

---

*Maryland Department of Health*

# **TIME-WEIGHTED CMI RESIDENT ROSTER USER GUIDE**

**Myers and Stauffer LC  
Final March 2020**

# Contents

- 1 REGULATORY REQUIREMENTS .....3**
  - INTRODUCTION.....3
  - SCHEDULE OF CASE MIX ADJUSTMENTS .....3
  - TIME-WEIGHTED CMI RESIDENT ROSTERS .....3
  
- 2 TIME-WEIGHTED CMI RESIDENT ROSTER ELEMENTS.....4**
  - RUG-IV VERSION 1.03.....4
  - CASE MIX INDEX .....4
  - IDENTIFICATION OF MDS ASSESSMENTS AND TRACKING FORMS .....7
  
- 3 TIME-WEIGHTED CMI RESIDENT ROSTER DETAILS .....8**
  - DISTRIBUTION SCHEDULE .....8
  - SELECTION OF RESIDENTS AND ASSESSMENTS .....8
  - RESIDENT ROSTER FORMAT .....9
    - MDS Resident Identifiers .....9
    - Resident Roster Elements .....10
    - Resident Roster Summary Page.....10
  - CALCULATION OF DAYS .....11
    - General Rules .....11
    - Inactive/Expired Assessment .....11
    - Late Admission Assessment .....12
    - Sequential Discharge Assessments.....13
    - Entry Tracking Form .....13
    - Missing or Out of Order Assessments .....15
    - Ventilator Designated Assessments .....16
  - DETERMINATION OF PAYMENT SOURCE .....17
  - REVIEW OF RESIDENT ROSTER .....17
  - RESIDENT ROSTER CMI CALCULATION.....18
  
- 4 RESOURCES .....19**
  - WEBSITES.....19
  - MANUALS .....19
  - HELP DESK .....20
  
- 5 GLOSSARY .....21**
  - COMMON TERMS AND ABBREVIATIONS.....21

# 1 REGULATORY REQUIREMENTS

---

## INTRODUCTION

The Maryland Department of Health (MDH) worked with the Health Facilities Association of Maryland (HFAM), The LifeSpan Network and Myers and Stauffer LC to develop a case mix reimbursement system for Maryland's Medical Assistance nursing facilities. The case mix system was phased in beginning with rates effective January 1, 2015. A portion of the rate is adjusted based on the case mix of the residents in each facility, meaning the measure of the intensity of care and services used by similar residents.

The source of the case mix rate element is the Minimum Data Set (MDS) which is transmitted electronically to the Quality Improvement and Evaluation System (QIES) Assessment Submission and Processing (ASAP) System. This Time-Weighted CMI Resident Roster User Guide describes the process in which these MDS assessments are used to develop the case mix index calculation used in the reimbursement rate.

---

## SCHEDULE OF CASE MIX ADJUSTMENTS

The case mix reimbursement rates are adjusted quarterly based on the change in case mix of each facility according to the following schedule.

<b>MDS Data Preceding the Rate Period:</b>	<b>Used to Adjust Rates Effective:</b>
January 1 – March 31	July 1 – September 30
April 1 – June 30	October 1 – December 31
July 1 – September 30	January 1 – March 31
October 1 – December 31	April 1 – June 30

---

## TIME-WEIGHTED CMI RESIDENT ROSTERS

Resident Rosters are a list of residents for each Medical Assistance certified nursing facility, displaying each resident who resided in the nursing facility during the Resident Roster quarter based on MDS Assessments and Tracking Forms transmitted to the QIES ASAP System and accepted by that system. A case mix index is assigned to the period of the quarter related to each MDS Assessment and Tracking Form. From this information, a day weighted case mix index is calculated for each non-vent approved facility for all Medicaid and All residents. For a facility determined by the Department to meet the standards for ventilator care per COMAR 10.07.02; a day weighted case mix index is calculated for all Medicaid, Medicaid Vent only, Medicaid excluding Vent, and All residents.

# 2 TIME-WEIGHTED CMI RESIDENT ROSTER ELEMENTS

---

## RUG-IV VERSION 1.03

The system for grouping a nursing facility's residents according to their clinical and functional status identified from MDS data is the Resource Utilization Group, version IV (RUG-IV), 1.03, 48-Groups. This grouper uses certain MDS data elements to place assessments into one of the RUG groups based on similar resource needs. The responsibility for calculating the RUG-IV category rests with MDH or its designated contractor.

---

## CASE MIX INDEX

The Case Mix Index (CMI) set is the standard nursing-only CMI set published by CMS for RUG-IV 1.03, 48-Groups identified as F01.

The days attributable to inactive/expired assessments or tracking forms are categorized as BC1.

Index maximization is used to assign each resident to the final RUG-IV classification.

