maryland
health services
cost review commission

To: Hospital CFOs

Cc: Hospital Quality Liaisons, Case-Mix Liaisons

From: HSCRC Quality/Performance Measurement Team

Date: February 9, 2021

Re: Maryland Quality Based Reimbursement Program Measure Standards, Scaling Determination, and other Methodology Changes for Rate Year 2023

This memo summarizes the changes to the Quality Based Reimbursement (QBR) Program that will impact hospital rates in Rate Year (RY) 2023.

Scaling Methodology and Revenue At-Risk

On December 9, 2020, the Commission approved the staff recommendations for revising the Quality-Based Reimbursement (QBR) Program for RY 2023. Consistent with the RY 2022 policy, the preset scale for RY 2023 uses a full distribution of potential scores (scale of 0-80%), and a score cut point of 41% for rewards and penalties. The maximum reward will remain at 2%, and the maximum penalty will remain at 2%. The preset scale is included as Appendix A of this memorandum.

Exemptions from CMS Hospital Quality Programs

Exemptions from the Centers for Medicare & Medicaid Services (CMS) quality hospital 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, HSCRC has submitted Maryland's QBR program reports and requests for exemptions from the federal Value-Based Purchasing (VBP) program to CMS since FY 2013. Beginning in the most recent year for which Maryland has been granted exemption from the federal VBP program (FY 2021), HSCRC has also sought and received exemptions from CMS for HAC Reduction and Hospital Readmission Reduction Programs, allowing Maryland to continue to operate the Maryland Hospital Acquired Conditions and Readmission Reductions Incentive Programs. For QBR, the exemption requests have emphasized that the QBR

policy continues to heavily weight the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores due to concerns regarding Maryland's progress on these measures. Under the TCOC Model, HSCRC is updating performance targets and requirements for its portfolio of quality and value-based payment programs. In order for Maryland to maintain its exemptions from federal pay-for-performance quality programs under the Model, the State must ensure that there is no backsliding on the progress made under the All-Payer Model, and the policies must continue to be aggressive and progressive, as reflected in annual reports submitted to CMS along with our exemption request.

QBR Redesign

In the RY 2022 policy, the HSCRC committed to convene a QBR Redesign Subgroup in CY 2020 in order to target areas of underperformance and to outline strategic updates to the QBR program that should be made in the short-, mid- and longer- terms. With the onset of the COVID Public Health Emergency (PHE), **staff deferred convening the Subgroup in CY 2020 and re-committed to convene the group instead in CY 2021**. In response to the exemption request for RY 2021, CMS noted in a written response that Maryland's performance continues to lag behind the nation under the person and community engagement and safety measure domains in the QBR and VBP programs. As a result, CMS agrees with the State's approach to redesign the QBR program for implementation in RY 2024 and beyond, and supports the creation of a QBR focused subgroup tasked with leading this initiative. Furthermore, CMMI will require the state to submit a QBR redesign subgroup report by August 15, 2021.

RY 2023 Measure Changes and Updates

Measure Updates

For the QBR program, the HSCRC generally follows the VBP programs in terms of measures and calculation of measure scores. Below are the updates to the QBR program measures for RY 2023:

A. **Add an exclusion for hospitals with lower case volumes and higher Case Mix Index (CMI) for the hip/knee complication measure**; hospitals with less than 50 elective procedures over three years that are in the top 10th percentile of complexity as defined by the average case-mix index are excluded. To prospectively determine the measure exclusion, the RY 2023 policy will use the RY 2021 THA-TKA results for case counts and CY 2018 and CY 2019 inpatient HSCRC case-mix data for average case-mix. University of Maryland Medical Center was the only facility to meet the exclusion criteria for the measure.

