Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual
Version 5.0

Prepared for

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Quality Measure, Assessment Instrument
Development, Maintenance and Quality
Reporting Program Support for the Long-Term
Care Hospital (LTCH), Inpatient Rehabilitation
Facility (IRF), Skilled Nursing Facility (SNF)
QRPs and Nursing Home Compare (NHC)

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SKILLED NURSING FACILITY QUALITY REPORTING PROGRAM MEASURE CALCULATIONS AND REPORTING USER'S MANUAL VERSION 5.0

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Chapter 1
Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual Organization and Definitions

The purpose of this manual is to present the methods used to calculate quality measures that are included in the Centers for Medicare & Medicaid Services (CMS) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP).[1] Quality measures are tools that help measure or quantify healthcare processes, outcomes, patient or resident perceptions, and organizational structure/systems that are associated with the ability to provide high-quality services related to one or more quality goals.[2] This manual provides detailed information for each quality measure, including quality measure definitions, inclusion and exclusion criteria, and measure calculation specifications. An overview of the SNF QRP and additional information pertaining to public reporting is publicly available and can be accessed through the [SNF QRP website](.).[3] The next section outlines the organization of this manual and provides an overview of the information found in each chapter.

Section 1.1 Organization

This manual is organized by eight chapters and two appendices. The remainder of this section provides information on the contents of each chapter and an overview of the appendices. **Chapter 1** presents the purpose of the manual, explaining how the manual is organized and defining key terms that are used throughout subsequent chapters. The chapter also includes a summary of existing quality measures in the SNF QRP, as well as an overview of the quality measures added to or removed from the SNF QRP, and/or finalized for public reporting display updates with the FY 2025 SNF QRP. **Chapters 2** through **5** provide detailed information about the measures and reporting components. **Chapters 2 and 3** identify the Centers for Disease Control and Prevention's (CDC) National Healthcare Safety Network Measures (NHSN) quality measures and the Medicare claims-based measures, respectively. **Chapter 4** presents the data selection logic used to construct records and the selection criteria used to create Medicare Part A SNF stays for the assessment-based quality measures that rely on the Minimum Data Set 3.0 (MDS). **Chapter 5** describes the Internet Quality Improvement and Evaluation System (iQIES) for the MDS-based quality measures, consisting of the iQIES Review and Correct reports and the iQIES Quality Measure (QM) reports. The iQIES Review and Correct Report is a single report that contains facility-level quarterly and cumulative rates and its associated resident-level data. The iQIES QM Report is comprised of two reports, one containing facility-level measure

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[1] This manual is specific to the SNF QRP. The manual used to calculate measures for the Nursing Home Quality Initiative (NHQI) is separate and can be found in the downloads section of the following website: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-instruments/NursingHomeQualityInits/NHQIQualityMeasures

[2] Centers for Medicare & Medicaid Services. (February 2016). Quality Measures. Available at: https://www.cms.gov/medicare/quality-initiatives-patient-assessment-instruments/qualitymeasures?redirect=/qualitymeasures/

[3] The SNF QRP website can be found at the following link: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/Skilled-Nursing-Facility-Quality-Reporting-Program/SNF-Quality-Reporting-Program-Overview

information and a second that includes resident-level data for a selected reporting period. The chapter concludes with the transition from MDS V1.17.2 to MDS V1.18.11. Data collection for MDS V1.18.11 will begin October 1, 2023 and will impact certain assessment-based (MDS) quality measure specifications.

Following the discussion of quality measure specifications for each report, information is presented in table format to illustrate the report calculation month, reporting quarters, and the months of data that are included in each monthly report. **Chapter 6** describes the methods used to calculate the MDS-based measures that *are not* risk-adjusted, and **Chapter 7** describes the methods used to calculate the MDS-based measures that *are* risk-adjusted. **Chapter 8** provides the measure logical specifications for each of the quality measures calculated from the MDS in table format. **Appendix A** provides effective periods for CMS ID updates corresponding to all SNF QRP measures and current and prior versions of this manual. Lastly, **Appendix B** includes instruction on the use of the associated Risk-Adjustment Appendix File, which includes the covariate definitions and intercept and covariate coefficient values that are used to calculate the assessment-based (MDS) risk-adjusted measures. This appendix also provides ICD-10-CM updates to Primary Medical Condition Category and Active Diagnosis in the Last 7 days used in measure calculations. Additionally, this appendix provides instruction on the use of the associated Discharge Function Score Appendix File, which includes covariate definitions and model threshold and covariate coefficient values that are used to calculate statistically imputed values for use in Discharge Function Score measure calculations.

