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To: Hospital CFOs

Cc: Hospital Quality Liaisons
Case Mix Liaisons

From: HSCRC Quality/Performance Measurement Team

Date: February 12, 2018; **Updated March 1, 2018**

Re: Maryland Quality Based Reimbursement Program Measure Standards, Scaling
Determination, and other Methodology Changes for Rate Year 2020

This memo summarizes the changes to the Quality Based Reimbursement Program (QBR) that will impact hospital rates in Rate Year (RY) 2020.

Scaling Methodology and Revenue At-Risk

On December 13, 2017, the Commission approved the staff recommendations for revising the Quality-Based Reimbursement (QBR) Program for RY 2020. The preset scale for RY 2020 maintains the RY 2019 scale, which uses a full distribution of potential scores (scale of 0-80%), and a score cut point of 45% 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.

Aligning the QBR program with the CMS Value Based Purchasing (VBP) Program

VBP Exemption

The Centers for Medicare & Medicaid Services (CMS) has granted Maryland's requests for exemptions for the Value-Based Purchasing (VBP) program for FY 2013 through FY 2017. A report containing our performance results to-date and an exemption request for FY 2018 was submitted to CMMI on February 28, 2017. The exemption request emphasized that the QBR policy continues to heavily weight the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) scores due to concerns regarding progress on patient experience. A formal exemption request for FY 2019 is currently being drafted.

RY 2020 Measure Changes and 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 2020:

- 1) Hospitals will be assessed for mortality using a measure that includes palliative care patients, risk adjusted for palliative care status using ICD codes, to calculate both improvement and attainment points. The RY 2020 mortality measure differs from the measure used in RY 2019, under which two different mortality measures were used to assess improvement and attainment (see the RY 2019 QBR Policy Memo, located on the QBR website, for additional information on RY 2019 mortality measure).¹ **This memo provides updated benchmarks and thresholds for mortality that reflect a change to the methodology whereby the diagnoses that account for 80% of mortality are selected without palliative care and then discharges with selected diagnoses and palliative care are added back into the sampled population.** As with other QBR measures, staff will continue to credit hospitals for the better of their improvement or attainment scores.
- 2) The HSCRC will maintain the suspension of the Agency for Healthcare Research and Quality (AHRQ) Patient Safety Indicator (PSI)-90 measure until a risk-adjusted ICD-10 version becomes available (anticipated in CY 2018).
- 3) As was the case last year, VBP has adopted the THA/TKA complication measure for FFY 2019, but Maryland does not have access to the exact data used for VBP through Hospital Compare. HSCRC staff is exploring options for obtaining the VBP measure, and in the meantime encourages hospitals to monitor the Hospital Compare measure for future inclusion in the QBR program.²
- 4) Hospitals will be assessed on their improvement on two measures of Emergency Department (ED) throughput efficiency— ED-1b, Median time from emergency department arrival to time of departure from the emergency room for patients admitted to the hospital, and ED-2b, Median time from admit decision to time of departure from the emergency department for patients admitted to inpatient status. Unlike other QBR measures, which calculate the benchmark performance at the 95th percentile, the benchmark for the ED measures is the national median by hospital volume category, stratified into four categories by annual numbers of ED visits, incentivizing improvement to move Maryland hospitals closer to the national median. As mentioned, these national medians are stratified by volume category in order to account for the fact that high volume and low volume hospitals cannot be fairly compared. Hospitals at or below the national median for their respective volume categories during the performance period are eligible for a full 10 attainment points regardless of their improvement. The ED wait time measures are available on CMS Hospital Compare. The QBR base period workbook, which accompanies this memo, contains hospital volume categories, base year (CY 2016) performance, and volume-stratified benchmarks for these measures.
 - (a) Hospitals that improve enough to achieve at least one improvement point on either ED wait time measure will receive the better of their final QBR score,

1 http://hsrc.maryland.gov/Documents/Quality_Documents/QBR/RY2019/RY2019-QBR-Memo-Updated-06-02-2017.pdf

2 Staff notes that on an all-payer basis, patients receiving total hip or knee arthroplasty procedures are included in the MHAC program, Readmission Reduction Incentive Program, and the QBR mortality measure.

with or without that particular measure. For more information on the measure-specific **protections**, please see Appendix B.

- (b) It should be noted that while the Commission approved the inclusion of ED wait time measures, the commissioners requested that industry and staff continue to explore additional risk-adjustment for these measures.

Domain Weights

The Final Measure Domain Weights for the QBR program compared with the VBP Program for RY 2020 are listed below in Figure 1.