B. **Add follow-up after acute exacerbations for chronic conditions measure to the Person and Community Engagement QBR Domain**; as part of the TCOC model, the State is required to establish Statewide Integrated Health Improvement Strategies (SIHIS) across three domains that

include hospital quality, care transformation across the system, and total population health.[1] Within the "care transformation across the system domain", Maryland will incentivize improved care coordination for patients with chronic conditions. To assess this goal, staff identified a National Quality Forum (NQF) endorsed health plan measure that evaluates the percentage of ED visits, observation stays, and inpatient admissions for exacerbations of six conditions where a patient received follow-up within time frames recommended by clinical practices.[2] The chronic conditions and follow-up time frames include:

- Hypertension (7 days)
- Asthma (14 days)
- Heart Failure (14 days)
- CAD (14 days)
- COPD (30 days)
- Diabetes (30 days)

It should be noted that since non-hospital outpatient data is required for this measure that the HSCRC staff can only calculate follow-up for Medicare FFS beneficiaries at this time using Medicare claims.[3]

C. **Add PSI-90 measure composite to the Safety domain**; the discharge weighted average of the observed-to-expected ratios for the following subset of AHRQ's PSIs comprise the PSI-90 composite measure: [4]

- PSI 03 Pressure Ulcer Rate
- PSI 06 Iatrogenic Pneumothorax Rate
- PSI 08 In-Hospital Fall With Hip Fracture Rate
- PSI 09 Perioperative Hemorrhage or Hematoma Rate
- PSI 10 Postoperative Acute Kidney Injury Requiring Dialysis Rate
- PSI 11 Postoperative Respiratory Failure Rate
- PSI 12 Perioperative Pulmonary Embolism (PE) or Deep Vein Thrombosis (DVT) Rate
- PSI 13 Postoperative Sepsis Rate
- PSI 14 Postoperative Wound Dehiscence Rate
- PSI 15 Abdominopelvic Accidental Puncture or Laceration Rate

DOMAIN WEIGHTS

The final RY 2023 measure domain weights for the QBR program, as compared with the VBP Program, are listed below in Figure 1.

[1] For more information, refer to the Performance Measurement Workgroup meeting slides for August, September and October, 2020.
[2] The Follow up measure, NQF 3455, was developed by IMPAQ on behalf of CMS; Technical specifications: https://impaqint.com/measure-information-timely-follow-after-acute-exacerbations-chronic-conditions
[3] HSCRC staff is working with Medicaid and other payers to explore whether we can calculate an all-payer version of this measure in the future.
[4] AHRQ Technical Specifications: https://www.qualityindicators.ahrq.gov/Downloads/Modules/PSI/V2020/TechSpecs/PSI%2090%20Patient%20Safety%20and%20Adverse%20Events%20Composite.pdf

Figure 1. QBR Measure Domain Weights Compared with the VBP Program

	Clinical Care	Person and Community Engagement	Safety	Efficiency
QBR RY 23	15 percent 2 measures ☐ Inpatient Mortality (HSCRC case-mix data) ☐ THA TKA (CMS Hospital Compare, Medicare claims data)	50 percent 9 measures ☐ 8 HCAHPS dimensions (CMS Hospital Compare patient survey) ☐ **NEW**: Follow up after acute exacerbation of Chronic Conditions (Medicare claims)	35 percent 6 measures ☐ 5 CDC NHSN HAI measures (CMS Hospital Compare chart-abstracted) ☐ **NEW**: PSI 90 All-payer (HSCRC case-mix data)	N/A
VBP FY 23	25 percent 5 measures ☐ 4 measures- 30-day condition-specific Inpatient Mortality ☐ 1 measure- THA TKA (CMS Hospital Compare, Medicare claims data)	25 percent 8 measures ☐ 8 HCAHPS domains (CMS Hospital Compare patient survey)	25 percent 6 measures ☐ 5 CDC NHSN HAI measures (CMS Hospital Compare chart abstracted) ☐ **NEW**: PSI 90 Medicare (CMS Hospital Compare Medicare Claims data)	25 percent 1 measure ☐ Medicare Spending Per Beneficiary (CMS Hospital Compare Medicare Claims data)

COVID 19 Public Health Emergency Updates

The RY 2023 approved policy included a recommendation to adjust retrospectively the RY 2022 and RY 2023 QBR pay-for-performance program methodology as needed due to COVID-19 PHE and report changes to Commissioners.