Section 1.2 SNF Stay Definitions

Facility Type: The SNF QRP QMs are calculated using MDS 3.0 records submitted from the following types of facilities:

- Nursing Home (SNF/NF) (A0200 = [1]); and
- Swing Bed providers (A0200 = [2])

The sample of facilities used for the SNF QRP measures does not include facilities that are certified solely as Nursing Facilities (i.e. not Medicare certified). Swing beds are only those located in non-critical access hospitals.

Medicare Part A Admission Record: Defined as a PPS[4] 5-Day assessment (A0310B = [01]). The PPS 5-Day assessment is the first Medicare-required assessment to be completed when a resident is first admitted or re-admitted to a facility for a Medicare Part A SNF stay.

Medicare Part A Discharge Record: Defined as a Part A PPS Discharge Assessment (A0310H = [1]). A Part A PPS Discharge record is required when a resident's Medicare Part A SNF stay ends. A Part A PPS Discharge Assessment (A0310H = [1]) may be combined with an OBRA[5] Discharge Assessment (A0310F = [10, 11]) when the End Date of Most Recent Medicare Stay

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[4] Prospective Payment System (PPS)

[5] Omnibus Budget Reconciliation Act (OBRA)

(A2400C) is on the same day as the Discharge Date (A2000) (i.e., A2400C = A2000) or one day before the Discharge Date (i.e., A2400C = [A2000-1]).

Look-Back Scan: The look-back scan is conducted to review all qualifying Reasons for Assessments (RFAs) within a Medicare Part A SNF stay to determine whether certain events or conditions occurred during that stay. The look-back period consists of the entire Medicare Part A SNF stay specific to a resident. All assessments identified below as qualifying RFAs, with target dates within the Medicare Part A SNF stay (i.e., look back period), are examined since some measures utilize MDS items that record events or conditions that occurred since the prior assessment was performed. Qualifying RFAs for the look-back scan include:

- **Federal OBRA Assessments:** A0310A = [01, 02, 03, 04, 05, 06]; *or*

- **Medicare Part A PPS 5-Day Assessment:** A0310B = [01]; or

- **OBRA Discharge Assessments:** A0310F = [10, 11]; *or*

- **Medicare Part A PPS Discharge Assessment:** A0310H = [1].

Medicare Part A SNF Stay: A Medicare Part A SNF stay includes consecutive time in the facility starting with the Medicare Part A Admission Record (PPS 5-Day assessment (A0310B = [01])) through the Medicare Part A Discharge Record (Part A PPS Discharge Assessment (A0310H = [1])) or Death in Facility Tracking Record (A0310F = [12]) at the end the SNF stay and all intervening assessments. A Medicare Part A SNF stay, thus defined, may include interrupted stays lasting 3 calendar days or less.

- **Interrupted Medicare Part A SNF Stay[6]:** During a Medicare Part A SNF stay the resident had an interruption in their Part A SNF stay and resumed the same Part A SNF stay within three consecutive calendar days.

The methodology for selecting the Medicare Part A SNF stay-level sample is described in **Chapter 4, Section 4.1**. The following two types of stays are defined to help provide instructions on data selection in the measure calculation within the Quality Measure Target Period.

- **Type 1 SNF Stay**: a SNF stay with a matched pair of PPS 5-Day Assessment (A0310B = [01]) and PPS Discharge Assessment (A0310H = [1]) and no Death in Facility Tracking Record (A0310F = [12]) within the SNF stay.

