CDI Quality Measures Repository

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Note: The information and links in this resource are not inclusive of all updates, rules and citations related to reporting of CMS quality measures. It is not intended as legal, financial or other professional advice. Please refer to https://qualitynet.cms.gov for more detailed official information.

Updated 8/18/22

CMS Claims-Based Quality Measures

	Program / Measure Description	DX / Proc	Link
HVBP	**Claims-Based Measures per Hospital Value-Based Purchasing (HVBP)**		https://qualitynet.cms.gov/inpatient/hvbp
	Mortality measure specifications; supplemental files* contain ICD-10 codes for cohort inclusion, cohort exclusion, and condition categories that are risk variables. A separate downloadable Excel file is available for each condition or procedure.	AMI; COPD Heart Failure Pneumonia Stroke; CABG	https://qualitynet.cms.gov/inpatient/measures/mortality/methodology
	Mortality measure CC to ICD-10 crosswalk files*; Excel files that provide a list of ICD-10 codes applicable to each condition category with risk adjustment impact.	AMI; COPD Heart Failure Pneumonia Stroke; CABG	https://qualitynet.cms.gov/inpatient/measures/mortality/resources
	Complication measure supplemental file* contains ICD-10 codes for cohort inclusion, cohort exclusion, and condition categories that are risk variables.	THA / TKA	https://qualitynet.cms.gov/inpatient/measures/complication/methodology
	Medicare Spending per Beneficiary (MSPB); risk-adjusted using HCC methodology within each Major Diagnostic Category (MDC)	ALL MS-DRGs	https://qualitynet.cms.gov/inpatient/measures/mspb
HACRP	**Hospital-Acquired Conditions Reduction Program (HACRP)**		https://qualitynet.cms.gov/inpatient/hac
	AHRQ links to PSI-90 Data Specifications^ and Parameter Estimates for risk adjustment	PSI-90	https://qualityindicators.ahrq.gov/Modules/psi_resources.aspx#techspecs
	Elixhauser Comorbidity Software (risk adjustment)	PSI-90	https://www.hcup-us.ahrq.gov/toolssoftware/comorbidityicd10/comorbidity_icd10.jsp
	HAI measures for are chart-abstracted measures, rather than claims-based; see NHSN Patient Safety Component Manual for details.	CLABSI, CAUTI, SSI, MRSA, CDI	https://www.cdc.gov/nhsn/index.html
HRRP	**Hospital Readmission Reduction Program (HRRP)**		https://qualitynet.cms.gov/inpatient/hrrp
	Readmission measure specifications report; supplemental files* contain ICD-10 codes for cohort inclusion, cohort exclusion, and condition categories that are risk variables, as well as a list of planned readmissions per CMS algorithm. A separate downloadable Excel file is available for each condition or procedure.	AMI; COPD Heart Failure Pneumonia CABG; THA / TKA HW Readmissions	https://qualitynet.cms.gov/inpatient/measures/readmission/methodology
	CMS Quality Net Overview		https://qualitynet.cms.gov/inpatient
	Inpatient Quality Reporting (IQR)		https://qualitynet.cms.gov/inpatient/iqr
	Payment measures; risk-adjusted measure captures payments for patients across multiple care settings, services, and supplies.	30-day measure for AMI, HF, PN 90-day measure for THA/ TKA	https://qualitynet.cms.gov/inpatient/measures/payment

CMS Claims-Based Quality Measures

	Program / Measure Description	DX / Proc	Link
IQR	Payment measure specifications; supplemental files contain ICD-10 codes for cohort inclusion, cohort exclusion, and condition categories that are risk variables. A separate downloadable Excel file is available for each condition or procedure.	AMI Heart Failure Pneumonia THA / TKA	https://qualitynet.cms.gov/inpatient/measures/payment/methodology
	Payment measure CC to ICD-10 crosswalk files; Excel files that provide a list of ICD-10 codes applicable to each condition category with risk adjustment impact.	AMI Heart Failure Pneumonia THA / TKA	https://qualitynet.cms.gov/inpatient/measures/payment/resources
	Excess Days in Acute Care (EDAC); measures complement the readmission measures by also considering ED use and OBS stays following admission.		https://qualitynet.cms.gov/inpatient/measures/edac
	EDAC measure specifications report; supplemental files contain ICD-10 codes for cohort inclusion, and condition categories that are risk variables, as well as a list of planned readmissions per CMS algorithm. A separate downloadable Excel file is available for each condition.	AMI Heart Failure Pneumonia	https://qualitynet.cms.gov/inpatient/measures/edac/methodology
	EDAC measure CC to ICD-10 crosswalk files; Excel files that provide a list of ICD-10 codes applicable to each condition category with risk adjustment impact.	AMI Heart Failure Pneumonia	https://qualitynet.cms.gov/inpatient/measures/edac/resources
	Electronic clinical quality measures (eCQMs) are tools that help measure and track the quality of health care services that eligible hospitals and critical access hospitals (CAHs) provide, as generated by a provider's electronic health record (EHR). Some measures ICD-10 based and risk-adjusted per ICD-10 such as ePC-02 Cesarean Births, ePC-07 Severe Obstetric Complications. Value sets (code mapping) for various eCQM and Hybrid Measures requires (free) login.		https://www.cms.gov/Regulations-and-Guidance/Legislation/EHRIncentivePrograms/ClinicalQualityMeasures https://ecqi.healthit.gov/ https://vsac.nlm.nih.gov/valueset/expansions?pr=ecqm
	Hospital Quality Measure Results Publicly Displayed		
	CMS Care Compare: Complications & Deaths, Unplanned hospital visits, Payment & value of care #		https://www.medicare.gov/care-compare/
	Hospital Safety Grade: Claims measures from PSI and HAC		https://www.hospitalsafetygrade.org/