HSCRC is following CMS guidance on quality program adjustments due to COVID. Staff notes that, on September 2, 2020, CMS published an Interim Final Rule (IFR) in response to the COVID-19 PHE. In this IFR, they announced that:

- CMS will not use CY Q1 or CY Q2 of 2020 quality data for FFY 2022 pay-for-performance programs, even if submitted by hospitals.
- CMS still reserves the right to suspend application of revenue adjustments for FFY 2022 for all hospital pay for performance programs at a future date in CY 2021; changes will be communicated through memos ahead of IPPS rules.

It is not known at this time if Maryland has flexibility in suspending our RY 2022 pay-for-performance programs, and furthermore, Maryland's decision must be made prior to CMS making their decision due to the prospective nature of our pay-for-performance programs. However, CMMI has strongly suggested that the State must have quality program adjustments, and has further suggested that the State pursue alternative strategies to achieve reliable and valid RY 2022 quality measurement, such as reusing some or all of CY 2019 data (as is being done for the Skilled Nursing Facility VBP program). In context of the CMS announcement and subsequent CMMI comments, staff has evaluated the data issues and options

for the RY 2022 QBR program in Maryland, as illustrated in Figure 2 below.

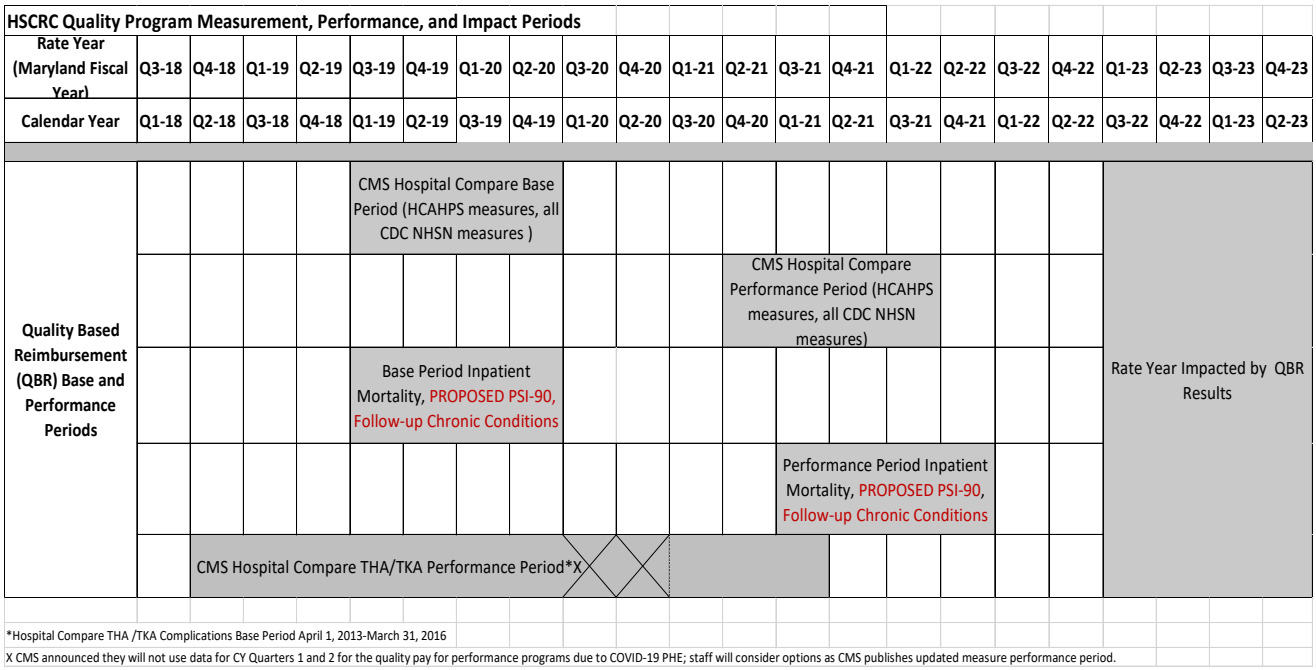
Figure 2. RY 2022 COVID-Related Data Concerns and Options

