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To: Hospital CFOs

Cc: Case Mix Liaisons, Hospital Quality Contacts

From: From: Alyson Schuster, Ph.D., Associate Director, Performance Measurement

Date: May 9, 2014

Re: Readmissions Reduction Incentive Program Policies for Rate Year (RY) 2016

This memo summarizes the key components of the Readmission Reduction Incentive Program that will impact hospital rates in RY2016.

1) Maryland Hospital All-Payer Model Readmission Goals

As you may be aware, the All-Payer Model approved by the Center for Medicare and Medicaid Innovation (CMMI), which began on January 1, 2014, established readmission targets that Maryland must meet as part of the contract with CMMI. The contract with CMMI states that **Maryland's Medicare readmission rate must be equal to or less than the National Medicare rate by the end of 2018.** To enhance our ability to meet this target, policy recommendations for a new program were approved by the Commission at the April 9, 2014 meeting.

2) Readmission Reduction Incentive Program Recommendations

To date, Maryland has implemented payment methodologies— the Total Patient Revenue, Admission Readmission Revenue— that do not directly measure and reward lower/reduced readmission rates but rather incentivize readmission reduction through hospital bundled payments.

In May 2013, the Commission approved a Shared Savings Policy where hospital revenues are adjusted by 0.3% of inpatient revenues to provide similar cost savings as the federal Centers for Medicare and Medicaid Services (CMS) Readmission Reduction program.

At its April 2014 meeting, the Commission approved a new performance measurement and incentive program (Available on the HSCRC Website) for providing direct incentives to reduce readmissions that HSCRC staff believe is equitable for all hospitals and patients, and

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maximizes Maryland's likelihood of achieving the targets in the CMMI contract. For RY2016 the Commission approved this new program, which will provide a positive incentive of up to 0.5 percent of inpatient permanent revenue for hospitals that achieve a reduction in all-payer risk-adjusted readmissions of at least 6.76%. Observation and ED visits within 30 Days of an inpatient stay will be monitored; adjustments to the positive incentive will be made if observation cases within 30 days increase faster than the other observations in a given hospital.

3) **Methodology for Hospital Readmission Reduction Incentive Program**

   a) **Performance Metric**
   The methodology for the readmission incentive program measures performance using the 30-day all-payer all hospital (both intra and inter hospital) readmission rate with adjustments for patient severity (based upon discharge APR-DRG SOI) and planned admissions.

   The measure is very similar to the readmission rate that will be calculated for the new-all payer model with a few exceptions. For comparing Maryland's Medicare readmission rate to the national readmission rate, CMMI will calculate an unadjusted readmission rate for Medicare beneficiaries. Since the HSCRC measure is for hospital specific payment purposes, adjustments had to be made to the metric that took into account planned admissions and severity of illness.

   See Appendix A for details on the readmission calculation for the program.

   b) **Adjustments to Readmission Measurement**
   The following discharges are removed from the numerator and/or denominator for the readmission rate calculations:
   - Planned readmissions are excluded from the numerator based upon CMS Planned Readmission Algorithm V. 2.1. The HSCRC has also added all vaginal and C-section deliveries as planned using the APR-DRGs rather than principal diagnosis (APR-DRGs 540, 541, 542, 560). Planned admissions are counted in the denominator because they could have an unplanned readmission.
   - Hospitalizations within 30 days of a hospital discharge where a patient dies is counted as a readmission, however the readmission is removed from the denominator because there cannot be a subsequent readmission.
   - Admissions that result in transfers, defined as cases where the discharge date of the admission is on the same day as the admission date of the subsequent admission, are removed from the denominator counts. Thus only one admission is counted in the denominator and that is the admission to the transfer hospital, and it is this discharge date that is used to calculate the 30-day readmission window.
   - Discharges from rehabilitation hospitals (provider ids 213028, 213029, 210333).
   - In addition the following data cleaning edits are applied:
     a. Cases with null or missing Chesapeake Regional Information System unique patient identifiers (CRISP EIDs)
     b. Duplicates
     c. Negative interval days

HSCRC staff is revising case mix data edits to prevent submission of duplicates and negative intervals which are very rare. In addition CRISP EID matching benchmarks are closely monitored. The percent of inpatient discharges with CRISP EID is currently at 99 percent.

