

To: Hospital CFOs  
Cc: Hospital Quality Liaisons, Case-Mix Liaisons  
From: HSCRC Quality Team  
Date: February 4, 2025  
Re: Maryland Rate Year 2027 Quality Based Reimbursement Program  
Measure Standards, Scaling Determination, and other  
Methodology Updates

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This memo summarizes the Quality Based Reimbursement (QBR) Program that will impact hospital rates in Rate Year (RY) 2027.

## INTRODUCTION

On December 11, 2024, the Commission approved the staff recommendations for updating the Quality-Based Reimbursement (QBR) Program for RY 2027. Consistent with the RY 202 policy, the preset scale for RY 2027 uses a full distribution of potential scores (scale of 0-80 percent), and a score cut point of 41 percent for rewards and penalties. The recommendation also included a provision to retrospectively evaluate the 41 percent reward-penalty cut point using more recent data to calculate national average score for RY25 and RY26; staff further notes that, based on more analyses on the impact of pre-COVID performance standards on national hospital performance, the cut point for RY25 QBR requires an adjustment from 41 to 32 percent, which was implemented as part of Rate Orders released in January 2025. The maximum reward for QBR will remain at 2%, and the maximum penalty remains at 2%. The preset scale is included as Appendix A of this memorandum.

The [RY 2027 Policy](#) continues to incorporate QBR Redesign Subgroup recommendations made in 2021 and outlines strategies for future work to respond to concerns regarding Maryland's lagged performance or raised by Centers for Medicare and Medicaid Services (CMS) in

**Joshua Sharfstein, MD**  
Chairman

**Joseph Antos, PhD**  
Vice-Chairman

**James N. Elliott, MD**

**Ricardo R. Johnson**

**Maulik Joshi, DrPH**

**Adam Kane, Esq**

**Nicki McCann, JD**

**Jonathan Kromm, PhD**  
Executive Director

**William Henderson**  
Director  
Medical Economics & Data Analytics

**Allan Pack**  
Director  
Population-Based Methodologies

**Gerard J. Schmith**  
Director  
Revenue & Regulation Compliance

**Claudine Williams**  
Director  
Healthcare Data Management & Integrity

response to Maryland's annual QBR exemption requests. The changes target better performance on Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS), Emergency Department Length of Stay (ED LOS), and Timely Follow Up (TFU) disparities in the Person and Community Engagement (PCE) domain; of note, the recommendations include incentives for complete and expedited digital quality measures reporting with these measures used for monitoring purposes in advance of future consideration for adoption in the QBR payment program.

The approved RY2027 recommendations are as follows:

1. Maintain Domain Weighting as follows for determining hospitals' overall performance scores:  
Person and Community Engagement (PCE) - 60 percent, Safety (NHSN measures) - 30 percent ,  
Clinical Care - 10 percent.
  - a. Within the PCE domain, weight the measures as follows:
    - i. HCAHPS Top Box: 33.33 Percent
    - ii. HCAHPS Consistency: 16.67 percent
    - iii. HCAHPS Linear: 16.67 percent
    - iv. Timely Follow-Up for Medicare: 5.56 percent
    - v. Timely Follow-Up for Medicaid: 5.56 percent
    - vi. Disparities in Timely Follow-Up for Medicare: 5.56 percent
    - vii. Emergency Department Length of Stay: 16.67 percent
  - b. Within the Safety domain, weight each of the measures equally (i.e., 30 percent divided by number of measures).
  - c. Within the Clinical Care domain, weight the inpatient and 30-day mortality measure equally.
2. With regard to monitoring reports to track hospital performance:
  - a. Consider the feasibility of developing a Timely Follow-Up for Behavioral Health measure.
  - b. Disseminate Sepsis Dashboard.
  - c. Develop tools to monitor HCAHPS performance by patient and hospital characteristics.
3. Implement an HCAHPS learning collaborative with hospitals.
4. Continue collaboration with CRISP and other partners on infrastructure to collect hospital Electronic Clinical Quality Measures (eCQM) and Core Clinical Data Elements (CCDE) for hybrid measures; add a bonus incentive of \$150,000 in hospital rates for hospitals that fully meet the

State-specified expedited reporting timeline, provided that all required measures are reported.

5. Continue to hold 2 percent of inpatient revenue at-risk (rewards and penalties) and maintain the pre-set revenue adjustment scale of 0 to 80 percent with cut-point at 41 percent.
  - a. Retrospectively evaluate 41 percent cut point using more recent data to calculate national average score for RY 2026 and RY 2027.
  - b. Based on concurrent analysis of national hospital performance, adjust the RY25 QBR cut point to 32% to reflect the impact of using pre-COVID performance standards and to ensure that Maryland hospitals are penalized or rewarded relative to national performance.

## EXEMPTIONS FROM CMS HOSPITAL QUALITY PROGRAMS

Exemptions from the CMS hospital quality programs enable Maryland to operate programs with incremental revenue adjustment scales established prospectively, wherein all hospitals have the opportunity to earn rewards based on their performance. As required, the HSCRC has requested and received approvals for Value-Based Purchasing (VBP) exemptions since FY 2013, and for the HAC Reduction and Hospital Readmission Reduction Programs since FY 2021 (with inception of the TCOC model). CMS has approved Maryland's exemption request for the FY 2025 quality programs allowing the state to continue to operate the QBR, Maryland Hospital Acquired Conditions, and Readmission Reduction Incentive programs.

In response to the FY 2025 VBP exemption request, CMS' approval letter notes that Maryland's focus needs to continue on HCAHPS performance improvement (including disparities therein) and extended ED LOS in the PCE domain; the letter also notes that the state should continue to broaden our focus of quality assessment to post-acute care, outpatient hospital care and other non-hospital settings, the Medicaid population, and maternal child health concerns.

## RY 2027 QBR DOMAIN WEIGHTS, MEASURES, AND MONITORING UPDATES

The updated final policy domain and measure weight details are provided below in Figure 1 in comparison to the CMS VBP program.

**Figure 1. QBR RY 2026 Domain and Measure Weights and Data Sources**

<b>Domains and Measures</b>	<b>QBR Overall Domain and Measure Weights</b>	<b>CMS VBP Measures</b>
<b>PCE Domain</b>	<b>60%</b>	<b>25%</b>
HCAHPS Top Box Scores	20%	✓
HCAHPS Consistency	10%	✓
HCAHPS Linear Score	10%	N/A
ED Length of Stay	10%	N/A
1) TFU Medicare (CMS CCLF Claims) 2) Medicaid (Medicaid Claims), 3) Medicare Disparity gap CMS (CCLF Claims and HSCRC Case Mix)	10% total (1/3 allocated for each measure)	N/A
<b>Clinical Care Domain</b>	<b>10%</b>	<b>25%</b>
Inpatient Mortality (HSCRC Case Mix)	5%	N/A
30-Day All-payer Mortality (HSCRC Case Mix and Maryland Vital Statistics Death Records)	5%	N/A
30-Day Medicare Condition-specific Mortality (Medicare Claims)	N/A	✓
<b>Safety Domain</b>	<b>30%</b>	<b>25%</b>
CAUTI (Chart abstracted CMS Care Compare)	5%	✓
C. Diff (Chart abstracted CMS Care Compare)	5%	✓
SSI, Hysterectomy and Colon (Chart abstracted CMS Care Compare)	5%	✓
CLABSI (Chart abstracted CMS Care Compare)	5%	✓
MRSA(Chart abstracted CMS Care Compare)	5%	✓
All-payer PSI 90 (HSCRC Case Mix)	5%	N/A
Severe Sepsis and Septic Shock: Management Bundle (Chart abstracted, CMS Care Compare)	N/A	✓

Domains and Measures	QBR Overall Domain and Measure Weights	CMS VBP Measures
Medicare Spending Per Beneficiary	N/A	25%

The updated policy also notes that the following data would be monitored:

- Timely Follow-Up for Behavioral Health inpatient episode (report in development)
- Sepsis Dashboard: Sepsis mortality, Sep-1 measure–Early Management Bundle, Severe Sepsis/Septic Shock (report in development)
- Digital Measures: Electronic Clinical Quality Measures (eCQM) and Hybrid Measures.