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

	Clinical Care	Patient experience of Care/ Care Coordination	Safety	Efficiency
QBR	15% (1 measure- inpatient all cause mortality)	50% (8 measures- HCAHPS + CTM; 2 ED Wait Time measures)	35% (7 measures- Infection, PC -01)	N/A
CMS VBP	25% (4 measures- 3 condition specific 30-day mortality measures + 1 THA/TKA complication measure)	25% (8 measures- HCAHPS + CTM)	25% (8 measures- Infection, PSI, PC -01)	25%

Measurement Periods

The base and performance measurement periods used for the QBR program for RY 2020 are illustrated below in figure 2.

Figure 2. RY 2020 QBR Base and Performance Timeline

Rate Year (Maryland Fiscal Year)	Q3 -16	Q4 -16	Q1 -17	Q2 -17	Q3 -17	Q4 -17	Q1 -18	Q2 -18	Q3 -18	Q4 -18	Q1 -19	Q2 -19	Q3 -19	Q4 -19	Q1 -20	Q2 -20	Q3 -20	Q4- 20		
Calendar Year	Q1 -16	Q2 -16	Q3 -16	Q4 -16	Q1 -17	Q2 -17	Q3 -17	Q4 -17	Q1 -18	Q2 -18	Q3 -18	Q4 -18	Q1 -19	Q2 -19	Q3 -19	Q4 -19	Q1 -20	Q2- 20		
Quality Programs that Impact Rate Year 2020																				
QBR	Hospital Compare Base Period*																		Rate Year Impacted by QBR Results	
								Hospital Compare Performance Period*												
			Maryland Mortality Base Period																	
									QBR Maryland Mortality Performance Period											

*Hospital Compare measures include the following: All HCAHPS measures, ED-1b, ED-2b; All NHSN Measures, PC-01.

QBR Data Sources, Score Calculations and Performance Standards for RY 2020

As stated previously, to the extent possible, HSCRC has aligned the QBR program data, scoring calculations, measures list and performance standards with the VBP program. Appendix C provides an overview of the QBR methodology. Key points regarding this 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, which are calculated using HSCRC case mix 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.
- CMS rules will be used when possible for minimum measure requirements for scoring a domain and for readjusting 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. Current Base Year data, DRGs, and thresholds/benchmarks **have been restated with this revised memo as final**. Appendix D 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 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.
- The performance thresholds and benchmarks for each of the safety, clinical care outcome, and patient and caregiver-centered experience of care/care coordination HCAHPS measures for RY 2020 are listed below in Figure 3.
 - 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 2020 QBR program be updated, HSCRC will notify industry and provide an updated calculation sheet at that time.

An excel workbook with base year data accompanies this memo and will be posted to the HSCRC website and CRISP Reporting Services (CRS) Portal. HSCRC has also developed and is providing a score calculation workbook containing a worksheet for each domain for hospitals to use to calculate and monitor their scores; the workbook accompanies this memo and will also be posted to the website and CRS portal.

Figure 3. Thresholds and Benchmarks for RY 2020

Measure ID	Description	Achievement threshold	Benchmark
	Safety		
CAUTI	National Healthcare Safety Network Catheter-associated Urinary Tract Infection Outcome Measure.	0.828	0.000
CLABSI	National Healthcare Safety Network Central Line-associated Bloodstream Infection Outcome Measure.	0.784	0.000
CDI	National Healthcare Safety Network Facility-wide Inpatient Hospital-onset <i>Clostridium difficile</i> Infection Outcome Measure.	0.852	0.091
MRSA bacteremia	National Healthcare Safety Network Facility-wide Inpatient Hospital-onset Methicillin-resistant <i>Staphylococcus aureus</i> Bacteremia Outcome Measure.	0.815	0.000
PSI-90- SUSPENDED in Maryland	Patient safety for selected indicators- composite (AHRQ)	TBD	TBD
Surgical Site Infection (SSI)-Colon	Colon	0.781	0.000
SSI - Hysterectomy	Abdominal Hysterectomy	0.722	0.000
PC-01	Elective Delivery before 39 weeks	0.0000000	0.0000000
	Clinical Care Outcome Measures		
Mortality (Final)	Inpatient All-Payer, All Cause	95.6169%	97.0807%

Measure ID	Description	Achievement threshold	Benchmark
	Efficiency and Cost Reduction Measure		
MSPB-1 (VBP ONLY; not included in QBR)	N/A	N/A	N/A
Person and Community Engagement			
	Floor (percent)		
Communication with Nurses	51.80	79.08	87.12
Communication with Doctors	50.67	80.41	88.44
Responsiveness of Hospital Staff	35.74	65.07	80.14
Communication about Medicines	26.16	63.30	73.86
Hospital Cleanliness & Quietness	41.92	65.72	79.42
Discharge Information	66.72	87.44	92.11
3-Item Care Transition (CTM)	20.33	51.14	62.50
Overall Rating of Hospital	32.47	71.59	85.12
ED-1b	ED BENCHMARK BY HOSPITAL VOLUME; SEE CALCULATION SHEET		
ED-2b			

If you have any questions, please email hscrc.quality@maryland.gov or call Dianne Feeney (410-764-2582) or Alyson Schuster at (410-764-2673).