See Appendix B for frequently asked questions on exclusions.

c) CY2014 Performance Improvement Goal and Financial Impact

The risk adjusted readmission reduction target for CY2014 is a 6.76% reduction compared to CY2013 risk adjusted readmission rates. Hospital specific base period readmission rates and the performance period goal are provided in Appendix C.

A positive incentive magnitude of up to 0.5% of the hospital's inpatient permanent revenue will be provided for hospitals that meet or exceed the 6.76% reduction target, provided that the RY2016 update factor has favorable conditions. For each hospital, the improvement rate is calculated as follows:

Improvement Rate = {[Risk-adjusted readmission rate in CY2014] / [Risk-adjusted readmission rate in CY2013]} – 1

4) Readmission Reduction Incentive Program Reporting

To support hospitals in monitoring their performance during the CY2014 performance period, monthly reports using CRISP EIDs will be provided. This report will indicate the hospitals current CY2014 readmission rate as of the most recent time period. In addition case level data with a readmission flag will be sent out via RepliWeb. The monthly files are based upon preliminary data. Quarterly final results will also be sent out based upon final quarterly dara.

HSCRC staff appreciates the Maryland Hospital Association, hospital, payer, CRISP and other stakeholder collaboration in developing and implementing this policy.

If you have any questions, please email Alyson Schuster at alyson.schuster@maryland.gov or call 410-764-2673.

Appendix A: Hospital Readmission Reduction Incentive Program Calculation

Data Source:
To calculate readmission rates for the Hospital Readmission Reduction Incentive Program, the Inpatient abstract/case mix data with CRISP EIDs (so that patients can be tracked across hospitals) is used for the measurement period plus an extra 30 days. To calculate the risk-adjusted readmission rate for the CY2013 base period and the CY2014 performance period, data from January 1 through December 31, plus 30 days in January of the next year would be used.

SOFTWARE: APR-DRG Version 31

Calculation:

Risk-Adjusted Readmission Rate = $\dfrac{\text{(Observed Readmissions)}}{\text{(Expected Readmissions)}}$ X Statewide Readmission Rate

Numerator: Number of observed hospital specific unplanned readmissions.

Denominator: Number of expected hospital specific unplanned readmissions based upon discharge APR-DRG and Severity of Illness. See below for how to calculate expected readmissions adjusted for APR-DRG SOI.

Risk Adjustment Calculation:
- Calculate the Statewide Readmission Rate without Planned Readmissions.
    - Statewide Readmission Rate = Total number of readmissions with exclusions removed / Total number of hospital discharges with exclusions removed.
- For each hospital, calculate the number of observed unplanned readmissions.
- For each hospital, calculate the number of expected unplanned readmissions based upon discharge APR-DRG and Severity of Illness (see below for description). For each hospital, cases are removed if the discharge APR-DRGs and Severity of Illness cell has less than 2 total cases in the base period data (CY2013).
- Calculate ratio of observed (O) readmissions over expected (E) readmissions. A ratio of > 1 means that there were more observed readmissions than expected based upon that hospital's case mix. A ratio < 1 means that there were fewer observed readmissions than expected based upon that hospital's case mix.
- Multiply O/E ratio by the statewide rate to get risk-adjusted readmission rate by hospital.

Expected Values:
The expected value of readmissions is the number of readmissions a hospital, given its mix of patients as defined by discharge APR DRG category and severity of illness level, would have experienced had its rate of readmissions been identical to that experienced by a reference or normative set of hospitals. Currently, HSCRC is using state average rates as the benchmark.

The technique by which the expected value or expected number of readmissions is calculated is

called indirect standardization. For illustrative purposes, assume that every discharge can meet the criteria for having a readmission, a condition called being "at risk" for a readmission. All discharges will either have no readmissions or will have one readmission. The readmission rate is proportion or percent of admissions which have a readmission.