HSCRC staff will notify hospitals as monitoring reports are implemented and available.

### ***Digital Measures Reporting Requirements***

The updated policy included a recommendation for hospitals to continue to submit digital quality measures data to HSCRC with a bonus of \$150K awarded to hospitals that fully comply with the RY 2027 measures submission and expedited reporting timelines. HSCRC and CMS require submission of QRDA I files for the eCQMs and Hybrid measure Core Clinical Data Elements (CCDE) as listed below in Figure 2. For additional information about Maryland's work in this area, please refer to the **updated memorandum issued by HSCRC February 2025 outlining CY 2025 Digital Measures reporting requirements** distributed to Maryland hospitals and uploaded to the HSCRC digital quality measures data page on the [CRISP website](#).



**Figure 2. CMS-Maryland Digital Measures/ eCQM Reporting Measures**

Reporting Period	CMS Measures	Maryland Measures
CY 2025	<b>Three required eCMQs-</b> -Safe Use of Opioids -Cesarean Birth -Severe Obstetric Complications (SOC)  Three self-selected eCQMs	<b>Required eCQMs-</b> -Safe Use of Opioids -hypoglycemia -hyperglycemia -Cesarean Birth -SOC (risk adjusted rates in CRISP July 2025)  Two self-selected eCQMs
July 2024-June 2025	CCDE for two hybrid measures for Medicare: -30-day mortality -30-day readmissions	CCDE for two hybrid measures for Medicare (required) and for all-payer for patients aged 18 and older: -30-day mortality -30-day readmissions
July 2025-June 2026	CCDE for two hybrid measures for Medicare: -30-day mortality -30-day readmissions	CCDE for two hybrid measures for Medicare and for all-payer for patients aged 18 and older: -30-day mortality -30-day readmissions

Hospitals that do not qualify for the (PC-02 and PC-07) obstetric measures must submit QRDA-1 files for two additional [2025 CMS-specified eCQM measures](#). In the case of self-selected measures, hospitals must commit to reporting the same measures for each of the four quarters in the reporting period.

#### **QBR MEASUREMENT PERIODS**

The base and performance measurement periods used for the QBR program for RY 2027 are illustrated below in Figure 3.

Figure 3. QBR RY 2027 Base and Performance Periods

Rate Year (Maryland Fiscal Year)	Q3-22	Q4-22	Q1-23	Q2-23	Q3-23	Q4-23	Q1-24	Q2-24	Q3-24	Q4-24	Q1-25	Q2-25	Q3-25	Q4-25	Q1-26	Q2-26	Q3-26	Q4-26	Q1-27	Q2-27	Q3-27	Q4-27
Calendar Year	Q1-22	Q2-22	Q3-22	Q4-22	Q1-23	Q2-23	Q3-23	Q4-23	Q1-24	Q2-24	Q3-24	Q4-24	Q1-25	Q2-25	Q3-25	Q4-25	Q1-26	Q2-26	Q3-26	Q4-26	Q1-27	Q2-27
Quality Based Reimbursement Program (QBR)					Base Period: Hospital Compare (HCAHPS measures, All NHSN Measures)							Performance Period: Hospital Compare (HCAHPS measures, All NHSN Measures)							Rate Year Impacted by QBR Results			
							Base Period: QBR IP and 30- day Mortality, PSI-90, Timely Follow-up Chronic Conditions (Medicare, Medicaid and w/in Hospital Disparity Reduction)						Performance Period: QBR IP and 30-day Mortality, PSI-90, Follow-up Chronic Conditions (Medicare, Medicaid and w/in Hospital Disparity Reduction)									
									Base Period: Emergency Department Length of Stay (Admitted Patients)				Performance Period: Emergency Department Length of Stay (Admitted Patients)									

## MARYLAND EXTRAORDINARY CIRCUMSTANCES EXCEPTION PROCESS

HSCRC notes that CMS has developed an Extraordinary Circumstances Exception (ECE) process for hospitals under the Inpatient Prospective Payment System (IPPS) that experience circumstances beyond their control that impacts the hospital's ability to meet quality reporting or payment program requirements. Since the CMS ECE process is not applicable for Maryland hospitals, HSCRC has developed a similar process for Maryland facilities under the purview of the HSCRC Rate Setting system to request an exception from HSCRC or CMS quality reporting and payment program requirements due to extraordinary circumstances beyond the control of the facility. This process and form may be found [here](#) on the HSCRC website.

## QBR SCORE CALCULATIONS AND PERFORMANCE STANDARDS FOR RY 2027

To the extent possible, HSCRC continues to align the QBR program data, scoring calculations, measures list and performance standards with the VBP program. Key points regarding this methodology are outlined below.

- HSCRC will use the data submitted to CMS for the Inpatient Quality Reporting program and posted to Care Compare, formerly Hospital Compare, for calculating hospital performance scores for all measures with exception of: the in-hospital and 30-day mortality measure and the PSI-90 all-payer measure, which are calculated using HSCRC case-mix data; and, the follow-up after discharge for acute exacerbation of chronic conditions, calculated from Medicare Claims and Claims-Line Feed (CCLF) and Medicaid claims data.
  - NOTE: If NHSN data are unavailable on CMS Care Compare for the relevant time periods for some or all hospitals, the HSCRC may obtain these data directly from CMS, or may download the data directly from the NHSN by MHCC. Results from MHCC may be pulled at a different time and may not match CMS data.
- CMS rules will be used when possible for minimum measure requirements for scoring a domain. HSCRC will proportionally readjust domain weighting if a measurement domain is missing for a hospital. Hospitals must be eligible for a score in the HCAHPS domain (i.e., must have at least 100 completed surveys in the performance period) to be included in the program.



- Timey Follow Up for Acute Exacerbations of Chronic Conditions—Staff notes that the TFU measure specifications were updated in 2024 and were approved by the CMS-designated Partnership for Quality Measurement. The updated specifications will be adopted for the RY 2027 QBR program; and include modifications in the follow up times for some conditions as illustrated below.
  1. Hypertension: Follow up within 14 days of the date of discharge for high-acuity patients or within 30 days for medium-acuity patients
  2. Asthma: Follow up within 14 days of the date of discharge
  3. Heart Failure: Follow up within 14 days of the date of discharge
  4. Coronary Artery Disease: Follow up within 7 days of the date of discharge for high-acuity patients or within 6 weeks for low-acuity patients
  5. Chronic Obstructive Pulmonary Disease: Follow up within 30 days of the date of discharge
  6. Diabetes: Follow up within 14 days of the date of discharge for high-acuity patients

[These specifications](#) will be used for the CY 2025 TFU performance period.

