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CENTER FOR MEDICARE

DATE: October 4, 2022

TO: All Medicare Advantage Organizations, Medicare-Medicaid Plans, PACE organizations, and Demonstrations

FROM: Jennifer R. Shapiro, Director, Medicare Plan Payment Group

SUBJECT: Information on 2023 CMS-HCC ESRD Risk Adjustment Model and Updates to Monthly Membership (MMR) and Model Output Reports (MORs)

I. 2023 CMS-HCC ESRD Risk Adjustment model implementation

As described in the 2023 Advance Notice and Rate Announcement, CMS has revised the CMS-Hierarchical Condition Category (HCC) End-Stage Renal Disease (ESRD) model used to pay for beneficiaries enrolled in Medicare Advantage plans and certain demonstrations (including the Medicare-Medicaid Plans (MMPs)). CMS is currently working to make system changes for payments beginning in January 2023.

For CY 2023, CMS is implementing an updated ESRD model for payment to Medicare Advantage organizations (we will continue to use the 2019 ESRD model for PACE organizations) that is calibrated on more recent data, using diagnoses filtered using the approach we currently use to filter encounter data records. It also incorporates improvements made to the Part C CMS-HCC model, specifically the clinical updates and revised segmentation, which accounts for the differential cost patterns of dual eligible beneficiaries. While the basic structure of the 2023 ESRD model is the same as that of the 2020 ESRD model, CMS implemented the following updates for CY 2023:

- Updates to the clinical version of the ESRD model from version 21 to version 24.
- Updates to the data years used for model calibration from 2014 diagnoses to predict 2015 costs to 2018 diagnoses to predict 2019 costs.
- Changes to account for differences in cost patterns for dual eligible beneficiaries by:
    - Breaking out the single functioning graft community model into four separate model segments (non-dual / partial benefit dual aged, non-dual / partial benefit dual non-aged, full benefit dual aged, and full benefit dual non-aged) with relative factors that are independently developed for each segment, reflecting the specific relative costs for an HCC for that subgroup;

    - Updating interaction terms, including eight Medicaid interaction variables for the dialysis continuing enrollee segment; and
    - Including the following add-on factors for certain segments:
        - Partial benefit dual factors for the functioning graft non-dual /partial benefit dual aged, functioning graft non-dual / partial benefit dual non-aged, and functioning graft LTI segments; and
        - Institutional add-on factors for the dialysis continuing enrollee and functioning graft LTI models.
- Updates to model adjustments by:
    - Removing the actuarial adjustment from the functioning graft LTI segment since it is no longer needed;
    - Applying separate aged and non-aged adjustments to costs of the continuing enrollees in the dialysis new enrollee modeling sample to make them more comparable to true new enrollees and to better target cost differences between the subsamples; and
    - Adjusting the functioning graft model new enrollee coefficients separately for the beneficiaries who are 4–9 months and 10+ months post-transplant.

a. 2023 CMS-HCC ESRD model segment selection

For 2023, the CMS-HCC ESRD model will include new enrollee, continuing enrollee, functioning graft, and long term institutional (LTI) segments. To improve the model prediction by dual eligibility and aged/disabled status for 2023, the ESRD model update includes breaking out the single functioning graft community model into four separate model segments. The logic for determining whether a beneficiary is a new enrollee, or whether to use either an LTI or a community risk score remains the same as previously defined. For full risk beneficiaries at final reconciliation, CMS will continue to apply either an LTI or a community risk score on a month-by-month basis (for more info, please reference the Medicare Managed Care Manual, Chapter 7 – Risk Adjustment). With the revised ESRD model for 2023, if a beneficiary has a community status for a payment month, CMS will apply one of six community risk scores, depending on each beneficiary's aged versus disabled status for the year, and their dual status for the month.

b. Determining the appropriate community or ESRD score to apply for a month

Since 2017, we have used a process to update Medicaid status on a rolling monthly basis in order to choose a dual status to use for each month's payment. Prior to final reconciliation for the year, MARx will use the Medicaid status that is in effect three months prior to the current payment month to determine the Community Risk Adjustment Factor. At final reconciliation, we will use the beneficiary's Medicaid status as of the actual payment month to determine the risk score.