The rates of readmissions in the normative database are calculated for each APR DRG category and its severity of illness levels by dividing the observed number of readmissions by the total number of discharges. The readmission norm for a single APR DRG severity of illness level is calculated as follows:

Let:

N = norm
P = Number of discharges with a readmission
D = Number of discharges that can potentially have a readmission
i = An APR DRG category and a single severity of illness level

$$N_i = \frac{P_i}{D_i}$$

For this example, this number is displayed as readmissions per discharge to facilitate the calculations in the example. Most reports will display this number as a rate per one thousand.

Once a set of norms has been calculated, they can be applied to each hospital. For this example, the computation is for an individual APR DRG category and its severity of illness levels. This computation could be expanded to include multiple APR DRG categories or any other subset of data, by simply expanding the summations.

Consider the following example for an individual APR DRG category.

Table 1 Expected Value Computation Example

1 Severity of illness Level	2 Discharges at risk for readmission	3 Discharges with Readmission	4 Readmissions per discharge	5 Normative Readmissions per discharge	6 Expected # of Readmissions
1	200	10	.05	.07	14.0
2	150	15	.10	.10	15.0
3	100	10	.10	.15	15.0
4	50	10	.20	.25	12.5
Total	500	45	.09		56.5

For the APR DRG category, the number of discharges with readmission is 45, which is the sum of discharges with readmission (column 3). The overall rate of readmissions per discharge, 0.09, is calculated by dividing the total number of discharges with a readmission (sum of column 3) by the total number of discharges at risk for readmission (sum of column 2), i.e., 0.09 = 44/500. From the normative population, the proportion of discharges with readmissions for each severity of illness level for that APR DRG category is displayed in column 5. The expected number of readmissions for each severity of illness level shown in column 6 is calculated by multiplying the number of discharges at risk for a readmission (column 2) by the normative readmissions per discharge rate (column 5) The total number of readmissions expected for this

APR DRG category is the expected number of readmissions for the severity of illness levels.

In this example, the expected number of readmissions for this APR DRG category is 56.5 compared to the actual number of discharges with readmissions of 45. Thus the hospital had 11.5 fewer actual discharges with readmissions than were expected for this APR DRG category. This difference can be expressed as a percentage difference as well.

APR DRG by SOI categories are excluded from the computation of the actual and expected rates when there are only zero or one at risk admission statewide for the associated APR DRG by SOI category.

Appendix B: Readmission Exclusions Frequently Asked Questions

Are the following scenarios considered a readmission?

1. Baby is born and discharged home, and then returns for an acute issue that requires an inpatient admission.

    Answer: Yes this would count as a readmission if the second admission occurs within 30 days of the first discharge.

2. Behavioral health patient is discharged home and then returns for a second behavioral health admission.

    Answer: Yes this would count as a readmission if the second admission occurs within 30 days of the first discharge.

3. Behavioral health patient is discharged home and then returns for an inpatient medical admission.

    Answer: Yes this would count as a readmission if the second admission occurs within 30 days of the first discharge.

4. Behavioral health patient is transferred to inpatient medical then returned to inpatient behavioral health unit, would the transfer to medical or the transfer back to behavioral health be a readmission?

    Answer: No, as long as the transfer occurs on the same day such that the discharge from the behavioral health unit or inpatient medical unit is the same as the subsequent admission date.

5. Behavioral health patient is discharged home and then returns for an inpatient medical admission.

    Answer: Yes this would count as a readmission if the second admission occurs within 30 days of the first discharge.

6. Patient is discharged home after an inpatient medical admission and returns for behavioral health unit admission.

    Answer: Yes this would count as a readmission if the second admission occurs within 30 days of the first discharge.

7. Patient leaves an inpatient hospital against medical advice (AMA) and then returns for inpatient medical admission.

    Answer: Yes this would count as a readmission if the second admission occurs within 30 days of the first discharge.