- Mortality—hospital Inpatient and 30-day all-payer mortality summary reports and case-level data are provided to hospitals monthly based on preliminary data and quarterly based on final data. Reports are available on the CRS Portal. Appendix B contains the specifications for the Maryland Mortality measures.
- For hospitals with measures that have no data in the base period, staff reserves the right to assess hospitals on attainment-only, since the HSCRC will be unable to calculate improvement scores.
- For hospitals that have measures with data missing from Care Compare for the base and performance periods, staff reserves the right to give hospitals a score of zero for these measures. It is imperative, therefore, that hospitals review their data as soon as it is available and contact CMS with any concerns related to preview data or issues with posting data to Care Compare, and to alert HSCRC staff in a timely manner if issues cannot be resolved.

- With the exception of the performance standards for 30-Day All-Payer Mortality and ED LOS, each of the Safety, Clinical Care, and Person and Community Engagement measure standards for RY 2027 are listed below in Figure 4.
  - NOTE: In prior years, CMS has adjusted the VBP thresholds and benchmarks mid-year for certain measures. Should any VBP measure included in the RY 2027 QBR program be updated, HSCRC will notify industry and provide an updated calculation sheet at that time.
- Staff anticipate that the following will be provided via the CRISP Reporting Services (CRS) Portal no later than July, with some components published sooner:
  - The calculation workbook contains a worksheet for each domain for hospitals to use to calculate and monitor their scores, current (included) IP mortality DRGs, and associated thresholds/benchmarks for each measure.

**Figure 4. QBR Performance Standards for RY 2027**

<b><u>Safety Domain</u></b>		
<b>Previously Established and Newly Established Performance Standards for the FY 2027 Program Year</b>		
<b>Measure Short Name</b>	<b>Achievement Threshold</b>	<b>Benchmark</b>
<b>Safety Domain</b>		
CMS PSI 90*^ (All Payer)	0.8702	0.6566
CAUTI*+	0.5	0.0
CLABSI*+	0.608	0.0
CDI*+	0.351	0.0
MRSA Bacteremia*+	0.65	0.0
Colon and Abd Hysterectomy SSI*+	0.735 0.881	0.0 0.0

\* Lower values represent better performance.

^Calculated using July 1, 2023-June 30, 2024 data.

# Previously established performance standards

+ The performance standards displayed in this table for the CDC NHSN measures (CAUTI, CLABSI, CDI, MRSA Bacteremia, and Colon and Abdominal Hysterectomy SSI) were published in CMS FY 2025 IPPS Final Rule and calculated using four quarters of CY 2023 data.

<b><u>Clinical Care Domain</u></b>		
Inpatient Mortality	95.5530	97.3720
30-Day All Payer Mortality Measure	96.2305	96.7185

**Person and Community Engagement- HCAMPS Top Box**

**TABLE V.L.-09: ESTIMATED PERFORMANCE STANDARDS FOR THE FY 2027 PROGRAM YEAR: PERSON AND COMMUNITY ENGAGEMENT DOMAIN**

<b>TABLE V.L.-09: ESTIMATED PERFORMANCE STANDARDS FOR THE FY 2027 PROGRAM YEAR: PERSON AND COMMUNITY ENGAGEMENT DOMAIN</b>			
<b>HCAHPS Survey Dimension<sup>†</sup></b>	<b>Floor (minimum)</b>	<b>Achievement Threshold (50<sup>th</sup> percentile)</b>	<b>Benchmark (mean of top decile)</b>
Communication with Nurses	51.40	77.32	86.30
Communication with Doctors	51.59	77.53	86.29
Responsiveness of Hospital Staff**	X	X	X
Communication about Medicines	35.92	58.08	70.11
Hospital Cleanliness & Quietness	33.41	63.37	77.73
Discharge Information	67.47	86.02	91.48
Cure Transition**	X	X	X
Overall Rating of Hospital	34.52	68.79	83.97

<sup>†</sup> Includes IPPS hospitals with 100+ completed surveys from patients discharged between January 2023 and December 2023 (2,756 hospitals).

\*The newly established performance standards displayed in this table were calculated using CY 2023 data. Data include IPPS hospitals with 100+ completed surveys from patients discharged between January 2023 and December 2023.

\*\* For FY 2027, we are finalizing the proposal to only score on the six dimensions of the HCAHPS Survey measure that will remain unchanged from the current version until the updates to the survey measure are adopted beginning with FY 2030. Therefore, we are not reporting estimated performance standards for dimensions that will not be scored.

<b><u>Person and Community Engagement- HCAHPS Linear Measure</u></b>	<b>Threshold</b>	<b>Benchmark</b>
Nurse Communication	91	93.6015
Doctor Communication	90	93.6254
Communication about Medication	75	81.6865

<b><u>Person and Community Engagement Domain–Timely Follow Up</u></b>		
	<b>Achievement Threshold</b>	<b>Benchmark</b>
Follow Up after Exacerbation for Chronic Conditions- <i>Medicare</i>	TBD	TBD
Follow Up after Exacerbation for Chronic Conditions- <i>Medicaid</i>	TBD	TBD
Follow Up after Exacerbation for Chronic Conditions- <i>Medicare Disparity Gap</i>	TBD	TBD

<b><u>Person and Community Engagement Domain–ED Length of Stay</u></b>		
	<b>Achievement Threshold</b>	<b>Benchmark</b>
ED LOS for Admitted Patients	TBD	TBD

For any questions, please email [hscrc.quality@maryland.gov](mailto:hscrc.quality@maryland.gov).

## Appendix A: RY 2027 QBR Preset Payment Scale

Final QBR Score	QBR Preset Scale
<b>Scores less than or equal to</b>	<b>0%</b>
	<b>-2.00%</b>
	1%
	-1.95%
	2%
	-1.90%
	3%
	-1.85%
	4%
	-1.80%
	5%
	-1.76%
	6%
	-1.71%
	7%
	-1.66%
	8%
	-1.61%
	9%
	-1.56%
	10%
	-1.51%
	11%
	-1.46%
	12%
	-1.41%
	13%
	-1.37%
	14%
	-1.32%
	15%
	-1.27%
	16%
	-1.22%
	17%
	-1.17%
	18%
	-1.12%
	19%
	-1.07%
	20%
	-1.02%
	21%
	-0.98%
	22%
	-0.93%
	23%
	-0.88%
	24%
	-0.83%
	25%
	-0.78%
	26%
	-0.73%
	27%
	-0.68%
	28%
	-0.63%
	29%
	-0.59%
	30%
	-0.54%
	31%
	-0.49%
	32%
	-0.44%
	33%
	-0.39%
	34%
	-0.34%
	35%
	-0.29%
	36%
	-0.24%
	37%
	-0.20%
	38%
	-0.15%
	39%
	-0.10%
	40%
	-0.05%
	41%
	0.00%

Final QBR Score	QBR Preset Scale
42%	0.05%
43%	0.10%
44%	0.15%
45%	0.20%
46%	0.26%
47%	0.31%
48%	0.36%
49%	0.41%
50%	0.46%
51%	0.51%
52%	0.56%
53%	0.62%
54%	0.67%
55%	0.72%
56%	0.77%
57%	0.82%
58%	0.87%
59%	0.92%
60%	0.97%
61%	1.03%
62%	1.08%
63%	1.13%
64%	1.18%
65%	1.23%
66%	1.28%
67%	1.33%
68%	1.38%
69%	1.44%
70%	1.49%
71%	1.54%
72%	1.59%
73%	1.64%
74%	1.69%
75%	1.74%
76%	1.79%
77%	1.85%
78%	1.90%
79%	1.95%
80%	2.00%
<b>Scores greater than or equal to</b>	<b>80%</b>
	<b>2.00%</b>

\*For RY 2027, hospitals earning a score of less than 41% (0.41) will receive a penalty, and hospitals earning a score of 0.42 and above will receive a reward. Any hospital earning a score of 0.80 or higher will receive the maximum reward of 2% of their inpatient revenue. This “cut point” will be re-evaluated retrospectively

## Appendix B: RY 2025 Maryland Mortality Measure Specifications

### Mortality Reporting

Hospitals will be provided with summary level quarterly reports based on preliminary and final HSCRC case-mix data. In addition, case-level detailed files will be provided to each hospital. These summary and case level reports will be posted through the CRISP Reporting Services portal.