*Measure supplemental files and ICD-10 crosswalks updated in April

^PSI specifications updated in July

#Care Compare updates inpatient claims-based measure results in July; MSPB updates annually in January

CMS Claims-Based, Risk-Adjusted Quality Measures

Measure	Cohort	Notes	HVBP	HRRP	Care Compare	*Star Rating
AMI	PDX: Type 1 MI (STEMI or NSTEMI) Excluded from measure if other MI type or AMI unspecified. See OCG I.C.9.e.5).	Risk adjusted by both PDX and SDX: anterior wall MI risk higher than other locations; STEMI risk higher than NSTEMI. See OCG I.C.9.e.1) STEMI vs NSTEMI.	MORT	READ	MORT READ EDAC PYMT	MORT EDAC
CABG	Isolated CABG only Excluded from measure if also valve procedures, most other open heart procedures & non-cardiac OR procedures	Coronary atherosclerosis due to lipid rich plaque or calcified coronary lesion are reportable when documented with coronary atherosclerosis; impact risk adjustment for CABG measure.	MORT	READ	MORT READ	MORT READ
COPD	PDX: COPD, Emphysema or Chronic Bronchitis PDX: Respiratory Failure (or Resp Distress, Resp Arrest) w/ J44.0 or J44.1 as SDX	ICD-10-PCS code for BiPAP included in risk adjustment Asthma impacts risk adjustment (need type or exacerbation to report with COPD - see AHA Coding Clinic 1st Quarter 2017)	MORT	READ	MORT READ	MORT READ
PN	PDX: Pneumonia PDX Sepsis w/ pneumonia secondary Excluded from measure if severe sepsis POA	See OCG I.C.1.d. for documentation requirements and reporting of severe sepsis.	MORT	READ	MORT READ EDAC PYMT	MORT EDAC
HF	PDX: Heart Failure; Hypertensive heart disease w/ HF Excluded from measure if external heart assist (including short-term intraoperative), implantable heart assist, heart transplant within prior 12 months	If fluid overload is noncardiogenic (such as when associated with dialysis noncompliance), is separately reported; verify PDX.	MORT	READ	MORT READ EDAC PYMT	MORT EDAC

CMS Claims-Based, Risk-Adjusted Quality Measures

Measure	Cohort	Notes	HVBP	HRRP	Care Compare	*Star Rating
STK	PDX: Cerebral infarction due to thrombosis, embolism, occlusion or stenosis; Cerebral infarction – unspecified Cerebral ischemia Acute cerebrovascular insufficiency Cerebral artery syndrome Lacunar syndrome Brain stem or cerebellar stroke syndrome Excluded from measure if hemorrhagic stroke PDX.	Initial NIHSS code used in risk adjustment (if not reported among top 25 dx codes, CMS presumes NIHSS zero. Are all deficits reported? Monoplegia and some other non-CC deficits still impact measure risk adjustment.	NA	NA	MORT	MORT
THA / TKA	Primary hip / knee replacement Excluded from measure if hip resurfacing, hemiarthroplasty, arthroplasty revision; replacement due to fracture, > 1 joint replaced	Complications: Within 7 days: Type 1 MI, pneumonia, sepsis / septic shock Within 30 days: Surgical site bleeding, pulmonary embolism, death Within 90 days: Mechanical complication, periprosthetic joint infection / wound inf	COMP	READ	COMP READ PYMT	COMP READ

Global
Notes   Patients with COVID are excluded from index admission

---COVID and history of COVID impact risk adjustment
--Risk adjustment only applied for conditions Present on Admission (Y)