RUG-IV Classification		CMI 48-Group
ES3	Extensive Service	3.00
ES2	Extensive Service	2.23
ES1	Extensive Service	2.22
RAE	Rehabilitation	1.65
RAD	Rehabilitation	1.58
RAC	Rehabilitation	1.36
RAB	Rehabilitation	1.10
RAA	Rehabilitation	0.82

RUG-IV Classification		CMI 48-Group
HE2	Special Care-High	1.88
HE1	Special Care-High	1.47
HD2	Special Care-High	1.69
HD1	Special Care-High	1.33
HC2	Special Care-High	1.57
HC1	Special Care-High	1.23
HB2	Special Care-High	1.55
HB1	Special Care-High	1.22
LE2	Special Care-Low	1.61
LE1	Special Care-Low	1.26
LD2	Special Care-Low	1.54
LD1	Special Care-Low	1.21
LC2	Special Care-Low	1.30
LC1	Special Care-Low	1.02
LB2	Special Care-Low	1.21
LB1	Special Care-Low	0.95
CE2	Clinically Complex	1.39
CE1	Clinically Complex	1.25
CD2	Clinically Complex	1.29
CD1	Clinically Complex	1.15
CC2	Clinically Complex	1.08
CC1	Clinically Complex	0.96
CB2	Clinically Complex	0.95
CB1	Clinically Complex	0.85
CA2	Clinically Complex	0.73
CA1	Clinically Complex	0.65
BB2	Behavioral Symptoms & Cognitive Performance	0.81
BB1	Behavioral Symptoms & Cognitive Performance	0.75
BA2	Behavioral Symptoms & Cognitive Performance	0.58
BA1	Behavioral Symptoms & Cognitive Performance	0.53

<b>RUG-IV Classification</b>		<b>CMI 48-Group</b>
PE2	Reduced Physical Function	1.25
PE1	Reduced Physical Function	1.17
PD2	Reduced Physical Function	1.15
PD1	Reduced Physical Function	1.06
PC2	Reduced Physical Function	0.91
PC1	Reduced Physical Function	0.85
PB2	Reduced Physical Function	0.70
PB1	Reduced Physical Function	0.65
PA2	Reduced Physical Function	0.49
PA1	Reduced Physical Function	0.45
BC1	Inactive/Expired	0.45

## IDENTIFICATION OF MDS ASSESSMENTS AND TRACKING FORMS

The identification of the MDS assessments, tracking forms, and item set code on the Resident Roster depends on the coding at A0310 as shown in the following tables.

OBRA Assessments (A0310A)	MDS 3.0 Item Set Code (ISC)	MDS 3.0 (A0310A) OBRA	MDS 3.0 (A0310B)	MDS 3.0 (A0310F)
Admission	NC	01	99	99
Quarterly	NQ	02	99	99
Annual	NC	03	99	99
Significant change in status	NC	04	99	99
Significant correction of prior comprehensive assessment	NC	05	99	99
Significant correction of prior quarterly assessment	NQ	06	99	99

PPS (Medicare) Assessment (A0310B)	MDS 3.0 Item Set Code (ISC)	MDS 3.0 (A0310A)	MDS 3.0 (A0310B) PPS	MDS 3.0 (A0310F)
5-day assessment	NP	99	01	99

Discharge Assessments (A0310F)	MDS 3.0 Item Set Code (ISC)	MDS 3.0 (A0310A)	MDS 3.0 (A0310B)	MDS 3.0 (A0310F)
Discharge – return not anticipated	ND	99	99	10
Discharge – return anticipated	ND	99	99	11

MDS Tracking Forms (A0310F)	MDS 3.0 Item Set Code (ISC)	MDS 3.0 (A0310A)	MDS 3.0 (A0310B)	MDS 3.0 (A0310F)
Entry/Re-entry	NT	99	99	01
Discharge – death in facility	NT	99	99	12

In many instances, facilities combine reasons for assessment. For purposes of identifying these records, the MDS assessments are identified on the Resident Roster using the codes in A0310A, A0310B and A0310F in addition to the Item Set Code. The Item Set Code is shown in the RAI Manual in Chapter 2.

For example, the record type shown on the Resident Roster as NT/99/99/01 indicates the Entry Tracking Form and NQ/02/99/99 indicates an OBRA Quarterly not combined with a PPS or Discharge Assessment.

The record type NC/01/01/99 indicates a combined OBRA Admission with a 5-day PPS Assessment.

# 3 TIME-WEIGHTED CMI RESIDENT ROSTER DETAILS

---

## DISTRIBUTION SCHEDULE

The Maryland Web Portal is utilized to distribute Preliminary and Final Time-Weighted Resident Rosters for each quarter to each Medicaid nursing facility. The following schedule is utilized for cutoff dates and report posting date (unless otherwise notified).