Currently, this process for determining Medicaid status only applies to Part C Community risk adjustment factors. Starting in 2023, this process will also be used for ESRD Dialysis and Functioning Graft risk adjustment factors.

We use this method to determine Medicaid status for the following reasons:

1. When MARx initially calculates the payment for a month, the beneficiary's dual status for that month is not yet known.
2. Our research indicates that most beneficiaries who are full dual remain in this status for all or most of a year. We concluded, therefore, that the approach outlined above is the best way to minimize both the potential to generate multiple adjustment records for an enrollee throughout a year, and the amount of revenue that is paid or netted out of payment at final reconciliation.

CMS will continue to determine a beneficiary's aged versus disabled status for an entire payment year; age is determined as of February 1st for a payment year for most beneficiaries.

c. Medicaid status data sources

For all applicable model segments, dual status designation in the recalibrated 2023 ESRD model is based on payment month status, which is a continuation of how we treat dual status in the CY 2020 CMS-HCC model. For payment purposes, we will use Medicaid data from three sources to identify dual eligibility status when calculating risk scores with the 2023 ESRD model: the MMA State files; the Point of Sale data; and the monthly Medicaid file that the Commonwealth of Puerto Rico submits to CMS. We will identify full benefit dual status for a month using dual status codes 02, 04, and 08, and presence on the Puerto Rico file to indicate full dual status. We will identify partial benefit dual status for a month using dual codes 01, 03, 05, and 06.

d. Medicaid status reporting

CMS will continue to provide to plans the monthly dual statuses and corresponding dual status codes for their beneficiaries who are full or partial duals on The Medicare Advantage Medicaid Status Report. CMS will also continue to send to plans the Medicare Advantage Medicaid Status data file to assist in predicting future revenue impacts under the CMS-HCC risk adjustment model, and to assist in benefit coordination. Each report will provide the most recent Medicaid information on plan enrollees, back to the beginning of the payment. See the PCUG, https://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-technology/mapdhelpdesk/Plan_Communications_User_Guide.html

II. Updates to reports related to 2023 CMS-HCC ESRD model changes

a. Monthly Membership Report (MMR) data fields:

On the MMR report, the following fields will be modified for use with the new model, starting with January 2023 payment.

- Risk Adjustment Factor Type Code (Field 46). The following new Factor Type codes highlighted in yellow will be added as possible values.

Item	Field	Size	Position	Description
46	Risk Adjustment Factor Type Code	2	189-190	The type of Part C Risk Adjustment Factor used to calculate this payment or adjustment. C = Community (Adjustments before 2017; PACE only beginning 1/2017 and ending 12/2019) C1 = Community Post Graft 4-9 (ESRD) (Adjustments before 2023) C3= Community Post Graft 4-9 (ESRD) Full Dual C4= Community Post Graft 4-9 (ESRD) Partial Dual C5= Community Post Graft 4-9 (ESRD) Non-Dual C2 = Community Post Graft 10+ (ESRD) (Adjustments before 2023) C6= Community Post Graft 10+ (ESRD) Full Dual C7= Community Post Graft 10+ (ESRD) Partial Dual C8= Community Post Graft 10+ (ESRD) Non-Dual CF = Community Full Dual CP = Community Partial Dual CN = Community Non-Dual D = Dialysis (ESRD) (Adjustments before 2023) D1 = Dialysis (ESRD) Full Dual D2 = Dialysis (ESRD) Partial Dual or Non-dual E = New Enrollee ED = New Enrollee Dialysis (ESRD) E1 = New Enrollee Post Graft 4-9 (ESRD) E2 = New Enrollee Post Graft 10+ (ESRD) G1 = Graft I (ESRD) G2 = Graft II (ESRD) I = Institutional I3 = Institutional Dialysis (ESRD) Full Dual I4 = Institutional Dialysis (ESRD) Partial or Non-Dual I1 = Institutional Post Graft 4-9 (ESRD) (Adjustments before 2023) I5 = Institutional Post Graft 4-9 (ESRD) Full Dual I6 = Institutional Post Graft 4-9 (ESRD) Partial Dual I7 = Institutional Post Graft 4-9 (ESRD) Non-Dual I2 = Institutional Post Graft 10+ (ESRD) (Adjustments before 2023) I8 = Institutional Post Graft 10+ (ESRD) Full Dual I9 = Institutional Post Graft 10+ (ESRD) Partial Dual IA = Institutional Post Graft 10+ (ESRD) Non-Dual SE = New Enrollee Chronic Care SNP PA = PACE Dialysis Factor PB = PACE New Enrollee Dialysis Factor PC = PACE Community Post Graft 4-9 PD = PACE Institutional Post Graft 4-9 PE = PACE New Enrollee Post Graft 4-9 PF = PACE Community Post Graft 10+ PG = PACE Institutional Post Graft 10+ PH = PACE New Enrollee Post Graft 10+ PI = PACE Community Full Dual PJ = PACE Community Partial Dual PK = PACE Community Non-Dual PL = PACE Graft I