EDAC = Excess Days in Acute Care (Hospital Return Days); includes IP days, OBS days and ED visits within the 30-day window;

Patient Safety Indicators (PSI) Reference

PSI	Condition w/ POA "N" or "U"	Measure excludes patients with:	Review Notes
#2	In-hospital deaths in low mortality MS-DRGs DRG list revised annually	Any diagnosis of trauma, cancer, an immunocompromised state; MDC 15 NB	Ensure PDX is accurate for low mortality DRGs Z66 DNR now used in risk adjustment (7/21)
#3*^	Pressure ulcer (stage III, IV or unstageable) *See AHA Coding Clinic 4th quarter 2017 regarding unstageable pressure ulcers; OCG I.C.12.a. pressure ulcer stage*	PDX or POA Y/W of Pressure Ulcer (stage III, IV, DTI or unstageable) when at the same anatomic site Severe burns, exfoliative skin disorders; MDC 14 OB; MDC 15 NB; LOS < 3 days *(Note – deep tissue injury no longer codes as unstageable)*	Clinically validate pressure ulcer documentation. Ulcer may diabetic (PVD/neuropathic), venous/stasis or arterial/ischemic
#4 +^	Deaths among surgical discharges with serious treatable conditions *Evaluated within this hierarchy:* Shock / Cardiac Arrest Sepsis Pneumonia GI hemorrhage or acute ulcer PE / DVT Elective admission or procedure w/in 2 days of admission	Shock exclusions: PDX shock or cardiac arrest, trauma, hemorrhage, GI bleed; MDC 4 respiratory; MDC 5 circulatory. Sepsis exclusion: infection PDX. Pneumonia exclusions: Surgery for lung CA, MDC 4 respiratory, respiratory complications as PDX, viral pneumonia or pneumonia w/ influenza. GI bleed exclusions: PDX trauma, alcoholism, anemia, GI bleed or acute ulcer; MDC 6 digestive, MDC 7 hepatobiliary PE *does not include single subsegmental PE* Hospice at admission; MDC 15 NB	Carefully evaluate documentation for presence of exclusions. Clinically validate shock type, sepsis, type of pneumonia. -Shock seldom PDX; see *AHA Coding Clinic 2nd Quarter 2019* re PDX hypovolemic shock -Sepsis group includes severe sepsis & septic shock -GI Bleed includes nonspecific GI hemorrhage, melena, hematemesis as well as combo codes for GI conditions with bleed; note *AHA Coding Clinic 3rd Quarter 2017, 3rd Quarter 2018*, and OCG I.A.15 for instructions linking bleed to GI condition. Z66 DNR now used in risk adjustment (7/21)
#5	Retained surgical item	PDX or POA Y/W of Retained / unretrieved fragment MDC 15 NB *See AHA Coding Clinic 3rd Quarter 2014 to define when surgery ends; 1st Quarter 2014 regarding objects*	Ensure accurate POA status. Be aware of observation/bedded outpatient status conversions to inpatient status
#6*^	Iatrogenic pneumothorax (only J95.811)	PDX or POA Y/W of Iatrogenic pneumothorax Chest trauma, pleural effusion, thoracic surgery, lung biopsy, diaphragmatic repair, cardiac procedure; MDC 14 OB, MDC 15 NB *Postoperative air leak not included*	Review for spontaneous pneumothorax d/t an underlying condition. Pneumothorax d/t emphysema is coded as emphysema PDX d/t code first instruction under J93.12
#7	CLABSI (only T80.211A)	PDX or POA Y/W of CLABSI LOS < 2 days; immunocompromised; cancer MDC 15 NB	Immunodeficiency (D84.-) in exclusion criteria. Ensure documentation is present when appropriate