COVID Data Concern	***Inpatient Mortality (source: HSCRC case-mix data)***	***HCAHPS, CDC NHSN, Hip Knee Complications (source: CMS Hospital Compare)***
If only 6 months of data for CY 2020: • Is 6-months data reliable? • What about seasonality? • How will HSCRC access the six months of Hospital Compare data, typically presented on a rolling 12-months basis?	• Remove COVID patients from July-December 2020 • Consider combining with 6 months of CY 2019 data.	• Consider using CY 2019 data, re-using 3 quarters of RY 2021 data and 1 quarter of RY 2022 data (HCAHPS, CDC NHSN) • Consider suspending from the program (Hip Knee Complic.)
If no data for CY 2020	• Consider using CY 2019 data, (re-using 4 quarters of RY 2021) or combining CY 2018 (re-using 4 quarters of RY 2020) with CY 2019 and using 2 year average.	• Consider using CY 2019 data, re-using 3 quarters of RY 2021 data and 1 quarter of RY 2022 data (HCAHPS, CDC NHSN) • Consider suspending from the program (Hip Knee Complic.)
Clinical concerns over inclusion of COVID patients	• Adjust base as needed for seasonality concerns • Merge 2019, and 2020 data (if available), together to create a 12 month performance period • Use 2019 data or revenue	• Consider using CY 2019 data, re-using 3 quarters of RY 2021 data and 1 quarter of RY 2022 data (HCAHPS, CDC NHSN) • Consider suspending from the program (Hip Knee Complic.)
Case-mix adjustment and performance standard concerns: • Inclusion of COVID patients when not in normative values • Impacts on other DRG/SOI of COVID PHE	• Remove COVID patients from CY 2020 • Develop concurrent norms and performance standards for comparison and possible use • Use 2019 data or revenue adjustments	N/A

MEASUREMENT PERIODS

The proposed base and performance measurement periods used for the QBR program for RY 2023 are illustrated below in figure 3. Staff will update hospitals on any changes to the measurement periods related to the adjustments needed related to the COVID PHE.

Figure 3. RY 2023 QBR Base and Performance Timeline



QBR Data Sources, Score Calculations and Performance Standards for RY 2023

To the extent possible, HSCRC has aligned the QBR program data, scoring calculations, measures list and performance standards with the VBP program. Appendix B provides an overview of the QBR methodology. 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 Hospital Compare for calculating hospital performance scores for all measures with exception of in-hospital mortality measure and the PSI-90 measure, which are calculated using HSCRC case-mix data, and the follow-up after discharge for acute exacerbation of chronic condition, which is calculated from Medicare Claims and Claims-Line Feed (CCLF) data.
    - NOTE: If NHSN data are unavailable on CMS Hospital 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.

- Maryland Mortality summary reports and case-level data are provided to hospitals quarterly based on preliminary and final data. Reports are available on the CRS Portal. Appendix C contains the specifications for the Maryland Mortality measure.
- 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 for the base and performance periods, staff reserve 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 Hospital Compare, and to alert HSCRC staff in a timely manner if issues cannot be resolved. (**NOTE:** This does not apply to data submission for the three quarters of data from October 2019 to June 2020 as CMS has made submission optional because of the COVID PHE).
- With the exception of the PSI 90, Inpatient Mortality, and Follow-up Measure measures, the performance standards for each of the Safety, Clinical Care, and Person and Community Engagement measures for RY 2023 are listed below in Figure 4.
    - NOTE: In prior years, CMS has adjusted the VBP thresholds and benchmarks mid-year for certain measures (most notably, the C. diff measure). Should any VBP measure included in the RY 2023 QBR program be updated, HSCRC will notify industry and provide an updated calculation sheet at that time.

- Staff anticipates that the following will be provided via the CRISP Reporting Services (CRS) Portal within the coming weeks, and will also be posted to the HSCRC Website:
    - An excel workbook with base year data.
    - A score calculation workbook containing a worksheet for each domain for hospitals to use to calculate and monitor their scores, current (included) mortality DRGs, and associated thresholds/benchmarks.
    - For the measures where the standards indicate TBD in Figure 4 below, the final standards for the all-payer PSI 90, Inpatient Mortality, and Follow-up after Exacerbation of Chronic Conditions measures.

