discharge claims data

Risk Adjustment

Age group and sex

MANAGEMENT OF CONGESTIVE HEART FAILURE

Data Steward

[Agency for Healthcare Research and Quality.](#)

Measure Description

Admissions with a principal diagnosis of heart failure per 100,000 population, ages 18 and older. Excludes cardiac procedure admissions, obstetric admissions and transfers from other institutions. All payors.

Measure Specifications

[Prevention Quality Indicators #8 \(PQI 8\).](#)

Data Source

Discharge claims data

Risk Adjustment

Age group and sex

Preventing Infections

CATHETER-ASSOCIATED URINARY TRACT INFECTION

Data Steward

[CDC NHSN](#).

Measure Description

Catheter-associated urinary tract standardized infection ratio (SIR). ICUs and other inpatient units.

Measure Specifications

[NHSN Measure Specifications](#).

Numerator Statement

Number of observed infections

Denominator Statement

Number of predicted infections

Exclusions

None noted

Data Source

CDC NHSN. Hospital abstracted.

Risk Adjustment

Type of patient care location, hospital affiliation with medical school, bed size of the patient care location

CENTRAL VENOUS CATHETER-RELATED BLOODSTREAM INFECTION

Data Steward

[CDC NHSN](#).

Measure Description

Central line-associated bloodstream infection standardized infection ratio (SIR). ICUs and other inpatient units.

Measure Specifications

[NHSN Measure Specifications](#).

Numerator Statement

Number of observed infections

Denominator Statement

Number of predicted infections

Exclusions

None noted

Data Source

CDC NHSN. Hospital abstracted.

Risk Adjustment

Type of patient care location, hospital affiliation with medical school, bed size of the patient care location

POSTOPERATIVE SEPSIS

Data Steward

[Agency for Healthcare Research and Quality.](#)

Measure Description

Postoperative sepsis cases (secondary diagnosis) per 1,000 elective surgical discharges for patients ages 18 and older. Excludes cases with a principal diagnosis of sepsis, cases with a secondary diagnosis of sepsis present on admission, cases with a principal diagnosis of infection, cases with a secondary diagnosis of infection present on admission (only if they also have a secondary diagnosis of sepsis), cases with an immunocompromised state, cases with cancer, obstetric discharges, and cases with stays less than four days. All payors.

Measure Specifications

[Patient Safety Indicators #13 \(PSI 13\).](#)

Data Source

Discharge claims data

Risk Adjustment

Age group, sex and medical condition

SURGICAL SITE INFECTION: COLON SURGERY

Data Steward

[CDC NHSN.](#)

Measure Description

Surgical site infection ratio - colon surgeries

Measure Specifications

[NHSN Measure Specifications.](#)

Numerator Statement

Number of observed infections

Denominator Statement

Number of predicted infections

Exclusions

None noted

Data Source

CDC NHSN. Hospital abstracted

Risk Adjustment

Duration of surgery, surgical wound class, use of endoscopes, re-operation status, patient age, patient assessment at time of anesthesiology

SURGICAL SITE INFECTION: ABDOMINAL HYSTERECTOMY

Data Steward

[CDC NHSN.](#)

Measure Description

Surgical site infection standardized infection ratio - abdominal hysterectomies

Measure Specifications

[NHSN Measure Specifications.](#)

Numerator Statement

Number of observed infections

Denominator Statement

Number of predicted infections

Exclusions

None noted

Data Source

CDC NHSN. Hospital abstracted.

Risk Adjustment

Duration of surgery, surgical wound class, use of endoscopes, re-operation status, patient age, patient assessment at time of anesthesiology

CLOSTRIDIUM DIFFICILE

Data Steward

[CDC NHSN.](#)

Measure Description

C. Diff standardized infection ratio

Measure Specifications

[NHSN Measure Specifications.](#)

Numerator Statement

Number of observed infections

Denominator Statement

Number of predicted infections

Exclusions

None noted

Data Source

CDC NHSN. Hospital abstracted.

Risk Adjustment

Medical school affiliation, facility bedsize, CDI test type, facility type and state

METHICILLIN-RESISTANT STAPHYLOCOCCUS AUREUS INFECTION**Data Steward**

[CDC NHSN](#).

Measure Description

MRSA standardized infection ratio

Measure Specifications

[NHSN Measure Specifications](#).