8. Patient is discharged from an inpatient hospital to a SNF and then returns for rehab admission.

    Answer: If the rehab admissions is identified as a planned admission in the CMS logic it will not be counted as readmissions.

9. Patient is discharged from an inpatient hospital and then returns for an elective admission.

Answer: No, if it is listed in the CMS planned admission list and has no complications. HSCRC is using the CMS planned readmission algorithm v2 with the addition of all deliveries to assign planned admissions.

10. Patient is discharged home after an elective admission and returns for an inpatient medical admission.

Answer: Yes this would count as a readmission if the admission after the elective procedure is not planned and occurs within 30 days of the elective admission discharge.

11. Patient leaves an inpatient hospital against medical advice (AMA) and then returns for inpatient medical admission.

Answer: Yes this would count as a readmission if the second admission occurs within 30 days of the first discharge.

12. A patient has a one day stay and then is readmitted several days later.

Answer: Yes this would count as a readmission if the second admission occurs within 30 days of the first discharge.

13. If a patient is transferred from an inpatient unit to another hospital, is discharged from that second hospital, and then is readmitted to the first hospital within 30 days, does this count as a readmission? Which hospital is counted as having the readmission?

Answer: In this scenario the initial transfer to the second hospital is not counted as a readmission as long as the transfer occurs on the same day. The admission back to the first hospital within 30 days of discharge from second hospital (but not on the same day as discharge since that would be counted as a transfer) is counted as a readmission for the second hospital.

Additional questions:

14. Are elective admissions counted in the numerator or denominator?

Answer: Elective admissions would never be in the numerator since they are planned, however they will be counted in the denominator since they could have a subsequent unplanned admission within 30 days of discharge.

15. If a patient expires during a readmission, does the readmission count in the numerator and denominator?

Answer:

If we identify the two admissions as following,

Admission 1 = will be in the denominator

Admission 2 (patient Expired) = will be in the numerator but not in the denominator

The admission 2 is not counted in the denominator because they cannot have a subsequent readmission.