Item	Field	Size	Position	Description
				PM = PACE Graft II Note: The actual RAF values are in fields 24 – 25.

- Medicaid Full/Partial/Non-dual (Field 39): Since 2017, this field has referred to the Medicaid status that is in effect for the month used to determine the appropriate community risk factor for a beneficiary. Specifically, this field reflects the Medicaid status that was in effect three months prior to the current payment month, or the actual monthly status at final reconciliation. Starting in 2023, Field 39 will also refer to the Medicaid status in the month that was used to determine the ESRD Dialysis or ESRD Post Graft risk score. For all other risk factor types this field is informational.
    - The description for Field 39 has been updated to indicate that it is now also applicable to ESRD payment.

Item	Field	Size	Position	Description
39	Medicaid Full/Partial/Non-dual	1	171	The Medicaid status that is in effect for the month used to determine the appropriate: • Non-ESRD community (enrollees in MAOs or PACE organizations) or • ESRD risk factor for a beneficiary (MAOs only; not applicable for beneficiaries enrolled in a PACE organization with ESRD status). (Medicaid status = Current Payment Month (CPM) minus 3 months) For all other risk factors, this field is informational. 1 = Beneficiary is determined to be full or partial Medicaid (F or P) 0 = Beneficiary is not Medicaid (N) Space = This is a retroactive adjustment for a month prior to January 2017.

- Medicaid Dual Status Code (Field 84): As it does today, this field will be populated in parallel with the "Medicaid Full/Partial/Non-dual" Field 39, but will provide the Dual Status Code used to determine whether a beneficiary is full, partial, or non-dual.
    - The description for Field 84 has been updated to indicate that it is now also applicable to ESRD payment.

Item	Field	Size	Position	Description
84	Medicaid Dual Status Code	2	446-447	This field reports the Medicaid dual status code that is in effect for the month used to determine the appropriate: • Non-ESRD community (enrollees in MAOs or PACE organizations) or • ESRD risk score (MAOs only; not applicable for beneficiaries enrolled in a PACE organization with ESRD status). Otherwise, the field is informational. Entitlement status for the dual eligible beneficiary for the month used when determining Medicaid Status. When Field 39 = 1 or Field 19 = Y: 01 = Eligible - entitled to Medicare- QMB only (Partial Dual) 02 = Eligible - entitled to Medicare- QMB AND Medicaid coverage (Full Dual) 03 = Eligible - entitled to Medicare- SLMB only (Partial Dual) 04 = Eligible - entitled to Medicare- SLMB AND Medicaid coverage (Full Dual) 05 = Eligible - entitled to Medicare- QDWI (Partial Dual) 06 = Eligible - entitled to Medicare- Qualifying individuals (Partial Dual) 08 = Eligible - entitled to Medicare- Other Dual Eligibles (Non QMB, SLMB, QDWI or QI) with Medicaid coverage (Full Dual) 09 = Eligible - entitled to Medicare – Other Dual Eligibles but without Medicaid coverage (Non-Dual) 10 = Other Full Dual 99 = Unknown When Field 39 = 0: • 00 = No Medicaid Status When Field 39 is spaces: • Spaces

- Medicaid Add-on Factor Indicator (Field 21): Prior to 2023, this field indicates when the Medicaid Add-on factor was used for PACE, ESRD or LTI risk scores. Starting in 2023,

the Medicaid Add On will no longer be applicable to ESRD Dialysis or ESRD Post Graft risk factors used in MA payment, but will continue to apply to ESRD risk factors used for PACE organizations, and LTI risk factors used for all organizations.