- **Type 2 SNF Stay**: a SNF stay with a PPS 5-Day Assessment (A0310B = [01]) and a matched Death in Facility Tracking Record (A0310F = [12]).

Record Type: A grouping of MDS records with similar content that includes Entry Tracking Records (A0310F = [01]), OBRA assessments (A0310A = [01, 02, 03, 04, 05, 06]), Medicare Part A PPS 5-Day assessment (A0310B = [01]), Medicare PPS Discharge assessment (A0310H = [1]), OBRA Discharge Assessments (A0310F = [10, 11]), and Death-in Facility Tracking

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[6] Please refer to the following link to access the MDS 3.0 RAI manual v1.18.11 for additional information about Interrupted Medicare Part A SNF stays: https://www.cms.gov/medicare/quality-initiatives-patient-assessment-instruments/nursinghomequalityinits/mds30raimanual

Records (A0310F = [12]). The selection criteria/logic for record type is provided in **Chapter 4, Section 4.2**.

Target Date: The event date for an MDS record, which is used to determine the sort order of MDS records for a resident's stay. The target date is different based on the type of assessment and are defined as follows:

- **Entry Tracking Record (A0310F = [01]):** target date is equal to the Entry Date (A1600);

- **OBRA Discharge Assessments (A0310F = [10, 11]) or Death-in-Facility Tracking Record (A0310F = [12]):** target date is equal to the Discharge Date (A2000);

- **For all other records (A0310F = [99]):** target date is equal to the Assessment Reference Date (ARD, A2300). Records can consist of Federal OBRA Assessments (A0310A), Medicare Part A PPS Assessments (A0310B), or SNF Part A PPS Discharge Assessments (A0310H = [1]).

Target Period: The span of time that defines the Quality Measure Reporting Period (e.g., a 12-month calendar or fiscal year) for the SNF QRP quality measures. The target period for the SNF QRP quality measures is defined in **Chapter 4, Section 4.1.1**.

Section 1.3 Measure-Specific Definitions

The definitions below refer to the following measures:

- Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (CMS ID: S001.03)

- Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05)

- Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID: S025.05)

- Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04)

- Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04)

- Discharge Function Score (CMS ID: S042.01)

Incomplete Stay: Incomplete Medicare Part A SNF stays are defined based on the measure. Incomplete Medicare Part A SNF stays occur if the resident was discharged to an acute care setting (e.g., acute hospital, psychiatric hospital, or long-term care hospital), had an unplanned discharge, was discharged against medical advice, had a stay that was less than three days, or died while in the facility.

Complete Stay: Complete stays are identified as Medicare Part A SNF stays that are not incomplete stays. All Medicare Part A SNF stays not meeting the criteria for incomplete stays will be considered complete stays.

Please refer to **Chapter 8** for the measure specifications specific to each measure.

Section 1.4 QRP Measures

Table 1-1 provides a list of the measures included in the SNF QRP and the corresponding CMS ID, reference name (short name), and measure type for each measure.

Table 1-1
SNF Quality Measures: CBE Number, CMS ID, Measure Type, and Measure Reference Name Crosswalk

Quality Measure	CMIT Measure ID #[7]	CMS ID[8]	Measure Type	Measure Reference Name
National Healthcare Safety Network (NHSN) Measures				
COVID-19 Vaccination Coverage among Healthcare Personnel[9]	00180 (not endorsed)	S040.02	Process	HCP COVID-19 Vaccine
Influenza Vaccination Coverage among Healthcare Personnel (HCP)	00390 (CBE-endorsed)	S041.01	Process	HCP Influenza Vaccine
Medicare Claims-based Measures				
Potentially Preventable 30-Day Post-Discharge Readmission Measure for Skilled Nursing Facility (SNF) Quality Reporting Program (QRP)	00575 (not endorsed)	S004.01	Outcome	PPR
Discharge to Community (DTC)—Post Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP)	00210 (CBE-endorsed)	S005.02	Outcome	DTC

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[7] Refer to the Centers for Medicare & Medicaid Services Measures Inventory Tool (https://cmit.cms.gov/cmit/#/) for the CMIT Measure ID, Consensus Based Entity (CBE)-endorsement status, as well as other detailed measure information. CBE-endorsement status is determined by the CMS CBE, which endorses quality measures through a transparent, consensus-based process that incorporates feedback from diverse groups of stakeholders to foster health care quality improvement. The CMS CBE endorses measures only if they pass a set of measure evaluation criteria. For more information, refer to the document titled CMS CBE Endorsement and Maintenance (https://mmshub.cms.gov/sites/default/files/Blueprint-CMS-CBE-Endorsement-Maintenance.pdf).