<b>Resident Roster Report Schedule</b>	<b>03/31</b>	<b>06/30</b>	<b>9/30</b>	<b>12/31</b>
Preliminary Report Cutoff Date	04/15	07/15	10/15	01/15
Preliminary Report Posting Date for MDS Records Submitted by the Preliminary Report Cutoff Date	05/05	08/05	11/05	02/05
Final Report Cutoff Date	05/25	08/25	11/25	02/25
Final Report Posting Date for MDS Records Submitted by the Final Report Cutoff Date	06/15	09/15	12/15	03/15

---

## SELECTION OF RESIDENTS AND ASSESSMENTS

All residents that have been discharged prior to or on the first day of the Resident Roster quarter will not be listed on the Resident Roster. For example, if the resident is discharged prior to or on the first day of the quarter, and does not return to the nursing facility before the end of the quarter, the resident will not be listed on the Resident Roster. All residents admitted during the quarter will be included.

For each resident listed, assessment and tracking forms are displayed in sequential date order. These records include the latest assessment or tracking form completed, transmitted, and accepted by the QIES ASAP System on or prior to the report cutoff date for the quarter. Additionally, all active assessments or tracking forms completed during the quarter are displayed. The same information is listed for residents admitted during the quarter.



---

## RESIDENT ROSTER FORMAT

### MDS Resident Identifiers

Residents on the Resident Rosters are identified using their name and Resident ID which is the same Resident ID displayed on the Facility Validation Report from CMS. The Resident ID is assigned by the QIES ASAP System based on first name, last name, Social Security Number, gender and date of birth using the information coded on the MDS assessment at the record location in the following table.

MDS 3.0 Location	Description
A0500A	First name
A0500C	Last name
A0600	Social Security Number
A0800	Gender
A0900	Birth Date
Assigned by QIES ASAP System	Resident ID

Any of these identifiers submitted in error on the MDS to the QIES ASAP System might result in assessments being displayed incorrectly.

## Resident Roster Elements

Assessments and tracking forms are identified on the Resident Roster at the record location in the following table.

MDS 3.0 Location	Description
Record Type	Determined from MDS values at A0310 A, B, F.
Target Date	Assessment Reference Date (A2300) or Discharge Date (A2000) or Entry/Reentry Date (A1600).
RUG-IV Classification	The RUG-IV 48-Group assigned to the assessment.
Start Date	Calculated from: <ul style="list-style-type: none"> <li>• a date within the record, or</li> <li>• a date within the preceding record, or</li> <li>• start of the quarter.</li> </ul>
Start Date Field	The MDS field location where the Start Date was obtained if the date was obtained from the MDS assessment.
End Date	Calculated from: <ul style="list-style-type: none"> <li>• a date within the record, or</li> <li>• a date within the following record, or</li> <li>• the last date the record is active, or</li> <li>• the end of the quarter.</li> </ul>
Days	Calculated as the total number of days between the Start Date and End Date, if any.
Case Mix Index	A numerical score assigned to each of the RUG-IV classifications.
Payment Source	Determination of Payment Source; Medicaid, MCDVent, Medicare, or Other.

## Resident Roster Summary Page

The last page of the Resident Roster includes a summary of the calculated days from the detail pages of the Resident Roster for each source of payment summed by RUG-IV classification. For each RUG-IV classification, the assigned CMI is multiplied by the number of days to arrive at the CMI points. The sum of the CMI points divided by the sum of days is the time-weighted average for the payment source.

---

## CALCULATION OF DAYS

The following rules determine the days counted for each resident. Transmission of appropriate assessments in logical sequential order and coded with accurate dates will result in an accurate count of days.

### General Rules

- A. Inactivated records (A0050 = 3) are not considered in the creation of the Resident Roster.
- B. For modified records (A0050 = 2), only the record with the highest Correction Number (X0800) is considered.
- C. For the purpose of the Resident Roster process, the following types of assessment combinations are used only to obtain entry and discharge dates and discharge status.

(ISC)	(A0310A)	(A0310B)	(A0310F)
ND	99	99	10, 11
NT	99	99	01, 12

- D. The calculation of days includes the day of admission. The day of discharge is not included.
- E. Days are counted from the first day of the quarter until either the assessment reference date (A2300) of the next assessment, the end of the quarter or until discharged (day of discharge not included), whichever comes first, unless the maximum number of days for the assessment has been reached.
- F. Hospital bed hold days are not included in the count of days.
- G. Days covered by temporary home visits, temporary therapeutic leave and hospital observational stays less than 24 hours where the hospital does not admit the resident are included in the count of days since CMS does not require a discharge assessment to be completed.

### Inactive/Expired Assessment

- H. CMS requirements allow no more than 92 days between assessments. For purposes of Maryland Medical Assistance reimbursement only, each assessment is considered active for a maximum of 113 days, measured from the assessment reference date (A2300). An assessment that is not followed by any other assessment or discharge assessment or Death in Facility Tracking Form within 113 days of the preceding assessment's reference date does not have additional days counted for that assessment after day 113. The assessment is then considered an inactive or expired assessment. During the inactive period following an expired assessment (starting on day 114) until the start of the next assessment (A2300) or the end of the quarter, days are counted at the inactive/expired RUG-IV classification BC1.