Figure 4. QBR Performance Standards for RY 2023

Previously Established and Newly Established Performance Standards for the FY 2023 Program Year		
Measure Short Name	**Achievement Threshold**	**Benchmark**
Safety Domain		
CMS PSI 90*^ **(NEW)**	0.989	0.608
CAUTI*+	0.676	0
CLABSI*+	0.596	0
CDI*+	0.544	0.01
MRSA Bacteremia*+	0.727	0
Colon and Abdominal Hysterectomy SSI*+	0.734 0.732	0 0
Clinical Outcomes Domain		
Inpatient Mortality	TBD	TBD
COMP-HIP-KNEE*#	0.027428	0.019779

* Lower values represent better performance.
^Standards based upon CY 2019 HSCRC Case Mix data.
Previously established performance standards
+ The newly established 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 2021 IPPS Final Rule and calculated using four quarters of CY 2019 data.

New Measure for FY 2023	**Person and Community Engagement Domain**	
	Achievement Threshold	**Benchmark**
Follow Up after Exacerbation for Chronic Conditions	TBD	TBD

Newly Established Performance Standards for the FY 2023 Program Year: Person and Community Engagement Domain±			
HCAHPS Survey Dimension	**Floor (minimum)**	**Achievement Threshold (50th percentile)**	**Benchmark (mean of top decile)**
Communication with Nurses	53.50	79.42	87.71
Communication with Doctors	62.41	79.83	87.97
Responsiveness of Hospital Staff	40.40	65.52	81.22
Communication about Medicines	39.82	63.11	74.05
Hospital Cleanliness & Quietness	45.94	65.63	79.64
Discharge Information	66.92	87.23	92.21
Care Transition	25.64	51.84	63.57
Overall Rating of Hospital	36.31	71.66	85.39

± The newly established performance standards displayed in this table were calculated using four quarters of CY 2019 data.

For any questions, please email hscrc.quality@maryland.gov.

Appendix A: RY 2023 QBR Preset Payment Scale

Please see below for approximate revenue adjustments associated with QBR scores.

Final QBR Score		QBR Preset Scale
Scores less than or equal to	**0%**	**-2.00%**
	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%
Scores greater than or equal to	**80%**	**2.00%**

*For RY 2023, hospitals receiving a score of less than 41% (0.41) will receive a penalty, and hospitals receiving 0.42 and above will receive a reward. Any hospital receiving a score of 0.80 or higher will receive the maximum reward.

Appendix B: RY 2023 QBR Methodology: Converting Performance Scores to Payment Adjustments

Performance Measures

QBR Measures by Domain:

Person and Community Engagement (9 Measures: 8 HCAHPS categories; Follow-up after chronic conditions exacerbation)

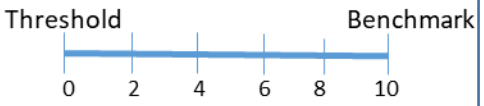
Safety (6 Measures: 5 CDC NHSN HAI Categories; All-payer PSI 90)

Clinical Care (Inpatient Mortality, THA/TKA Complication)

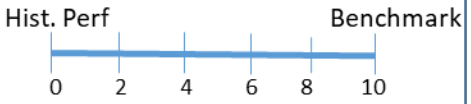
Standardized Measure Scores

Individual Measures are Converted to 0-10 Points:

Points for Attainment Compare Performance to a National Threshold (median) and Benchmark (top 5%)



Points for Improvement Compare Performance to Base (historical perf) and Benchmark



Final Points are Better of Improvement or Attainment

Hospital QBR Score & Revenue Adjustments

Hospital QBR Score is Sum of Earned Points / Possible Points with Domain Weights Applied

Scale Ranges from 0-80%

Max Penalty 2% & Reward +2%

Abbreviated Pre-Set Scale	QBR Score	Financial Adjustment
Max Penalty	**0%**	**-2.00%**
	10%	-1.51%
	20%	-1.02%
	30%	-0.54%
Penalty/Reward Cutpoint	41%	0.00%
	50%	0.46%
	60%	0.97%
	70%	1.49%
Max Reward	**80%+**	**2.00%**

Appendix C: RY 2023 Maryland Mortality Measure 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 2023: Levindale, UMROI, McCready, Grace Memorial)
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 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.

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.