[8] Reflects changes in CMS measure identifiers based on updated measure specifications.

[9] This measure, "Quarterly Reporting of COVID-19 Vaccination Coverage Among Healthcare Personnel," received CBE-endorsed on July 26, 2022, based on its specifications depicted under SNF QRP (Federal Register 86(4 August 2021): 42480-42489). This endorsed version of the measure does not capture information about whether HCP are up to date with their COVID-19 vaccinations, including booster doses. This measure was replaced by the COVID-19 Vaccination Coverage Among Healthcare Personnel effective October 1, 2023 SNF QRP (Federal Register 88(7 August 2023): 53223-53234). The CDC will pursue CBE endorsement for this modified version of the measure.

Quality Measure	CMIT Measure ID #[7]	CMS ID[8]	Measure Type	Measure Reference Name
Medicare Claims-based Measures				
Medicare Spending Per Beneficiary (MSPB)—Post Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP)	00434 (not endorsed)	S006.01	Cost/ Resource	MSPB
SNF Healthcare-Associated Infections (HAI) Requiring Hospitalization	00680 (not endorsed)	S039.01	Outcome	HAI
Assessment-based Measure				
Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)[10]	00520 (CBE-endorsed)	S013.02	Outcome	Application of Falls
Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function[11]	00513 (not endorsed)	S001.03	Process	Application of Functional Assessment/Care Plan
Drug Regimen Review Conducted With Follow-Up for Identified Issues–Post-Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP)	00225 (not endorsed)	S007.02	Process	DRR
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury	00121 (not endorsed)	S038.02	Outcome	Pressure Ulcer/Injury
Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients[12]	00404 (not endorsed)	S024.05	Outcome	Discharge Self-Care Score

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[10] This measure is CBE-endorsed for long-stay residents in nursing homes (https://www.qualityforum.org/QPS/0674) and an application of this quality measure is finalized for reporting by SNFs under the SNF QRP (Federal Register 80(4 August 2015): 46440-46444).

[11] This measure is an application of measure L009.03 and is finalized for reporting by SNFs under the SNF QRP (Federal Register 80(4 August 2015): 46389-46477). This measure is finalized for removal beginning with the FY 2025 SNF QRP.

[12] This measure is CBE-endorsed for use in the IRF setting (https://www.qualityforum.org/QPS/2635) and finalized for reporting by SNFs under the SNF QRP (Federal Register 82 (4 August 2017): 36530-36636).

Table 1-1 (continued)
SNF Quality Measures: CBE Number, CMS ID, Measure Type, and Measure Reference Name Crosswalk

Quality Measure	CMIT Measure ID #[7]	CMS ID[8]	Measure Type	Measure Reference Name
Assessment-based Measure				
Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients[13]	00403 (not endorsed)	S025.05	Outcome	Discharge Mobility Score
Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients[14]	00402 (not endorsed)	S022.04	Outcome	Change in Self-Care Score
Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients[15]	00401 (not endorsed)	S023.04	Outcome	Change in Mobility Score
Transfer of Health (TOH) Information to the Provider – Post Acute Care (PAC)	00728 (not endorsed)	S043.01	Process	TOH-Provider
Transfer of Health (TOH) Information to the Patient – Post Acute Care (PAC)	00727 (not endorsed)	S044.01	Process	TOH-Patient
Discharge Function Score	01698 (not endorsed)	S042.01	Outcome	DC Score

Table 1-2 and *Table 1-3* provide an overview of the quality measures added and removed with the FY 2025 SNF QRP, respectively. *Table 1-2* shows when new measures added to the SNF QRP will be included in reports and released on Care Compare and the Provider Data Catalog. *Table 1-3* shows when measures retired from the SNF QRP will be removed from reports and removed on Care Compare and the Provider Data Catalog.