In this example, the Quarterly Assessment was transmitted with the following:

- Assessment reference date (A2300) 10/14/2018

The subsequent Quarterly Assessment was transmitted with the following:

- Assessment reference date (A2300) 03/15/2019

Record Type	Target Date	RUG Class	Start Date	Start Date Field	End Date	Days	Case Mix Index	Payment Source
NQ/02/99/99	10/14/18	CB1	01/01/19		02/03/19	34	0.85	Medicaid
NQ/02/99/99	10/14/18	BC1	02/04/19		03/14/19	39	0.45	Medicaid
NQ/02/99/99	03/15/19	CB1	03/15/19	A2300	03/31/19	17	0.85	Medicaid
						Total Days	90	

Adding 113 days to the A2300 date of the first Quarterly Assessment results in 02/03/2019, meaning the active days covered by the first assessment end on this date. From the 114th day (02/04/2019) until the day prior to the A2300 date of the next Quarterly Assessment (03/15/2019), the days are counted at the delinquent RUG-IV classification BC1. The days from the second Quarterly Assessment count from the ARD (03/15/2019) until the end of the quarter.

### Late Admission Assessment

- I. CMS requirements allow no more than 14 days between the admission entry date (A1600) and the Admission assessment reference date (A2300). For purposes of the Resident Roster, when there are more than 14 days, the entry date is used to begin counting days for the Admission assessment up to a total of 14 days. Any remaining days beginning on day 15 through the day prior to the assessment reference date (A2300) will result in the inactive/expired RUG-IV classification BC1.

In this example, Entry Tracking Form was transmitted with the following:

- Entry date (A1600) 04/12/2018

The Admission Assessment was transmitted with the following:

- Assessment reference date (A2300) 01/24/2019
- Entry date (A1600) on Admission Assessment 04/12/2018

A Discharge Assessment was transmitted with the following:

- Discharge date (A2000) 03/02/2019

Record Type	Target Date	RUG Class	Start Date	Start Date Field	End Date	Days	Case Mix Index	Payment Source
NT/99/99/01	04/12/18	BC1	01/01/19		01/23/19	23	0.45	Medicaid
NC/01/99/99	01/24/19	CC2	01/24/19	A2300	03/01/19	37	1.08	Medicaid
ND/99/99/11	03/02/19		03/02/19	A2000	03/02/19			
						Total days	60	

Inactive days begin on the start of the quarter because the entry date of 04/12/2018 is greater than 14 days prior to the assessment reference date of 01/24/2019 of the Admission Assessment. Days begin counting on the assessment reference date of 01/24/2019 of the Admission Assessment through the day prior to the discharge date of 03/02/2019.

## Sequential Discharge Assessments

- J. When a series of Discharge Assessments is submitted with no assessment in between, the earliest discharge date in the series stops the count of days.

In this example, a Quarterly Assessment precedes the start of the quarter followed by a Discharge Assessment (return anticipated) and then followed by a Discharge Assessment (return not anticipated) transmitted with the following:

Quarterly Assessment:

- Assessment reference date (A2300) 12/10/2018

First Discharge Assessment:

- Discharge date (A2000) 01/15/2019

Second Discharge Assessment:

- Discharge date (A2000) 02/01/2019

Record Type	Target Date	RUG Class	Start Date	Start Date Field	End Date	Days	Case Mix Index	Payment Source
NQ/02/99/99	12/10/18	PB1	01/01/19		01/14/19	14	0.65	Medicaid
ND/99/99/11	01/15/19		01/15/19	A2000	01/15/19			
ND/99/99/10	02/01/19		02/01/19	A2000	02/01/19			
Total Days						14		

The first discharge date of 01/15/2019 stops the count of days for the Quarterly Assessment on the day before the discharge date.

## Entry Tracking Form

- K. If an Entry Tracking Form is not preceded by an assessment for a new stay in the facility and is followed by a Discharge Assessment or Death in Facility Tracking Form, the RUG-IV classification will be assigned as follows for the days starting from the entry date (A1600) to the day prior to the discharge date (A2000) up to a maximum of 14 days:

- LC2** – when discharge status was deceased (A2100 = 08) or transferred to the hospital (A2100 = 03, 05, or 09).
- RAB** – when discharge status was other than death or transferred to the hospital (A2100 = 01, 02, 04, 06, 07, or 99).