### Specifications: Inpatient Mortality Rates using 3M, Health Information Systems Risk of Mortality Adjustment

As 3M Risk of Mortality (ROM) categories--which comprise four levels similar to severity of illness classifications used in the All Patient Refined Diagnosis Related Group (APR DRG) payment classification system-- account for risk adjustment for deaths in the hospital, the ROM may provide an appropriate measure of hospital mortality with a broader focus. 3M APR DRGs and ROM are also used as the risk adjustment methodology for other mortality measures, such as those developed by the Agency for Healthcare Research and Quality.

### Exclusions

The following categories are removed from the denominators and therefore not included in the mortality rate calculations (excluded from both mortality counts and denominator):

1. APR-DRGs that are NOT in the 80% of cumulative deaths after removing all the exclusions. DRGs are chosen without palliative care discharges and then discharges with palliative care for selected DRGs are added back. All DRGs in the measure that have same number of observed deaths as the DRG at the 80 percent cut point are included.
2. APR-DRG ROM with a state-wide cell sizes below 20 after removing all the exclusions
3. Rehab hospitals (provider IDs that start with 213)
4. Hospitals without HCAHPS (RY 2021: Levindale, UMROI, McCready)
5. Transfers to other acute hospitals (PAT\_DISP=discharge destination 02,05)
6. Age and sex unknown
7. Hospice (Daily service of 10, DAILYSER=10)
8. University of Maryland Shock Trauma Patients (daily service=02, and trauma days>0)
9. Left Against Medical Advice admissions: (PAT\_DISP=07).
10. Trauma and Burn admissions: Admissions for multiple significant trauma (MDC=25) or extensive 3rd degree burn (APR DRG = 841 "Extensive 3rd degree burns with skin graft" or 843 "Extensive 3rd degree or full thickness burns w/o skin graft")



11. Error DRG: Admissions assigned to an error DRG 955 or 956
12. Other DRG: Admissions assigned to DRG 589 (Neonate BWT <500G or GA <24 weeks), 591 (NEONATE BIRTHWT 500-749G W/O MAJOR PROCEDURE), 196 (cardiac arrest) due to high risk of mortality in these conditions
13. "APR DRG 004 (Tracheostomy w MV 96+ hours w extensive procedure or ECMO); starting in RY 2022, remove discharges with primary or secondary procedure code for ECMO ("5A1522F", "5A1522G", "5A1522H", "5A15223"))
14. Medical (non-surgical) Malignancy admissions: Medical admissions with a principal diagnosis of a major metastatic malignancy (see calculation sheet for list of medical malignancies)

### Adjustments

The Maryland inpatient hospital mortality measure was developed in conjunction with the Performance Measurement workgroup and other stakeholders. Based on this stakeholder input mortality is assessed using a regression model that adjusts for the following variables:

1. Admission APR DRG with Risk of Mortality (ROM)
2. Age (as a continuous variable) and age squared
3. Gender
4. Palliative Care Status (ICD-10 code = Z51.5)
5. Transfers from another institution defined as source of admission codes (SOURCADM) of  
04 = FROM (TRANSFER) A DIFFERENT HOSPITAL FACILITY (INCLUDES TRANSFERS FROM ANOTHER ACUTE CARE HOSPITAL (ANY UNIT), FREESTANDING EMERGENCY DEPARTMENT, MIEMSS-DESIGNATED FACILITY). NOT LIMITED TO ONLY IP SERVICES.

### **Specifications: 30 Day Mortality Rates**

#### **Overview**

The proposed measure is a hospital-wide, 30-day risk adjusted mortality rate. It is adapted from a measure developed by a team from Yale University Medical School for use by CMS to measure hospital performance for Medicare cases. This HSCRC measure supplements the inpatient mortality measure currently in use as part of the QBR program. The measure has been adapted for use with the HSCRC's all payer data for the state of Maryland and with objectives of Maryland's quality-based performance programs.

## Data sources

Data sources for the measure are used to identify index hospital stays and their characteristics, the mortality outcome, and patient characteristics that result in exclusions.

- HSCRC hospital data: Contains hospital stay records, dates, disposition, admission source, diagnoses and procedures
- CMS and Medicaid hospice data: identifies patients participating in hospice programs and dates of participation
- Maryland vital statistics data: identifies individuals' dates of death

These inputs are linked by the field CRISP EID (a unique identifier which can be linked to all three sources). In addition, the code takes as inputs the lists of ICD-10 diagnosis and procedure codes and crosswalks between these codes and Clinical Classifications Software (CCS) diagnostic and procedure categories (provided below).

## Inclusion

Patients ages 95 and younger residing in Maryland and treated in Maryland hospitals who are discharged during the study period are included.

## Exclusion

Stays are excluded based on hospice enrollment, All Patients Refined Diagnosis Related Groups (APR DRG) assignment, disposition and death information, principal diagnosis, and random selection for patients with multiple admissions.

- Hospice: patients enrolled before, during, or within 30 days after admission, discharged to hospice are excluded
  - If DAILYSER = '10' (HOSPICE) then hospice1=1, where DAILYSER is the Daily Service value from CaseMix IP dataset
  - If (DISCDATE < '01JUL2018'D and PAT\_DISP in ("29", "53") ) , or (DISCDATE >= '01JUL2018'D and PAT\_DISP in ("50", "51") ) then hospice2=1, where PAT\_DISP is the Patient Discharge Disposition from CaseMix IP dataset
    - Prior to FY19, 29 = TO ON-SITE HOSPICE, 53 = TO A HOSPICE FACILITY ;
    - From FY19 and onwards, 50 = TO HOSPICE AT HOME, 51 = TO HOSPICE DEFINED AS A MEDICAL FACILITY (CERTIFIED) PROVIDING HOSPICE LEVEL OF CARE (INCLUDES HOSPICE UNIT OF AN ACUTE CARE HOSPITAL)
  - If there is a hospice admission 120 days prior to the index IP visit, or 30 days after the index IP visit either in CCLF claims or MD Medicaid claims, then set hospice3=1.
    - hospice3 = (hspc\_within\_30days\_ip=1);

- APR DRG: Maternal and neonatal and ungroupable admissions are excluded based on APR DRG. Excluded codes are: 863, 636, 633, 630, 631, 639, 640, 603, 613, 611, 591, 593, 588, 589, 602, 608, 607, 614, 612, 609, 623, 621, 625, 622, 626, 583, 634, 581, 580, 955, 956, 196, 560, 540
- Disposition: Transfers, Left Against Medical Advice, inconsistent vital status (death prior to admission or prior to discharge if discharged alive) are excluded
- Diagnosis: Any diagnosis of metastatic cancer (**Cancer Diagnosis list provided below**) or a principal diagnosis indicating low survival probability (ICD10=G931 Anoxic brain damage, not elsewhere classified, R403 Persistent vegetative state, A8100 Creutzfeldt-Jakob disease, unspecified, A8109 Other Creutzfeldt-Jakob disease, G9382 Brain death, R092 Respiratory arrest, I469 Cardiac arrest, cause unspecified with a secondary diagnosis of AMI)) are excluded. Crush, spinal or brain injury, and burns are excluded by mapping the principal diagnosis into CCS software as CCS= 234: Crush, 240: Burns, 233: Intracranial injury 227: Spinal cord injury.
- Other: After these exclusions are imposed, a random admission is selected for each patient with multiple stays, other admissions are excluded

## Outcome

Death within 30 days is indicated by subtracting the admission date from discharge date with a disposition indicating inpatient death or, if the patient is not discharged dead, from the date of death taken from the vital statistics file or.