Patient Safety Indicators (PSI) Reference

PSI	Condition w/ POA "N" or "U"	Measure excludes patients with:	Review Notes
#8*^	In-hospital fall with hip fracture *(includes osteoporotic or traumatic fracture but not intraoperative fracture)*	PDX or SDX POA of hip fracture or periprosthetic fracture; MDC 15	Watch PoO; see *AHA Coding Clinic 4th Quarter 2019* / OCG I.C.19.b.3) iatrogenic injuries
#9*^	Postoperative hemorrhage / hematoma w/ control of hemorrhage or drainage of hematoma following surgery	PDX or POA Y/W of Postop hemorrhage or hematoma Exclude if only procedure performed was control of the hemorrhage or draining of hematoma. Coagulation disorder excludes patient (including hemorrhagic disorder due to extrinsic anticoagulant); MDC 14 OB, MDC 15 NB *Measure does not include intraoperative hemorrhage / hematoma or postop seroma.*	Review for hereditary or acquired coagulation disorders; aplastic anemia, pancytopenia, thrombocytopenia, ITP, adverse effect of anticoagulation / hemorrhagic disorder due to extrinsic circulating anticoagulants, DIC, acquired hemophilia.D8
#10*^	Postop AKI requiring dialysis in surgical discharge Elective admit type	PDX or POA Y/W of: Acute renal failure, cardiac arrest, cardiac dysrhythmia, shock, CKD 5, ESRD, urinary tract obstruction Dialysis on or before same day as 1st OR proc; MDC 14 OB, MDC 15 NB	Validate AKI vs CKD; ensure dialysis DOS is correct
#11*^	Postop respiratory failure Prolonged postop vent (> 96 hr) when last date of vent code is 0 or more days afrter 1st major OR procedure Last date of postop vent (24-96 hr) $\geq$ 2 days after 1st major OR procedure Last date of reintubation $\geq$ 1 day postop Surgical discharge; Elective admit type	PDX or POA Y/W of Acute respiratory failure Neuromuscular disorders, malignant hyperthermia; laryngeal / pharyngeal or craniofacial surgery; esophageal resection; lung CA or lung transplant; degenerative neuro disorders MDC 4 Respiratory, MDC 14 OB, MDC 15 NB *Does not include acute postop pulmonary insufficiency or acute respiratory failure that is not "postoperative", or when adverse effect of anesthesia.*	Know the difference between acute postop respiratory failure vs acute postop pulmonary insufficiency vs acute postop respiratory insufficiency. Decrease denial risk: look for inconsistent documentation. Ensure reintubation DOS and vent hours are correct.
#12*^	Periop PE / DVT in surgical discharge *Does not include single subsegmental PE*	PDX or POA Y/W of PE / DVT Acute brain or spinal injury If only OR procedure is pulmonary arterial thrombectomy ECMO; MDC 14 OB, MDC 15 NB *Superficial vessels not included, nor chronic PE / DVT*	Ensure POA, acuity / chronicity, prophylaxis vs treatment; accurate vessel coded

Patient Safety Indicators (PSI) Reference

PSI	Condition w/ POA "N" or "U"	Measure excludes patients with:	Review Notes
#13*^	Postop sepsis (all sepsis codes) Surgical discharge; Elective admit type	PDX or POA Y/W of Infection; Pressure ulcer stage 3-4 or unspecified included with infections MDC 14 OB, MDC 15 NB	Clinically validate sepsis, look for inconsistent documentation of bacteremia vs sepsis, validate pressure ulcer stage Risk adjustment for highest immune risk category; level 3 of 4 includes transplant status, transplant complications (see *AHA Coding Clinic 2nd Quarter 2019*), severe malnutrition, immunodeficiency, etc. Does documentation support immunodeficiency associated with medication or condition?
#14*^	Postop wound dehiscence (internal) AND postop re-closures in abdominopelvic surgery	PDX or POA Y/Q of Wound dehiscence LOS < 2 days; MDC 14 OB, MDC 15 NB *Dehiscence of external wound not included*	Consider depth of dehiscence: superficial/internal
#15*^	Accidental puncture / laceration during abdominopelvic surgery PSI only when requires 2nd procedure > 1 day postop.	PDX or POA Y/Q of Accidental puncture / laceration MDC 14 OB, MDC 15 NB	See *AHA Coding Clinic 1st Quarter 2021 and 1st Quarter 2022* regarding intraoperative tears, reportable if the degree of the tear alters the course of the surgery.
#17	Birth Trauma Injury	Preterm infants < 2000 gm; osteogenesis imperfecta	Verify trauma was clinically significant and meets criteria for reportable condition.
#18	OB Trauma, vaginal delivery w/ instrumentation 3rd or 4th degree OB laceration	None	Clinically validate the laceration degree; watch episiotomy vs tear.
#19	OB Trauma, vaginal delivery w/o instrumentation 3rd or 4th degree OB laceration	None	Clinically validate the laceration degree; watch episiotomy vs tear.

*Component of PSI-90; included in HAC Reduction Program; composite reported at CMS Care Compare

+Reported at CMS Care Compare

^Included in CMS star rating

Quality Measure Timeline

January   Medicare Spending per Beneficiary (MSPB) updates to Care Compare

April   Quality measure files defining cohorts (Mort, Comp, Readm, etc.) and ICD-10 crosswalk file updates posted to Quality Net
IPPS proposed rule describes revisions / proposals to HVBP, HRRP, HACRP, IQR when applicable

July   PSI specification updates posted to AHRQ

July   IP claims-based measure results posted to Care Compare

August   IPPS final rule describes revisions to HVBP, HRRP, HACRP, IQR when applicable