In this example, the Entry Tracking Form was transmitted with the following:

- Entry date (A1600) 12/25/2018 and (A1700 = 1, Admission)

The Discharge Assessment was transmitted with the following:

- Discharge date (A2000) 01/07/2019
- Discharge status was deceased (A2100 = 08)

Record Type	Target Date	RUG Class	Start Date	Start Date Field	End Date	Days	Case Mix Index	Payment Source
NT/99/99/01	12/25/18	LC2	01/01/19		01/06/19	6	1.30	Medicaid
NT/99/99/12	01/07/19		01/07/19	A2000	01/07/19			
Total Days						6		

When an Entry Tracking Form is the first and only record for a new resident that is followed by a Discharge Assessment, the RUG-IV classification and associated CMI are based on the discharge status (A2100); either LC2 or RAB. In this case the discharge status is (08) deceased; resulting in a RUG classification of LC2. The Entry Tracking Form must be coded A1700 = 1 (Admission).

- L. Entry Tracking Forms are required to be submitted for each entry or reentry into the nursing facility. The entry date (A1600) indicates the exact date of entry and is used to begin the counting of days. However, the Entry Tracking Form is not an assessment and therefore is unable to be classified.

In this example, a Quarterly Assessment prior to the start of the quarter was followed by a Discharge Assessment (return anticipated). Later, an Entry Tracking Form was submitted followed by an Admission/5-day PPS Assessment with the following:

Quarterly Assessment:

- Assessment Reference Date (A2300) 11/15/2018

Discharge Assessment:

- Discharge date (A2000) 01/06/2019

Entry Tracking Form:

- Entry Date (A1600) 03/01/2019 and (A1700 = 1, Admission)

Admission/5-day PPS Assessment:

- Assessment Reference Date (A2300) 03/13/2019 and the entry date (A1600) 03/01/2019

Record Type	Target Date	RUG Class	Start Date	Start Date Field	End Date	Days	Case Mix Index	Payment Source
NQ/02/99/99	11/15/18	ES2	01/01/19		01/05/19	5	2.23	Medicaid
ND/99/99/11	01/06/19		01/06/19	A2000	01/06/19			
NT/99/99/01	03/01/19		03/01/19	A1600	03/01/19			
NC/01/01/99	03/13/19	ES3	03/01/19	A1600	03/31/19	31	3.00	Medicare
Total Days						36		

Days begin counting for the Quarterly Assessment on the first day of the quarter through the day prior to the discharge date (A2000) 01/06/2019. The Entry Tracking Form is transmitted followed by an Admission/5-day Assessment and begins counting at the entry date, 03/01/2019, through the end of the quarter. The Entry Tracking Form must be coded A1700 = 1 (Admission).

- M. If the Entry Tracking Form is not followed by an assessment, but is preceded by an assessment that has not expired, the remainder of the unexpired days from the preceding assessment is used for the count of days starting at the entry date.

In this example, a Quarterly Assessment prior to the quarter was followed by a Discharge Assessment (return anticipated). Later, an Entry Tracking Form was submitted but was not followed by an Assessment. Records were transmitted with the following:

Quarterly Assessment:

- Assessment Reference Date (A2300) 12/30/2018

Discharge Assessment:

- Discharge date (A2000) 01/06/2019

Entry Tracking Form:

- Entry Date (A1600) 01/15/2019 and (A1700 = 2, Reentry)

Record Type	Target Date	RUG Class	Start Date	Start Date Field	End Date	Days	Case Mix Index	Payment Source
NQ/02/99/99	12/30/18	ES2	01/01/19		01/05/19	5	2.23	Medicaid
ND/99/99/11	01/06/19		01/06/19	A2000	01/06/19			
NT/99/99/01	01/15/19	ES2	01/15/19	A1600	03/31/19	76	2.23	Medicaid
Total Days						81		

The Entry Tracking Form transmitted is not followed by an Assessment. Since there is no new Assessment within 14 days from the reentry date, the RUG-IV classification is taken from the preceding active Assessment. The Entry Tracking Form must be coded A1700 = 2 (Reentry).

If the Entry Tracking Form (indicated as a reentry) is not followed by an Assessment within 14 days, but is preceded by an Assessment that has not expired, the remainder of the unexpired days is used for the count of days starting at the entry date.

### Missing or Out of Order Assessments

- N. When an Admission Assessment is preceded by an active assessment, the days counted for the Admission assessment begin from the assessment reference date (A2300) on the Admission and not the entry date (A1600).

In this example, a Quarterly Assessment was followed by an Admission Assessment with the following:

Quarterly Assessment:

- Assessment Reference Date (A2300) 12/15/2018

Admission/5-day Medicare Assessment:

- Assessment Reference Date (A2300) 02/21/2019 including an entry date (A1600) 02/10/2019

Record Type	Target Date	RUG Class	Start Date	Start Date Field	End Date	Days	Case Mix Index	Payment Source
NQ/02/99/99	12/15/18	LD1	01/01/19		02/20/19	51	1.21	Medicaid
NC/01/01/99	02/21/19	ES1	02/21/19	A2300	03/31/19	39	2.22	Medicare
Total Days						90		

An Admission Assessment should only be completed on admission and should not immediately follow another active RUGgale Assessment. This is considered "Out of Sequence".