## Risk adjustment

Risk adjustment is performed by first classifying each stay into one of 15 service categories. The stay is assigned a surgical service category if a major surgical procedure is performed. Otherwise, the stay is nonsurgical. Non-surgical service categories are assigned based on principal diagnosis as mapped into CCS categories. Surgical service categories are assigned based on principal procedure (except Surgical Cancer, which is based on a major surgical procedure and a cancer principal diagnosis), also mapped into CCS categories. **AHRQ CCS categories for these service lines are presented below.**

Non-surgical categories are:

- Non-Surgical: Cancer
- Non-Surgical: Cardiac
- Non-Surgical: Gastrointestinal
- Non-Surgical: Infectious Disease
- Non-Surgical: Neurology
- Non-Surgical: Orthopedics
- Non-Surgical: Pulmonary
- Non-Surgical: Renal

- Non-Surgical: Other

Surgical categories are:

- Surgical: Cancer
- Surgical: Cardiothoracic
- Surgical: Neurosurgery
- Surgical: Other
- Surgical: General

Risk adjustment is performed by estimating logistic regression models for each service category with a random intercept for each index hospital. The risk factors in these models are age and APR DRG-risk of mortality (APR DRG-ROM). In this step, cases for which APR DRG volume is less than 20 are excluded from the model.

### Measure

A risk adjusted mortality ratio is calculated separately for each of the 15 service lines. The ratio is the mean predicted probability over the mean expected probability for cases attributed to the hospital during the study period. Predicted probability is calculated as the probability projected from the model including the hospital's intercept, while expected probability is projected without that intercept.

The hospital's overall risk adjusted rate is the product of the statewide mortality rate, calculated over cases in the analytic file used to generate hospital predicted rates, and the weighted logarithmic mean of risk adjusted rates, where weights are the service line shares of cases for that hospital.

### Cancer Exclusions Diagnosis List

C153	Malignant neoplasm of upper third of esophagus
C154	Malignant neoplasm of middle third of esophagus
C155	Malignant neoplasm of lower third of esophagus
C158	Malignant neoplasm of overlapping sites of esophagus
C159	Malignant neoplasm of esophagus, unspecified
C160	Malignant neoplasm of cardia
C161	Malignant neoplasm of fundus of stomach
C162	Malignant neoplasm of body of stomach
C163	Malignant neoplasm of pyloric antrum
C164	Malignant neoplasm of pylorus
C165	Malignant neoplasm of lesser curvature of stomach, unspecified
C166	Malignant neoplasm of greater curvature of stomach, unspecified
C168	Malignant neoplasm of overlapping sites of stomach

C169	Malignant neoplasm of stomach, unspecified
C170	Malignant neoplasm of duodenum
C171	Malignant neoplasm of jejunum
C172	Malignant neoplasm of ileum
C173	Meckel's diverticulum, malignant
C178	Malignant neoplasm of overlapping sites of small intestine
C179	Malignant neoplasm of small intestine, unspecified
C220	Liver cell carcinoma
C221	Intrahepatic bile duct carcinoma
C222	Hepatoblastoma
C223	Angiosarcoma of liver
C224	Other sarcomas of liver
C227	Other specified carcinomas of liver
C228	Malignant neoplasm of liver, primary, unspecified as to type
C229	Malignant neoplasm of liver, not specified as primary or secondary
C23	Malignant neoplasm of gallbladder
C240	Malignant neoplasm of extrahepatic bile duct
C241	Malignant neoplasm of ampulla of Vater
C248	Malignant neoplasm of overlapping sites of biliary tract
C249	Malignant neoplasm of biliary tract, unspecified
C250	Malignant neoplasm of head of pancreas
C251	Malignant neoplasm of body of pancreas
C252	Malignant neoplasm of tail of pancreas
C253	Malignant neoplasm of pancreatic duct
C254	Malignant neoplasm of endocrine pancreas
C257	Malignant neoplasm of other parts of pancreas
C258	Malignant neoplasm of overlapping sites of pancreas
C259	Malignant neoplasm of pancreas, unspecified
C3400	Malignant neoplasm of unspecified main bronchus
C3401	Malignant neoplasm of right main bronchus
C3402	Malignant neoplasm of left main bronchus
C3410	Malignant neoplasm of upper lobe, unspecified bronchus or lung
C3411	Malignant neoplasm of upper lobe, right bronchus or lung
C3412	Malignant neoplasm of upper lobe, left bronchus or lung
C342	Malignant neoplasm of middle lobe, bronchus or lung
C3430	Malignant neoplasm of lower lobe, unspecified bronchus or lung
C3431	Malignant neoplasm of lower lobe, right bronchus or lung



C3432	Malignant neoplasm of lower lobe, left bronchus or lung
C3480	Malignant neoplasm of overlapping sites of unspecified bronchus an
C3481	Malignant neoplasm of ovrlp sites of right bronchus and lung
C3482	Malignant neoplasm of ovrlp sites of left bronchus and lung
C3490	Malignant neoplasm of unspecified part of unspecified bronchus or
C3491	Malignant neoplasm of unsp part of right bronchus or lung
C3492	Malignant neoplasm of unsp part of left bronchus or lung
C37	Malignant neoplasm of thymus
C380	Malignant neoplasm of heart
C381	Malignant neoplasm of anterior mediastinum
C382	Malignant neoplasm of posterior mediastinum
C383	Malignant neoplasm of mediastinum, part unspecified
C384	Malignant neoplasm of pleura
C388	Malignant neoplasm of overlapping sites of heart, mediastinum and
C390	Malignant neoplasm of upper respiratory tract, part unspecified
C399	Malignant neoplasm of lower respiratory tract, part unspecified
C450	Mesothelioma of pleura
C452	Mesothelioma of pericardium
C459	Mesothelioma, unspecified
C700	Malignant neoplasm of cerebral meninges
C701	Malignant neoplasm of spinal meninges
C709	Malignant neoplasm of meninges, unspecified
C710	Malignant neoplasm of cerebrum, except lobes and ventricles
C711	Malignant neoplasm of frontal lobe
C712	Malignant neoplasm of temporal lobe
C713	Malignant neoplasm of parietal lobe
C714	Malignant neoplasm of occipital lobe
C715	Malignant neoplasm of cerebral ventricle
C716	Malignant neoplasm of cerebellum
C717	Malignant neoplasm of brain stem
C718	Malignant neoplasm of overlapping sites of brain
C719	Malignant neoplasm of brain, unspecified
C720	Malignant neoplasm of spinal cord
C721	Malignant neoplasm of cauda equina
C7220	Malignant neoplasm of unspecified olfactory nerve
C7221	Malignant neoplasm of right olfactory nerve
C7222	Malignant neoplasm of left olfactory nerve