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[13] This measure is CBE-endorsed for use in the IRF setting (https://www.qualityforum.org/QPS/2636) and finalized for reporting by SNFs under the SNF QRP (Federal Register 82 (4 August 2017): 36530-36636).

[14] This measure is CBE-endorsed for use in the IRF setting (https://www.qualityforum.org/QPS/2633) and an application of this quality measure is finalized for reporting by SNFs under the SNF QRP (Federal Register 82 (4 August 2017): 36530-36636). This measure is finalized for removal beginning with the FY 2025 SNF QRP.

[15] This measure is CBE-endorsed for use in the IRF setting (https://www.qualityforum.org/QPS/2634) and an application of this quality measure is finalized for reporting by SNFs under the SNF QRP (Federal Register 82 (4 August 2017): 36530-36636). This measure is finalized for removal beginning with the FY 2025 SNF QRP.

Table 1-2
Quality Measures Added to the SNF QRP

Quality Measure	Planned Initial Release Date[16]		
	Review and Correct Reports	Quality Measure Reports	Care Compare and Provider Data Catalog
Influenza Vaccination Coverage among Healthcare Personnel (HCP)	n/a[17]	October 2023	October 2023
Discharge Function Score	January 2024	January 2024	October 2024
Transfer of Health (TOH) Information to the Provider – Post Acute Care (PAC)	January 2024	October 2024	October 2025
Transfer of Health (TOH) Information to the Patient – Post Acute Care (PAC)	January 2024	October 2024	October 2025

Table 1-3
Quality Measures Removed/Retired from the SNF QRP

Quality Measure	Planned Removal Date[18]		
	Review and Correct Reports	Quality Measure Reports	Care Compare and Provider Data Catalog
Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function	January 2024	January 2024	October 2024
Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients	January 2024	January 2024	October 2024
Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients	January 2024	January 2024	October 2024

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[16] Planned initial release dates are based on the FY 2023 and FY2024 Medicare Skilled Nursing Facility (SNF) Prospective Payment System (PPS) final rules.
[17] Data for this measure is not displayed on the Review & Correct and Patient-Level Quality Measure reports, as this measure is calculated using CDC/NHSN data.
[18] Planned removal dates are based on the FY2024 SNF PPS final rule.

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Chapter 2
National Healthcare Safety Network Measures

An overview of the NHSN measures and annual reports containing quality measure information can be accessed on the CDC NHSN website. Additionally, quality measure information and quality reporting program details related to the NHSN can be found in the FY 2022 SNF PPS final rule. Below is the CDC NHSN quality measure included in the SNF QRP as of October 1, 2023 and a hyperlink that provides detailed information about the measure on the CDC website, including measure descriptions and definitions, data collection methods, specifications (e.g. numerator, denominator, Standardized Infection Ratio (SIR) calculations), and reporting requirements:

- **COVID-19 Vaccination Coverage among Healthcare Personnel (CMS ID: S040.02)**
  - This measure identifies the percentage of healthcare personnel (HCP) eligible to work in the SNF setting for at least one day during the reporting period, excluding HCP with contraindications to the COVID-19 vaccine, who are considered up to date, regardless of clinical responsibility or patient contact.
    - Note: This measure has been updated to replace the term 'complete vaccination course' with 'up to date' in the HCP vaccination definition and to update the numerator to specify the time frames within which an HCP is considered up to date with vaccinations for recommended COVID-19 vaccines, including booster doses.
    - CDC NHSN: HCP COVID-19 Vaccine[19]

- **Influenza Vaccination Coverage among Healthcare Personnel (HCP) (CMS ID: S041.01)**
  - This measure identifies the percentage of healthcare personnel who receive the influenza vaccination among the total number of healthcare personnel (HCP) in the facility for at least one working day between October 1 and March 31 of the following year, regardless of clinical responsibility or patient contact.
    - CDC NHSN: HCP Influenza Vaccine

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[19] The updated measure specifications were effective January 2023.