## Ventilator Designated Assessments

- O. Residents of approved facilities that qualify for a separate ventilator rate are identified in the payment source column of the Time-Weighted CMI Resident Roster Report. The Medicaid ventilator total days and average CMI are displayed on the Summary page of the Roster report.

In this example, an Admission Assessment was followed by a Quarterly Assessment with the following:

Admission Assessment:

- Assessment Reference Date (A2300) 12/28/2018

Quarterly Assessment:

- Assessment Reference Date (A2300) 03/20/2019

Record Type	Target Date	RUG Class	Start Date	Start Date Field	End Date	Days	Case Mix Index	Payment Source
NC/01/99/99	12/28/18	ES3	01/01/19		03/19/19	78	3.00	MCDVent
NQ/02/99/99	03/20/19	ES3	03/20/19	A2300	03/31/19	12	3.00	MCDVent
Total Days						90		

This example represents a resident in an approved facility for 90 days and payment source is designated as MCDVent.



---

## DETERMINATION OF PAYMENT SOURCE

The payment source (Medicaid, MCDVent, Medicare or Other) identified on the Resident Roster is determined from the assessment in the order presented as follows:

- All assessments with a PPS reason for assessment in MDS item A0310B (01-07) or beginning October 1, 2019 A0310B(01) are identified as “Medicare” payment source and those where assessment information indicates that the Medicare Stay is still active. Please see the RAI manual for more information.
- Days counted for a non-PPS Assessment or Tracking Form where MDS item A0700 Medicaid Number is submitted with a valid Maryland recipient number are identified as “Medicaid” payment source, unless the assessment has previously been identified with a Medicare payment source. A valid Maryland Medicaid recipient number is an eleven (11) digit number.
- Medicaid pending, coded with the "+" (plus) symbol in MDS item A0700 Medicaid Number, are identified as “Medicaid” payment source unless the assessment has previously been identified with a Medicare payment source.
- Approved ventilator facilities with assessments reporting a non-PPS Assessment (A0310B=99), a valid or a pending “+” (plus) Medicaid number in A0700, and has ventilator or respirator (MDS item O0100F,2) coded are identified as MCDVent.
- Any assessment not identified as Medicare, Medicaid, or MCDVent are identified as “Other” payment source on the Resident Roster.

---

## REVIEW OF RESIDENT ROSTER

The Preliminary Resident Roster is provided as a tool for use by the facility in determining whether any missing or incorrect assessments are noted and allows the facility a review period to evaluate assessments displayed on the roster. All corrections to the Preliminary Resident Roster must be made through the modification, inactivation and transmission process for MDS Assessments and Tracking Forms in accordance with the RAI manual (Chapter 5) on or before the cutoff date; no manual alterations of the Resident Roster are considered.

In reviewing the Preliminary Resident Roster, the following steps are suggested, but not limited to:

- Review any BC1 RUG classification. Keep in mind that assessments may have already been transmitted after the cut-off date of the Preliminary Resident Roster and will automatically be listed on the Final Resident Roster.
- Review any BC1 RUG classification and, if appropriate, submit any completed missing Assessment or Tracking Form or complete any modification of a previously transmitted assessment, when applicable, to correct the reason causing the BC1 RUG classification assignment.
- Keep in mind, missing or corrected (if applicable) assessments that have been transmitted and accepted after the cut-off date(s) will not be reflected on the Time-Weighted CMI Resident Roster Report (both preliminary and final).
- Determine if each resident is identified only once. If the same resident appears as if they were two separate residents, contact the Maryland MDS/OASIS Automation Help Desk to merge resident assessments.
- Review the listed Assessments and Tracking Forms for each listed resident to determine if each assessment is accounted for on the Resident Roster.
- Determine if all residents in the facility at any time during the quarter are listed on the Resident Roster.
- Review for missing or corrected (if applicable) assessments that may have been transmitted and **not** accepted by the QIES ASAP system. Review the MDS Validation report for errors; make corrections and retransmit, if applicable.
- Determine if each Medicaid assessment is correctly identified as Medicaid for any non-PPS Assessment by reviewing MDS item A0700 Medicaid Number.

- Determine if each Medicaid Vent Assessment is correctly identified as MCDVent for any non-PPS Assessment, by reviewing MDS item A0700 Medicaid Number, and verifying that MDS item O0100F2 is coded.
- Review the RUG-IV classification (LC2 or RAB) attributed to an Entry Tracking Form period followed by a Discharge Assessment or Death in Facility Tracking Form for accuracy of the discharge status (A2100) (when less than 14 days).
- Review the type of Entry Tracking Form reason (A1700=1 [admission] or A1700=2 [reentry]) to ensure that the reason fits the sequence of assessments displayed.
- Review the start date and end date of assessments for accuracy.
- Review dates and/or reasons for assessment for accuracy by following the RAI manual instructions for modifications and inactivations in Chapter 5.