Attachments: Excel files entitled "QBR RY2020 Base Period Results"; RY 2020 QBR Calculation Sheet.

Appendix A: RY 2020 QBR Preset Payment Scale

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

Final QBR Score	QBR Preset Scale	Final QBR Score	QBR Preset Scale
Scores less than or equal to	0%		-2.00%
	1%	41%	-0.18%
	2%	42%	-0.13%
	3%	43%	-0.09%
	4%	44%	-0.04%
	5%	45%	0.00%
	6%	46%	0.06%
	7%	47%	0.11%
	8%	48%	0.17%
	9%	49%	0.23%
	10%	50%	0.29%
	11%	51%	0.34%
	12%	52%	0.40%
	13%	53%	0.46%
	14%	54%	0.51%
	15%	55%	0.57%
	16%	56%	0.63%
	17%	57%	0.69%
	18%	58%	0.74%
	19%	59%	0.80%
	20%	60%	0.86%
	21%	61%	0.91%
	22%	62%	0.97%
	23%	63%	1.03%
	24%	64%	1.09%
	25%	65%	1.14%
	26%	66%	1.20%
	27%	67%	1.26%
	28%	68%	1.31%
	29%	69%	1.37%
	30%	70%	1.43%
	31%	71%	1.49%
	32%	72%	1.54%
	33%	73%	1.60%
	34%	74%	1.66%
	35%	75%	1.71%
	36%	76%	1.77%
	37%	77%	1.83%
	38%	78%	1.89%
	39%	79%	1.94%
	40%	80%	2.00%
		Scores greater than or equal to	80%
			2.00%

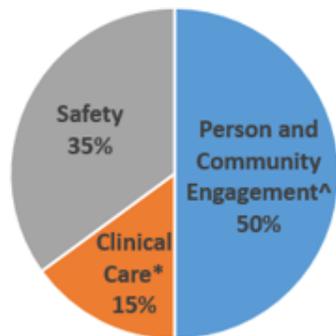
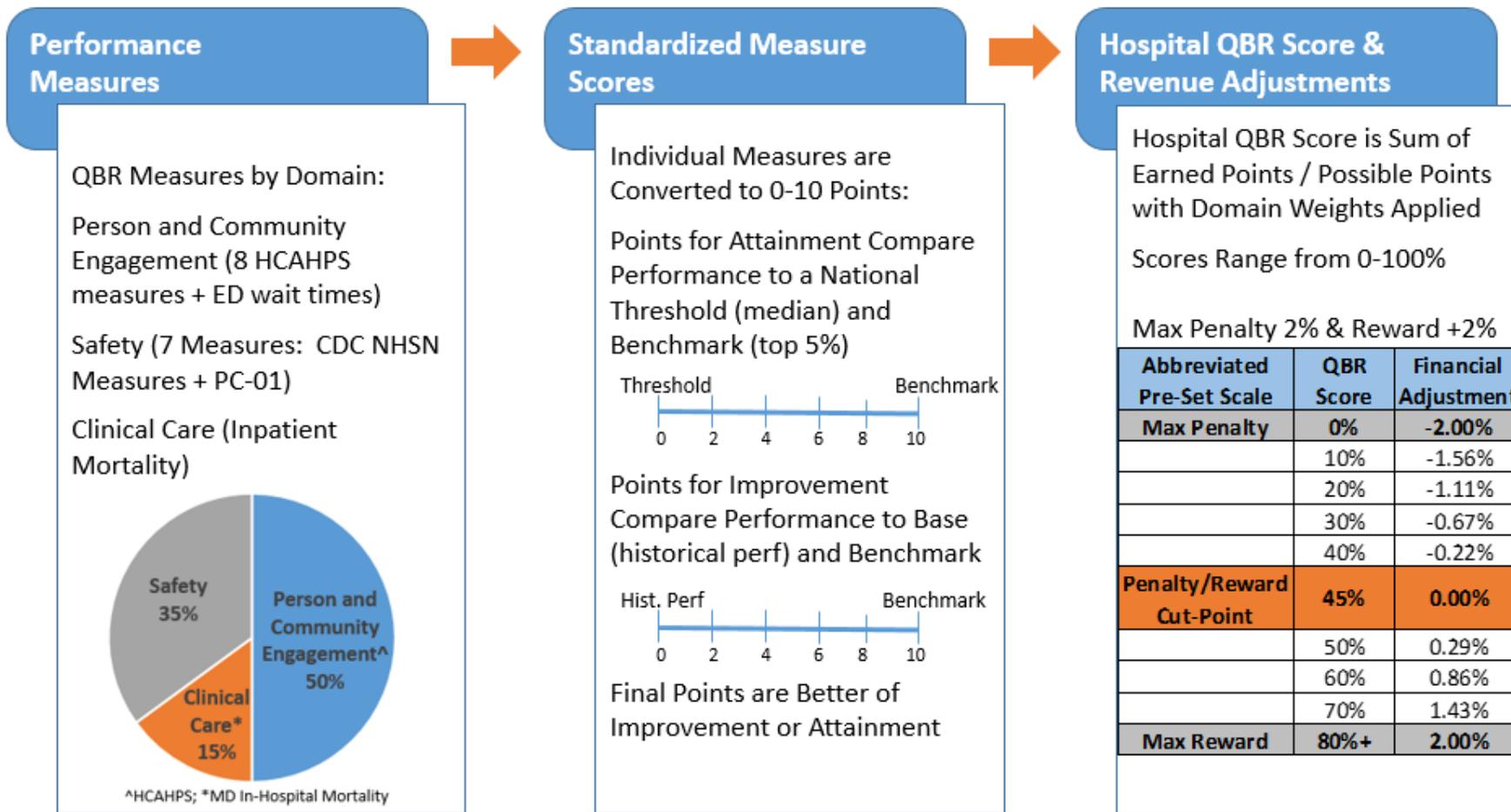
*For RY 2020, hospitals receiving a score from 0.00 to 0.44 will receive a penalty, and hospitals receiving 0.46 and above will receive a reward. Any hospital receiving a score of 0.80 or higher will receive the maximum reward.