Appendix C: Base Period Risk-Adjusted Readmission Rates and Performance Goal

HOSPITAL ID	HOSPITAL NAME	TOTAL NUMBER OF HOSPITAL INPATIENT DISCHARGES*	TOTAL NUMBER OF READMISSIONS^	PERCENT READMISSIONS	TOTAL NUMBER OF EXPECTED READMISSIONS	READMISSION RATIO	RISK ADJUSTED RATE	CY2014 Performance Period Risk-Adjusted Readmission Goal for Incentive
A	B	C	D	E = D/C	F	G = D /F	H = G * E for State	I= H * (1-6.76%)
210001	MERITUS	16,969	1,873	11.04%	2,045	0.92	11.36%	10.59%
210002	UNIVERSITY OF MARYLAND	31,988	4,915	15.37%	4,459	1.10	13.67%	12.75%
210003	PRINCE GEORGE	12,065	1,132	9.38%	1,402	0.81	10.02%	9.34%
210004	HOLY CROSS	34,305	2,522	7.35%	2,821	0.89	11.09%	10.34%
210005	FREDERICK MEMORIAL	18,330	1,823	9.95%	2,178	0.84	10.38%	9.68%
210006	HARFORD	4,419	661	14.96%	744	0.89	11.02%	10.28%
210008	MERCY	19,031	2,014	10.58%	1,804	1.12	13.85%	12.91%
210009	JOHNS HOPKINS	47,733	7,683	16.10%	6,847	1.12	13.92%	12.98%
210010	DORCHESTER	2,233	342	15.32%	384	0.89	11.05%	10.30%
210011	ST. AGNES	18,463	2,445	13.24%	2,287	1.07	13.26%	12.37%
210012	SINAI	25,063	3,532	14.09%	3,284	1.08	13.34%	12.44%
210013	BON SECOURS	5,342	1,510	28.27%	1,022	1.48	18.33%	17.09%
210015	FRANKLIN SQUARE	23,162	2,931	12.65%	2,891	1.01	12.58%	11.73%
210016	WASHINGTON ADVENTIST	12,769	1,412	11.06%	1,621	0.87	10.81%	10.08%
210017	GARRETT COUNTY	2,141	129	6.03%	222	0.58	7.21%	6.72%
210018	MONTGOMERY GENERAL	8,571	1,119	13.06%	1,155	0.97	12.02%	11.21%
210019	PENINSULA REGIONAL	18,983	2,081	10.96%	2,403	0.87	10.74%	10.02%
210022	SUBURBAN	12,437	1,542	12.40%	1,749	0.88	10.94%	10.20%
210023	ANNE ARUNDEL	31,210	2,688	8.61%	2,785	0.97	11.97%	11.16%
210024	UNION MEMORIAL	12,630	2,078	16.45%	1,884	1.10	13.68%	12.76%
210027	WESTERN MARYLAND HEALTH SYSTEM	12,476	1,492	11.96%	1,558	0.96	11.88%	11.08%
210028	ST. MARY	8,129	925	11.38%	947	0.98	12.12%	11.30%
210029	HOPKINS BAYVIEW MED CTR	20,380	3,314	16.26%	2,803	1.18	14.67%	13.68%
210030	CHESTERTOWN	1,841	320	17.38%	299	1.07	13.28%	12.38%
210032	UNION HOSPITAL OF CECIL COUNT	5,469	589	10.77%	750	0.79	9.74%	9.08%
210033	CARROLL COUNTY	11,762	1,410	11.99%	1,489	0.95	11.75%	10.95%
210034	HARBOR	8,941	1,032	11.54%	1,002	1.03	12.78%	11.91%
210035	CHARLES REGIONAL	8,159	982	12.04%	1,056	0.93	11.54%	10.76%
210037	EASTON	8,314	790	9.50%	937	0.84	10.46%	9.75%
210038	UMMC MIDTOWN	6,147	1,416	23.04%	1,106	1.28	15.88%	14.81%
210039	CALVERT	6,905	634	9.18%	820	0.77	9.59%	8.94%
210040	NORTHWEST	9,426	1,591	16.88%	1,513	1.05	13.05%	12.16%
210043	BALTIMORE WASHINGTON MEDICAL CENTER	17,745	2,809	15.83%	2,536	1.11	13.74%	12.81%
210044	G.B.M.C.	19,977	1,641	8.21%	1,920	0.85	10.60%	9.89%
210045	MCCREADY	283	49	17.31%	51	0.96	11.92%	11.11%
210048	HOWARD COUNTY	18,065	1,758	9.73%	1,855	0.95	11.76%	10.96%
210049	UPPER CHESAPEAKE HEALTH	13,141	1,468	11.17%	1,593	0.92	11.43%	10.66%
210051	DOCTORS COMMUNITY	10,131	1,671	16.49%	1,658	1.01	12.50%	11.66%
210055	LAUREL REGIONAL	6,251	775	12.40%	731	1.06	13.15%	12.26%
210056	GOOD SAMARITAN	11,482	2,083	18.14%	1,901	1.10	13.59%	12.67%
210057	SHADY GROVE	24,601	2,020	8.21%	2,316	0.87	10.82%	10.09%
210058	REHAB & ORTHO	2,543	273	10.74%	297	0.92	11.40%	10.63%
210060	FT. WASHINGTON	2,213	319	14.41%	317	1.01	12.48%	11.64%
210061	ATLANTIC GENERAL	3,055	455	14.89%	487	0.93	11.59%	10.81%
210062	SOUTHERN MARYLAND	14,481	1,770	12.22%	1,929	0.92	11.38%	10.61%
210063	UM ST. JOSEPH	16,552	1,683	10.17%	1,844	0.91	11.32%	10.56%
	STATE	626,313	77,701	12.41%	77,701	1.00	12.41%	11.57%

*This is the total number of discharges that are eligible for a readmission and not necessarily total discharges.

^ This is the number of readmissions after all adjustments, including removal of planned admissions.