- The description for Field 21 has been updated to indicate that it is only applicable to payment for PACE or LTI risk factors stating in 2023.

Item	Field	Size	Position	Description
21	Medicaid Add-on Factor Indicator	1	68	Indicator that the Medicaid Add-on factor was used for this payment or adjustment for a beneficiary: • Before 2023 -- This field indicates when the Medicaid Add-on factor was used for: o PACE, o ESRD, or o LTI risk scores. • After 2023 -- this field indicates when the Medicaid Add-on factor was used for: o PACE ESRD, or o Any beneficiary who is in LTI status, enrolled in any plan. Y = A RASS supplied Medicaid add-on factor is used in the payment Space = No Medicaid Add-on was used

b. PY 2023 Model Output Reports

CMS distributes two Model Output Data Files – one for Part C and one for Part D. Within the data files, there are Model Output Reports (MORs) with unique record types that correspond to each model being run for payment. We distribute these MORs to plans to identify the HCCs used to calculate risk scores for each of their enrolled beneficiaries. This memo provides information regarding changes to the MORs that will be generated for the PY 2023 initial, midyear, and final reconciliation payments.

Note: there will be no changes to the MOR record types for PACE organizations in PY 2023.

The record types for PY 2023 are outlined as follows:

Record Types and Model Versions for Payment Year 2023

2023 Model Run Data Source	Model	Model Version	MOR Record Type
	ESRD and ESRD Post Graft	V24	L

MOR Record Types for Encounter Data and FFS Based HCCs	CMS-HCC Aged/Disabled (non-PACE and non-ESRD)	V24	J
	RxHCC	V08	6
MOR Record Types for PACE Organizations (RAPS, FFS, and Encounter Data)	PACE-ESRD	V21	B
	PACE CMS-HCC (non-ESRD)	V22	K
	RxHCC	V05	5

The Plan Communications User Guide (PCUG, https://www.cms.gov/Research-Statistics-Data-and-Systems/CMS-Information-technology/mapdhelpdesk/Plan_Communications_User_Guide.html) has been updated to reflect the MOR record layouts that will be used in PY2023.

Policy questions related to the CMS-HCC ESRD risk adjustment model and 2023 risk adjustment models should be submitted to the risk adjustment policy mailbox (riskadjustmentpolicy@cms.hhs.gov).

Operational questions related to the MORs should be submitted to the risk adjustment operations mailbox (riskadjustmentoperations@cms.hhs.gov).

Questions related to the MMR and MARx should be submitted to the MAPD Helpdesk (mapdhelp@cms.hhs.gov).

Please use "HPMS Memo – Information on 2023 CMS-HCC ESRD Risk Adjustment Model and Updates to Monthly Membership (MMR) and Model Output Reports (MOR)" as the subject in all communications regarding this guidance.

Addendum: Risk score changes that can occur for Payment Year 2023

Below is a summary of how risk scores are updated throughout the year. The application of initial, mid-year, and final risk scores, and the application of LTI v community status, is not changing. The application of Medicaid status summarized below is how we have been applying and adjusting Medicaid status for Part C (non-ESRD) risk scores since 2017; starting in 2023, this approach will now also be used for ESRD risk scores used to pay MA plans.

January 2023	• Risk score used is the initial risk score. • Community versus LTI status is based on the data collection period. • Medicaid status (full, partial, or non-dual) is based on status in October 2022.

On or about July 2023	• Mid-year risk scores are applied in payment.
	• LTI/community status is updated, based on the data collection period.
	• A beneficiary's risk score will change if:
	  o Their mid-year risk score differs from their initial risk score. If this is the case, the mid-year risk score is used from July through the end of the year, and payments for January – June are adjusted.
	  o Their community/LTI status has changed.

On or about June 2024	• Final reconciliation for payment year 2023 takes place.
	• Final risk scores are applied in payment.
	• LTI/community status is determined on a month-by-month basis
	• At final reconciliation, Medicaid status is no longer determined based on the status three month prior. Instead, the actual Medicaid status for each month is used to determine which community or Non-PACE ESRD risk score to apply in payment.
	• A beneficiary's risk score will change if
	  o Their risk score changed from mid-year 2023 to final 2023
	  o Their monthly Medicaid status changed
	  o Their LTI/community status changed for a month.