Any corrections including transmissions must be completed by the predetermined cutoff date for the quarter.

---

## **RESIDENT ROSTER CMI CALCULATION**

The day weighted calculations are completed for the facility on the last page of the Resident Roster. The CMI averages are calculated for Medicaid, Medicaid Vent and All residents.

The calculated days from the detail pages of the Resident Roster for each source of payment are summed by RUG-IV classification. For each RUG-IV classification, the assigned CMI is multiplied by the total number of days to arrive at CMI points. The sum of all of the CMI points divided by the sum of all days is the day weighted average for the payment source.

The Final Resident Roster CMI averages are used in the determination of the facility's case mix rate.

# 4 RESOURCES

The following list of resources may be beneficial to aid in the correct completion and submission of the MDS to fulfill federal requirements. However, these resources do change over time; it's recommended that facilities view the websites periodically to determine if any updates to the listed manuals and question and answer documents have been made.

Every effort is made to assure that the information provided in this manual is accurate; however, the MDS is an assessment instrument implemented by the federal government. If later guidance is released by the CMS that contradicts or augments guidance provided in this manual, this more current information from the CMS becomes the acceptable standard.

---

## WEBSITES

- <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/index.html> - This site is maintained by the CMS and provides extensive information about the MDS, data submission, Medicare PPS Patient Driven Payment Model classification, etc.
- <https://qtso.cms.gov/> - This site is maintained by Telligen (formerly Iowa Foundation for Medical Care). This firm provides support for submissions to the QIES ASAP System and maintains a provider helpdesk for users of jRAVEN and is referred to by the CMS as their Quality Improvement and Evaluation System (QIES) Technical Support contractor. Their website contains information on the MDS submission process, manuals, etc.
- <http://www.mslc.com/Maryland/Resources.aspx> - This site is maintained by Myers and Stauffer LC and is the location in which materials applicable to the Maryland Case Mix Reimbursement system are located.

---

## MANUALS

- **MDS 3.0 RAI Manual** - This manual provides information about the completion of the MDS and is available from various publishers and the CMS and QTSO websites. Changes to this manual are released periodically by CMS and may be viewed by monitoring <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/index.html> for the latest information. The applicable portions are incorporated in this document.
- **MDS 3.0 Provider User's Guide** - This manual provides information about the electronic submission of MDS 3.0 from the facility to the QIES ASAP System and is available on the QTSO website at the following link- <https://qtso.cms.gov/providers/nursing-home-mdsswing-bed-providers/reference-manuals>.
- **MDS 3.0 Data Specifications** - These specifications describe item-by-item edits for each element of the MDS 3.0 as well as describing sequencing, timing, date consistency and record types and is available on the CMS website at <https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/NHQIMDS30TechnicalInformation.html>.

---

## HELP DESK

- **Myers and Stauffer Help Desk** – Myers and Stauffer is a contractor to the Department and provide the Resident Rosters as well as technical assistance. The phone number of the Myers and Stauffer Help Desk is 800-763-2278 and is also provided on the Time-Weighted CMI Resident Roster Report.
- **CMSNet** - Providers Phone Number: 888-238-2122  
This relates to problems/assistance relating to providers being able to connect to the private internet (CMSNET). See Overview 2-2 at [https://qtso.cms.gov/system/files/qtso/Users\\_sec2.pdf](https://qtso.cms.gov/system/files/qtso/Users_sec2.pdf)
- **QTSO Help Desk** - Providers Phone Number 800-339-9313. This relates to problems/assistance relating to Casper User IDs or the jRAVEN Application.
- **Maryland MDS/OASIS Automation Help Desk** - This relates to assistance with merging resident records when the same resident appears as if they were two separate residents. The phone number of the help desk is 410-402-8164.

# 5 GLOSSARY

## COMMON TERMS AND ABBREVIATIONS

This manual section provides definitions of terms and abbreviations that a user may hear not only while reviewing the Resident Roster, but also within the larger MDS environment.