Numerator Statement

Number of observed infections

Denominator Statement

Number of predicted infections

Exclusions

None noted

Data Source

CDC NHSN. Hospital abstracted.

Risk Adjustment

Medical school affiliation, facility bedsize, facility type and state

Preventing Harm

FALLS (INJURIES FROM FALLS AND TRAUMA)

Data Steward

[Hospital Acquired Condition. The Centers for Medicare & Medicaid Services.](#)

Measure Description

All inpatients who had an injury from a fall or trauma. All payors.

Numerator Statement

Patients with an occurrence of the following corresponding complication or comorbidity diagnosis codes as a secondary diagnosis (2-25 on the claim) with a POA code of “N” or “U.”

CC/MCC DIAGNOSIS CODE	DESCRIPTION
800-829	FRACTURE
830-839	DISLOCATION
850-854	INTRACRANIAL INJURY
925-929	CRUSHING INJURY
940-949	BURN
991-994	OTHER INJURIES

Denominator Statement

All acute inpatient discharges

Exclusions

- diagnosis was present at time of inpatient admission
- clinically undetermined (provider unable to clinically determine whether the condition was present at the time of inpatient admission)

Data Source

Discharge claims data

VENOUS THROMBOEMBOLISM (POST-OP PE OR DVT)

Data Steward

[Agency for Healthcare Research and Quality.](#)

Measure Description

Perioperative pulmonary embolism or deep vein thrombosis (secondary diagnosis) per 1,000 surgical discharges for patients ages 18 and older. All payors.

Measure Specifications

[Patient Safety Indicator #12 \(PSI 12\).](#)

Data Source

Discharge claims data

Risk Adjustment

Age group, sex and medical condition

MORTALITY: ALL CONDITIONS COMPOSITE

Data Steward

[Agency for Healthcare Research and Quality.](#)

Measure Description

In-hospital deaths per 1,000 discharges for low mortality (less than 0.5%) DRG among patients ages 18 and older, or obstetric patients. Excludes cases with trauma, cases with cancer, cases with an immunocompromised state and transfers to an acute care facility.

Measure Specifications

[Patient Safety Indicator #2 \(PSI 02\).](#)

Data Source

Discharge claims data

Risk Adjustment

Age group, sex and medical condition

PRESSURE ULCERS

Data Steward

[Agency for Healthcare Research and Quality.](#)

Measure Description

Stage III or IV pressure ulcers (secondary diagnosis) per 1,000 discharges among patients ages 18 and older. All payors.

Measure Specifications

[Patient Safety Indicator #3 \(PSI 03\).](#)

Data Source

Discharge claims data

Risk Adjustment

Age group, sex and medical condition

Managing Readmissions

For readmission technical specifications, including measure description, numerator and denominator statements, and specific ICD-9 and ICD-10 codes, please see the [HIDI Readmission Measure Specifications](#).

Price

Hospital pricing and medical billing can be complicated. The Focus on Hospitals website, www.focusonhospitals.com, allows health care consumers to compare information about the most common inpatient medical procedures and emergency department services at Missouri hospitals.

The selected pricing data categories and methodology were researched, discussed and piloted before approval by the MHA Price Transparency Work Group. The price measures are separated into two categories — Inpatient and Emergency — and include common medical procedures and services. The Inpatient data includes the 100 most prevalent statewide diagnosis related groups and is categorized using consumer-friendly terminology. Because each patient and case is unique, pricing data is displayed in ranges.

Inpatient Categories

- Nervous System
- Ear, Nose, Mouth and Throat
- Respiratory System
- Circulatory System
- Digestive System
- Hepatobiliary System/Pancreas
- Musculoskeletal/Connective Tissue
- Skin/Subcutaneous Tissue/Breast
- Endocrine/Nutritional/Metabolic
- Kidney/Urinary Tract
- Female Reproductive
- Pregnancy/Childbirth/Newborn and Other Neonates
- Blood/Related
- Neoplasms/Related
- Infection/Parasites
- Mental Disorders
- Substance Abuse
- Injury/Poisoning
- Other Factors

Median/Maximum/Minimum Charges

Charges, calculated after removing outliers from the data set

Discharge Statement

Number of discharges, calculated prior to removing outliers from the data set

Exclusions

Outliers, identified as records that fall outside of the state minimum and maximum charges, are removed from the hospital-specific data set.

Data Source

HIDI Discharge Claims Data



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