C7230	Malignant neoplasm of unspecified optic nerve
C7231	Malignant neoplasm of right optic nerve
C7232	Malignant neoplasm of left optic nerve
C7240	Malignant neoplasm of unspecified acoustic nerve
C7241	Malignant neoplasm of right acoustic nerve
C7242	Malignant neoplasm of left acoustic nerve
C7250	Malignant neoplasm of unspecified cranial nerve
C7259	Malignant neoplasm of other cranial nerves
C729	Malignant neoplasm of central nervous system, unspecified
C770	Secondary and unspecified malignant neoplasm of lymph nodes of head
C771	Secondary and unspecified malignant neoplasm of intrathoracic lymph nodes
C772	Secondary and unspecified malignant neoplasm of intra-abdominal lymph nodes
C773	Secondary and unspecified malignant neoplasm of axilla and upper limb
C774	Secondary and unspecified malignant neoplasm of inguinal and lower limb
C775	Secondary and unspecified malignant neoplasm of intrapelvic lymph nodes
C778	Secondary and unspecified malignant neoplasm of lymph nodes of multiple sites
C779	Secondary and unspecified malignant neoplasm of lymph node, unspecified
C7800	Secondary malignant neoplasm of unspecified lung
C7801	Secondary malignant neoplasm of right lung
C7802	Secondary malignant neoplasm of left lung
C781	Secondary malignant neoplasm of mediastinum
C782	Secondary malignant neoplasm of pleura
C7830	Secondary malignant neoplasm of unspecified respiratory organ
C7839	Secondary malignant neoplasm of other respiratory organs
C784	Secondary malignant neoplasm of small intestine
C785	Secondary malignant neoplasm of large intestine and rectum
C786	Secondary malignant neoplasm of retroperitoneum and peritoneum
C787	Secondary malignant neoplasm of liver and intrahepatic bile duct
C7880	Secondary malignant neoplasm of unspecified digestive organ
C7889	Secondary malignant neoplasm of other digestive organs
C7900	Secondary malignant neoplasm of unspecified kidney and renal pelvis
C7901	Secondary malignant neoplasm of right kidney and renal pelvis
C7902	Secondary malignant neoplasm of left kidney and renal pelvis
C7910	Secondary malignant neoplasm of unspecified urinary organs
C7911	Secondary malignant neoplasm of bladder
C7919	Secondary malignant neoplasm of other urinary organs
C792	Secondary malignant neoplasm of skin

C7931	Secondary malignant neoplasm of brain
C7932	Secondary malignant neoplasm of cerebral meninges
C7940	Secondary malignant neoplasm of unsp part of nervous system
C7949	Secondary malignant neoplasm of oth parts of nervous system
C7951	Secondary malignant neoplasm of bone
C7952	Secondary malignant neoplasm of bone marrow
C7960	Secondary malignant neoplasm of unspecified ovary
C7961	Secondary malignant neoplasm of right ovary
C7962	Secondary malignant neoplasm of left ovary
C7970	Secondary malignant neoplasm of unspecified adrenal gland
C7971	Secondary malignant neoplasm of right adrenal gland
C7972	Secondary malignant neoplasm of left adrenal gland
C7981	Secondary malignant neoplasm of breast
C7982	Secondary malignant neoplasm of genital organs
C7989	Secondary malignant neoplasm of other specified sites
C799	Secondary malignant neoplasm of unspecified site
C7A00	Malignant carcinoid tumor of unspecified site
C7A010	Malignant carcinoid tumor of the duodenum
C7A011	Malignant carcinoid tumor of the jejunum
C7A012	Malignant carcinoid tumor of the ileum
C7A019	Malignant carcinoid tumor of the small intestine, unspecified portion
C7A020	Malignant carcinoid tumor of the appendix
C7A021	Malignant carcinoid tumor of the cecum
C7A022	Malignant carcinoid tumor of the ascending colon
C7A023	Malignant carcinoid tumor of the transverse colon
C7A024	Malignant carcinoid tumor of the descending colon
C7A025	Malignant carcinoid tumor of the sigmoid colon
C7A026	Malignant carcinoid tumor of the rectum
C7A029	Malignant carcinoid tumor of the large intestine, unspecified portion
C7A090	Malignant carcinoid tumor of the bronchus and lung
C7A091	Malignant carcinoid tumor of the thymus
C7A092	Malignant carcinoid tumor of the stomach
C7A093	Malignant carcinoid tumor of the kidney
C7A094	Malignant carcinoid tumor of the foregut, unspecified
C7A095	Malignant carcinoid tumor of the midgut, unspecified
C7A096	Malignant carcinoid tumor of the hindgut, unspecified
C7A098	Malignant carcinoid tumors of other sites

C7A1	Malignant poorly differentiated neuroendocrine tumors
C7A8	Other malignant neuroendocrine tumors
C7B00	Secondary carcinoid tumors, unspecified site
C7B01	Secondary carcinoid tumors of distant lymph nodes
C7B02	Secondary carcinoid tumors of liver
C7B03	Secondary carcinoid tumors of bone
C7B04	Secondary carcinoid tumors of peritoneum
C7B09	Secondary carcinoid tumors of other sites
C7B1	Secondary Merkel cell carcinoma
C800	Disseminated malignant neoplasm, unspecified
J910	Malignant pleural effusion

#### AHRQ CCS Categories by Service Line

Defining Surgical Procedure AHRQ CCS	CCS Description	Surgical Division of Procedure
36	Lobectomy or pneumonectomy	Cardiothoracic
42	Other OR Rx procedures on respiratory system and mediastinum	Cardiothoracic
43	Heart valve procedures	Cardiothoracic
44	Coronary artery bypass graft (CABG)	Cardiothoracic
49	Other OR heart procedures	Cardiothoracic
66	Procedures on spleen	General
67	Other therapeutic procedures; hemic and lymphatic system	General
72	Colostomy; temporary and permanent	General
73	Ileostomy and other enterostomy	General
74	Gastrectomy; partial and total	General
75	Small bowel resection	General
78	Colorectal resection	General
79	Local excision of large intestine lesion (not endoscopic)	General
80	Appendectomy	General
84	Cholecystectomy and common duct exploration	General
85	Inguinal and femoral hernia repair	General
86	Other hernia repair	General
89	Exploratory laparotomy	General
90	Excision; lysis peritoneal adhesions	General
94	Other OR upper GI therapeutic procedures	General

96	Other OR lower GI therapeutic procedures	General	
99	Other OR gastrointestinal therapeutic procedures	General	
105	Kidney transplant	General	
166	Lumpectomy; quadrantectomy of breast	General	
167	Mastectomy	General	
176	Organ transplantation (other than bone marrow, corneal or kidney)	General	
10	Thyroidectomy; partial or complete	Other	
12	Other therapeutic endocrine procedures	Other	
13	Corneal transplant	Other	
14	Glaucoma procedures	Other	
15	Lens and cataract procedures	Other	
16	Repair of retinal tear; detachment	Other	
17	Destruction of lesion of retina and choroid	Other	
20	Other intraocular therapeutic procedures	Other	
21	Other extraocular muscle and orbit therapeutic procedures	Other	
22	Tympanoplasty	Other	
23	Myringotomy	Other	
24	Mastoidectomy	Other	
26	Other therapeutic ear procedures	Other	
28	Plastic procedures on nose	Other	
30	Tonsillectomy and/or adenoidectomy	Other	
33	Other OR therapeutic procedures on nose; mouth and pharynx	Other	
51	Endarterectomy; vessel of head and neck	Other	
52	Aortic resection; replacement or anastomosis	Other	
53	Varicose vein stripping; lower limb	Other	
55	Peripheral vascular bypass	Other	
56	Other vascular bypass and shunt; not heart	Other	
59	Other OR procedures on vessels of head and neck	Other	
60	Embolectomy and endarterectomy of lower limbs	Other	
101	Transurethral excision; drainage; or removal urinary obstruction	Other	
103	Nephrotomy and nephrostomy	Other	
104	Nephrectomy; partial or complete	Other	
106	Genitourinary incontinence procedures	Other	
112	Other OR therapeutic procedures of urinary tract	Other	
113	Transurethral resection of prostate (TURP)	Other	
114	Open prostatectomy	Other	
118	Other OR therapeutic procedures; male genital	Other	