Term/Abbreviation	Definition
Admission Entry Date	The date the resident began his/her current stay. It is found at MDS item A1600, Entry date and A1700 = 1 (Admission).
Assessment Reference Date (ARD)	The last day of the MDS observation period. It is found at MDS item A2300.
Assessment Submission and Processing (ASAP) System	The CMS system that receives submissions of MDS 3.0 data files, validates records for accuracy and appropriateness and stores validated records in the CMS database.
Case Mix	The mix of residents being cared for in a nursing facility at any given time.
Case Mix Index (CMI)	A weight or numeric score assigned to each Resource Utilization Group (RUG IV) that reflects the relative resources predicted to provide care to a resident. The higher the case mix weight, the greater the resource requirements for the resident.
Case Mix Reimbursement System	For a nursing facility, a payment system that measures the intensity of care and services required for each resident and translates these measures into the amount of reimbursement given to the facility for care of a resident. Payment is linked to the intensity of resource use.
Centers for Medicare and Medicaid Services, The (CMS)	The federal agency that is located in the U.S. Department of Health and Human Services that administers the Medicare and Medicaid programs.
CMS MDS Welcome Page	The portal accessed by the facility using the MDCN connection process that allows the facility to submit MDS 3.0 data.
CMSNet	The communication system used to electronically submit data to the QIES ASAP System. Each person at the NF who is submitting data must have an individual password.
Discharge Date	The date a resident is discharged from the facility.
Discharge	The act of leaving a facility, regardless of intent to return.
Final Validation Report (FVR)	A report generated by the QIES ASAP System after a file containing MDS Assessments/Tracking Forms is completely processed, detailing the records processed and any errors that were identified.
Inactive/Expired period	For Maryland Medical Assistance purposes only, the period following an expired Assessment beginning with Day 114 until the start of the next Assessment (A2300 or A1600 date) or the end of the Resident Roster quarter. Sometimes referred to as delinquent.

Term/Abbreviation	Definition
Index Maximization	The term used to define the process by which “Each resident shall be included in the RUG-IV category with the highest numeric CMI for which the resident qualifies.”
Initial Feedback Report (IFR)	This report is generated by the QIES ASAP System when a file of MDS data is first electronically submitted and indicates whether the file is accepted or rejected.
Internal Resident ID	See Resident ID.
Item Set Code (ISC)	A code based upon combinations of reasons for assessment (A0310 items) that determines which items are active on a particular type of MDS Assessment or Tracking Form.
Minimum Data Set (MDS)	A core set of screening, clinical, and functional status elements, including common definitions and coding categories, which forms the foundation of a comprehensive Assessment for all residents of nursing homes certified to participate in Medicare or Medicaid.
Modification	A type of assessment correction allowed under the MDS Correction Policy (Chapter 5 of RAI Manual). A modification is requested when an accepted MDS record is in the QIES ASAP System database but the information in the record contains errors. Each modification results in an increase in the Correction Number at MDS item X0800.
OBRA Assessments	A term that may be used when referring to federally required MDS Assessments based on the resident’s condition and clinical requirements (A0310A = 01–06) as required by the RAI process and manual.
Omnibus Budget Reconciliation Act (OBRA ‘87)	Law that enacted reforms in nursing facility care and provides the statutory authority for the MDS. The goal is to ensure that residents of nursing facilities receive quality care that will help them to attain or maintain the highest practicable, physical, mental, and psychosocial well-being.
Prospective Payment System (PPS)	A payment system, developed for Medicare skilled nursing facilities, which pays facilities an all-inclusive rate for all Medicare Part A beneficiary services. Payment is determined by a case mix classification system that categorizes residents by the type and intensity of resources used.
PPS Assessment	A term that may be used when referring to an MDS Assessment completed for Medicare PPS requirements (A0310B = 01).
QIES Technical Support Office (QTSO)	A CMS contractor that provides technical support to the state agencies housing the QIES ASAP System. The QIES Technical Support Office function is provided by the Iowa Foundation for Medical Care.
Quality Improvement and Evaluation System (QIES)	The “umbrella” system that encompasses MDS, OASIS, ASPEN and OSCAR.
RAI Manual	The Long-Term Care Facility Resident Assessment Instrument User's Manual, issued by the CMS covering the Minimum Data Set and Care Area Assessments.
Reentry Date	The date the resident returns and continues his/her current stay. It is found at MDS item A1600, Entry date.
Resident	A person being cared for in a Nursing Facility.

Term/Abbreviation	Definition
Resident ID	An internal resident ID created for each individual nursing facility resident upon the submission of their first record to the QIES ASAP System. The Resident ID (Res_Int_ID) is based on resident identifying information such as name, social security number, gender etc. All subsequent records for the resident are tagged with the same Resident ID.
Resident Assessment	A standardized evaluation of each resident's physical, mental, psychosocial and functional status conducted within 14 days of admission to a nursing facility, promptly after a significant change in a resident's status, quarterly and on an annual basis.
Resident Assessment Instrument (RAI)	The designation for the complete resident assessment process mandated by the CMS, including the MDS, Care Areas Assessments (CAAs) and care planning decisions.
Resource Utilization Group Version IV (RUG-IV)	A category-based resident classification system used to classify nursing facility residents into groups based on their characteristics and clinical needs.
Roster Quarter	Quarter 1 = 01/01/Current Year to 03/31/Current Year Quarter 2 = 04/01/Current Year to 06/30/Current Year Quarter 3 = 07/01/Current Year to 09/30/Current Year Quarter 4 = 10/01/Current Year to 12/31/Current Year
RUG Element	Those items on the MDS that are used in the RUG-IV grouper classification system.
Target Date	Assessment Reference Date (A2300) or Discharge Date (A2000) or Entry/Reentry Date (A1600)