Appendix B: Further Explanation of ED Wait Times Protections

In order to further incentivize hospitals to improve on ED Wait Times, hospitals that receive at least one improvement point on an ED Measure will be eligible for the HCAHPS domain score that is higher, with or without that included measure. As there are two measures, there are four scenarios:

1. Hospital does not improve/receives zero improvement points on each ED Wait Time measure
→ Both measures are included in the PCE Domain score (i.e., the hospital does not receive a protection).
2. Hospital receives at least one improvement point on ED-1b, but receives zero improvement points on ED-2b → Hospital will receive the better of:
 - PCE with ED-2b only included; or
 - PCE with both ED measures included.
3. Hospital receives at least one improvement point on ED-2b, but receives zero improvement points on ED-1b → Hospital will receive the better of:
 - PCE with ED-1b only included; or
 - PCE with both ED measures included.
4. Hospital receives at least one improvement point on both ED measures → Hospital will receive the best PCE score of the following:
 - PCE with no ED measures;
 - PCE with ED-1b only included;
 - PCE with ED-2b only included; or
 - PCE with both ED measures included.

Appendix C: RY 2020 QBR Methodology



[^]HCAHPS; ^{*}MD In-Hospital Mortality

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. Rehab hospitals (provider ids that start with 213) and Kernan/UMROI
2. Chronic cases (daily service = 9 or major service =10)
3. Transfers to other acute hospitals (discharge destination=40)
4. Age and sex unknown
5. Hospice patients (Daily service=10)
6. University of Maryland Shock Trauma Patients (daily service=02, and trauma days>0)
7. Left Against Medical Advice admissions: (discharge destination=71)
8. 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”)
9. Error DRG: Admissions assigned to an error DRG 955 or 956
10. Other DRG: Admissions assigned to DRG 589 (Neonate BWT <500G or GA <24 weeks), 196 (cardiac arrest) due to high risk of mortality in these conditions.
11. APR DRG 004 (Tracheostomy w MV 96+ hours w extensive procedure or ECMO) due to low cell size.
12. Exclude McCready, Levindale and Mount Washington Pediatric
13. Medical (non-surgical) Malignancy admissions: Medical admissions with a principal diagnosis of a major metastatic malignancy (see calculation sheet for codes).
14. APR-DRGs that are NOT in the 80% of cumulative deaths after removing all the exclusions above, **as well as removing palliative care discharges. Palliative care discharges are for selected DRGs are then added back into the denominator.**
15. APR-DRG ROM with a state-wide cell sizes below 20 after removing all the exclusions above.

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 of
 - 40 Admitted from another acute general hospital to MIEMS-designated specialty referral or area-wide trauma center
 - 41 Admitted from another acute general hospital inpatient service for any other reason

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. In adherence with current CRISP policies on opt-outs, the details of opt-out cases will be suppressed except for the mortality flag.