119	Oophorectomy; unilateral and bilateral	Other
120	Other operations on ovary	Other
123	Other operations on fallopian tubes	Other
124	Hysterectomy; abdominal and vaginal	Other
125	Other excision of cervix and uterus	Other
129	Repair of cystocele and rectocele; obliteration of vaginal vault	Other
131	Other non-OR therapeutic procedures; female organs	Other
132	Other OR therapeutic procedures; female organs	Other
135	Forceps; vacuum; and breech delivery	Other
144	Treatment; facial fracture or dislocation	Other
160	Other therapeutic procedures on muscles and tendons	Other
164	Other OR therapeutic procedures on musculoskeletal system	Other
172	Skin graft	Other
175	Other OR therapeutic procedures on skin and breast	Other
1	Incision and excision of CNS	Neurosurgery
2	Insertion; replacement; or removal of extracranial ventricular shunt	Neurosurgery
9	Other OR therapeutic nervous system procedures	Neurosurgery
3	Laminectomy; excision intervertebral disc	Orthopedic
142	Partial excision bone	Orthopedic
143	Bunionectomy or repair of toe deformities	Orthopedic
145	Treatment; fracture or dislocation of radius and ulna	Orthopedic
146	Treatment; fracture or dislocation of hip and femur	Orthopedic
147	Treatment; fracture or dislocation of lower extremity (other than hip or femur)	Orthopedic
148	Other fracture and dislocation procedure	Orthopedic
150	Division of joint capsule; ligament or cartilage	Orthopedic
151	Excision of semilunar cartilage of knee	Orthopedic
152	Arthroplasty knee	Orthopedic
153	Hip replacement; total and partial	Orthopedic
154	Arthroplasty other than hip or knee	Orthopedic
157	Amputation of lower extremity	Orthopedic
158	Spinal fusion	Orthopedic
161	Other OR therapeutic procedures on bone	Orthopedic
162	Other OR therapeutic procedures on joints	Orthopedic

AHRQ Diagnosis CCS Description Non-Surgical Division



11	Cancer of head and neck	Cancer	
12	Cancer of esophagus	Cancer	
13	Cancer of stomach	Cancer	
14	Cancer of colon	Cancer	
15	Cancer of rectum and anus	Cancer	
16	Cancer of liver and intrahepatic bile duct	Cancer	
17	Cancer of pancreas	Cancer	
18	Cancer of other GI organs; peritoneum	Cancer	
19	Cancer of bronchus; lung	Cancer	
20	Cancer; other respiratory and intrathoracic	Cancer	
21	Cancer of bone and connective tissue	Cancer	
22	Melanomas of skin	Cancer	
23	Other non-epithelial cancer of skin	Cancer	
24	Cancer of breast	Cancer	
25	Cancer of uterus	Cancer	
26	Cancer of cervix	Cancer	
27	Cancer of ovary	Cancer	
28	Cancer of other female genital organs	Cancer	
29	Cancer of prostate	Cancer	
30	Cancer of testis	Cancer	
31	Cancer of other male genital organs	Cancer	
32	Cancer of bladder	Cancer	
33	Cancer of kidney and renal pelvis	Cancer	
34	Cancer of other urinary organs	Cancer	
35	Cancer of brain and nervous system	Cancer	
36	Cancer of thyroid	Cancer	
37	Hodgkin's disease	Cancer	
38	Non-Hodgkin's lymphoma	Cancer	
39	Leukemias	Cancer	
40	Multiple myeloma	Cancer	
41	Cancer; other and unspecified primary	Cancer	
43	Malignant neoplasm without specification of site	Cancer	
44	Neoplasms of unspecified nature or uncertain behavior	Cancer	
45	Maintenance chemotherapy; radiotherapy	Cancer	
96	Heart valve disorders	Cardiac	
97	Peri-; endo-; and myocarditis; cardiomyopathy (except that caused by tuberculosis or sexually transmitted disease)	Cardiac	



100	Acute myocardial infarction	Cardiac
101	Coronary atherosclerosis and other heart disease	Cardiac
102	Nonspecific chest pain	Cardiac
103	Pulmonary heart disease	Cardiac
104	Other and ill-defined heart disease	Cardiac
105	Conduction disorders	Cardiac
106	Cardiac dysrhythmias	Cardiac
107	Cardiac arrest and ventricular fibrillation	Cardiac
108	Congestive heart failure; nonhypertensive	Cardiac
213	Cardiac and circulatory congenital anomalies	Cardiac
245	Syncope	Cardiac
249	Shock	Cardiac
6	Hepatitis	Gastrointestinal
120	Hemorrhoids	Gastrointestinal
138	Esophageal disorders	Gastrointestinal
139	Gastroduodenal ulcer (except hemorrhage)	Gastrointestinal
140	Gastritis and duodenitis	Gastrointestinal
141	Other disorders of stomach and duodenum	Gastrointestinal
142	Appendicitis and other appendiceal conditions	Gastrointestinal
143	Abdominal hernia	Gastrointestinal
144	Regional enteritis and ulcerative colitis	Gastrointestinal
145	Intestinal obstruction without hernia	Gastrointestinal
146	Diverticulosis and diverticulitis	Gastrointestinal
147	Anal and rectal conditions	Gastrointestinal
148	Peritonitis and intestinal abscess	Gastrointestinal
149	Biliary tract disease	Gastrointestinal
150	Liver disease; alcohol related	Gastrointestinal
151	Other liver diseases	Gastrointestinal
152	Pancreatic disorders (not diabetes)	Gastrointestinal
153	Gastrointestinal hemorrhage	Gastrointestinal
154	Noninfectious gastroenteritis	Gastrointestinal
155	Other gastrointestinal disorders	Gastrointestinal
214	Digestive congenital anomalies	Gastrointestinal
250	Nausea and vomiting	Gastrointestinal
251	Abdominal pain	Gastrointestinal
1	Tuberculosis	Infectious Disease
2	Septicemia (except in labor)	Infectious Disease

3	Bacterial infection; unspecified site	Infectious Disease
4	Mycoses	Infectious Disease
5	HIV infection	Infectious Disease
7	Viral infection	Infectious Disease
8	Other infections; including parasitic	Infectious Disease
9	Sexually transmitted infections (not HIV or hepatitis)	Infectious Disease
76	Meningitis (except that caused by tuberculosis or sexually transmitted disease)	Infectious Disease
77	Encephalitis (except that caused by tuberculosis or sexually transmitted disease)	Infectious Disease
135	Intestinal infection	Infectious Disease
159	Urinary tract infections	Infectious Disease
197	Skin and subcutaneous tissue infections	Infectious Disease
201	Infective arthritis and osteomyelitis (except that caused by tuberculosis or sexually transmitted disease)	Infectious Disease
246	Fever of unknown origin	Infectious Disease
237	Complication of device; implant or graft	Other Conditions
238	Complications of surgical procedures or medical care	Other Conditions
198	Other inflammatory condition of skin	Other Conditions
199	Chronic ulcer of skin	Other Conditions
200	Other skin disorders	Other Conditions
48	Thyroid disorders	Other Conditions
49	Diabetes mellitus without complication	Other Conditions
50	Diabetes mellitus with complications	Other Conditions
51	Other endocrine disorders	Other Conditions
53	Disorders of lipid metabolism	Other Conditions
58	Other nutritional; endocrine; and metabolic disorders	Other Conditions
206	Osteoporosis	Other Conditions
92	Otitis media and related conditions	Other Conditions
94	Other ear and sense organ disorders	Other Conditions
124	Acute and chronic tonsillitis	Other Conditions
134	Other upper respiratory disease	Other Conditions
136	Disorders of teeth and jaw	Other Conditions
137	Diseases of mouth; excluding dental	Other Conditions
46	Benign neoplasm of uterus	Other Conditions
160	Calculus of urinary tract	Other Conditions
161	Other diseases of kidney and ureters	Other Conditions

162	Other diseases of bladder and urethra	Other Conditions
163	Genitourinary symptoms and ill-defined conditions	Other Conditions
164	Hyperplasia of prostate	Other Conditions
165	Inflammatory conditions of male genital organs	Other Conditions
166	Other male genital disorders	Other Conditions
167	Nonmalignant breast conditions	Other Conditions
168	Inflammatory diseases of female pelvic organs	Other Conditions
169	Endometriosis	Other Conditions
170	Prolapse of female genital organs	Other Conditions
171	Menstrual disorders	Other Conditions
172	Ovarian cyst	Other Conditions
173	Menopausal disorders	Other Conditions
174	Female infertility	Other Conditions
175	Other female genital disorders	Other Conditions
215	Genitourinary congenital anomalies	Other Conditions
59	Deficiency and other anemia	Other Conditions
60	Acute posthemorrhagic anemia	Other Conditions
61	Sickle cell anemia	Other Conditions
62	Coagulation and hemorrhagic disorders	Other Conditions
63	Diseases of white blood cells	Other Conditions
64	Other hematologic conditions	Other Conditions
247	Lymphadenitis	Other Conditions
54	Gout and other crystal arthropathies	Other Conditions
57	Immunity disorders	Other Conditions
202	Rheumatoid arthritis and related disease	Other Conditions
210	Systemic lupus erythematosus and connective tissue disorders	Other Conditions
211	Other connective tissue disease	Other Conditions
253	Allergic reactions	Other Conditions
84	Headache; including migraine	Other Conditions
93	Conditions associated with dizziness or vertigo	Other Conditions
10	Immunizations and screening for infectious disease	Other Conditions
47	Other and unspecified benign neoplasm	Other Conditions
52	Nutritional deficiencies	Other Conditions
217	Other congenital anomalies	Other Conditions
252	Malaise and fatigue	Other Conditions
255	Administrative/social admission	Other Conditions
256	Medical examination/evaluation	Other Conditions

257	Other aftercare	Other Conditions
258	Other screening for suspected conditions (not mental disorders or infectious disease)	Other Conditions
259	Residual codes; unclassified	Other Conditions
86	Cataract	Other Conditions
87	Retinal detachments; defects; vascular occlusion; and retinopathy	Other Conditions
88	Glaucoma	Other Conditions
89	Blindness and vision defects	Other Conditions
90	Inflammation; infection of eye (except that caused by tuberculosis or sexually transmitted disease)	Other Conditions
91	Other eye disorders	Other Conditions
653	Delirium, dementia, and amnestic and other cognitive disorders	Other Conditions
241	Poisoning by psychotropic agents	Other Conditions
242	Poisoning by other medications and drugs	Other Conditions
243	Poisoning by nonmedicinal substances	Other Conditions
660	Alcohol-related disorders	Other Conditions
661	Substance-related disorders	Other Conditions
663	Screening and history of mental health and substance abuse codes	Other Conditions
114	Peripheral and visceral atherosclerosis	Other Conditions
115	Aortic; peripheral; and visceral artery aneurysms	Other Conditions
116	Aortic and peripheral arterial embolism or thrombosis	Other Conditions
117	Other circulatory disease	Other Conditions
118	Phlebitis; thrombophlebitis and thromboembolism	Other Conditions
119	Varicose veins of lower extremity	Other Conditions
121	Other diseases of veins and lymphatics	Other Conditions
248	Gangrene	Other Conditions
78	Other CNS infection and poliomyelitis	Neurology
79	Parkinson's disease	Neurology
80	Multiple sclerosis	Neurology
81	Other hereditary and degenerative nervous system conditions	Neurology
82	Paralysis	Neurology
83	Epilepsy; convulsions	Neurology
85	Coma; stupor; and brain damage	Neurology
95	Other nervous system disorders	Neurology
109	Acute cerebrovascular disease	Neurology
110	Occlusion or stenosis of precerebral arteries	Neurology
111	Other and ill-defined cerebrovascular disease	Neurology

112	Transient cerebral ischemia	Neurology	
113	Late effects of cerebrovascular disease	Neurology	
216	Nervous system congenital anomalies	Neurology	
235	Open wounds of head; neck; and trunk	Orthopedics	
236	Open wounds of extremities	Orthopedics	
239	Superficial injury; contusion	Orthopedics	
244	Other injuries and conditions due to external causes	Orthopedics	
203	Osteoarthritis	Orthopedics	
204	Other non-traumatic joint disorders	Orthopedics	
205	Spondylosis; intervertebral disc disorders; other back problems	Orthopedics	Orthopedics
207	Pathological fracture	Orthopedics	
208	Acquired foot deformities	Orthopedics	
209	Other acquired deformities	Orthopedics	Orthopedics
212	Other bone disease and musculoskeletal deformities	Orthopedics	
225	Joint disorders and dislocations; trauma-related	Orthopedics	
226	Fracture of neck of femur (hip)	Orthopedics	
228	Skull and face fractures	Orthopedics	
229	Fracture of upper limb	Orthopedics	
230	Fracture of lower limb	Orthopedics	
231	Other fractures	Orthopedics	
232	Sprains and strains	Orthopedics	
56	Cystic fibrosis	Pulmonary	
122	Pneumonia (except that caused by tuberculosis or sexually transmitted disease)	Pulmonary	
123	Influenza	Pulmonary	
125	Acute bronchitis	Pulmonary	
126	Other upper respiratory infections	Pulmonary	
127	Chronic obstructive pulmonary disease and bronchiectasis	Pulmonary	
128	Asthma	Pulmonary	
129	Aspiration pneumonitis; food/vomitus	Pulmonary	
130	Pleurisy; pneumothorax; pulmonary collapse	Pulmonary	
131	Respiratory failure; insufficiency; arrest (adult)	Pulmonary	
132	Lung disease due to external agents	Pulmonary	
133	Other lower respiratory disease	Pulmonary	
55	Fluid and electrolyte disorders	Renal	
98	Essential hypertension	Renal	
99	Hypertension with complications and secondary hypertension	Renal	Renal

156	Nephritis; nephrosis; renal sclerosis	Renal
157	Acute and unspecified renal failure	Renal
158	Chronic kidney disease	Renal