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Chapter 3
Medicare Claims-Based Measures

CMS utilizes a range of data sources to calculate quality measures. The quality measures listed below were developed using Medicare claims data submitted for Medicare Fee-For-Service residents. Each measure is calculated using unique specifications and methodologies specific to the quality measure. Information regarding measure specifications and reporting details is publicly available and can be accessed on the [SNF Quality Reporting Measures Information website.](#)[20] Below are the Medicare claims-based measures included in the SNF QRP and hyperlinks that provide information about each measure, including measure descriptions and definitions, specifications (e.g., numerator, denominator, exclusions, calculations), care setting, and risk-adjustment. Note: as of the manual publication date, an update to the claims-based measures specifications are in progress. An updated claims-based measures specifications document will be posted on the [SNF Quality Reporting Measures Information website.](#)

- **Potentially Preventable 30-Day Post-Discharge Readmission Measure for Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S004.01)**

    o This measure estimates the risk-standardized rate of unplanned, potentially preventable readmissions for residents (Medicare fee-for-service [FFS] beneficiaries) who receive services in skilled nursing facilities.

    ▪ [Medicare Claims-Based: Potentially Preventable Readmissions](#)

- **Discharge to Community (DTC)—Post Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S005.02)**

    o This measure reports a SNF's risk-standardized rate of Medicare FFS residents who are discharged to the community following a SNF stay, and do not have an unplanned readmission to an acute care hospital or LTCH in the 31 days following discharge to community, and who remain alive during the 31 days following discharge to community. Community, for this measure, is defined as home or self-care, with or without home health services.

    ▪ Note: This measure has been updated to exclude residents who had a long-term nursing facility (NF) stay in the 180 days preceding their hospitalization and SNF stay, with no intervening community discharge between the long-term NF stay and qualifying hospitalization.

    ▪ [Medicare Claims-Based: Discharge to Community-Post Acute Care](#)

- **Medicare Spending Per Beneficiary (MSPB)—Post Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S006.01)**

    o This measure evaluates SNF providers' resource use relative to the use of the national median SNF provider. Specifically, the measure assesses the cost to

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[20] The SNF Quality Reporting Program Measures and Technical Information website can be found at the following link:
[https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/NursingHomeQualityInits/Skilled-Nursing-Facility-Quality-Reporting-Program/SNF-Quality-Reporting-Program-Measures-and-Technical-Information](#)

Medicare for services performed by the SNF provider during an MSPB-PAC SNF episode. The measure is calculated as the ratio of the price-standardized, risk-adjusted MSPB-PAC amount for each SNF divided by the episode-weighted median MSPB-PAC amount across all SNF providers.

- Medicare Claims-Based: Medicare Spending Per Beneficiary

- **SNF Healthcare-Associated Infections (HAI) Requiring Hospitalization (CMS ID: S039.01)**
    - This measure estimates the risk-standardized rate of HAIs that are acquired during SNF care and result in hospitalizations, as identified using the principal diagnosis on the Medicare inpatient (IP) claims of SNF residents. The hospitalization must occur during the period beginning on day four after SNF admission and within three days after SNF discharge. Since HAIs are not considered never-events, the measure's objective is to identify SNFs that have higher HAI rates than their peers.

        - Medicare Claims-Based: SNF Healthcare-Associated Infections

Chapter 4
Record Selection for Assessment-Based (MDS) Quality Measures

Section 4.1 Selection Logic for Key Data Elements Used to Construct Records

This section describes the process for using items from the MDS 3.0 to identify and categorize Medicare Part A SNF stays.[21] This section contains the following parts:

- Define the Quality Measure Target Period that will be used for the quality measure calculations for the SNF QRP.

- Create a unique identifier for each resident in the data, define the record types of the associated assessments, and sort the assessments using these variables.

- Use date items from the MDS assessment data to determine the SNF Stay Start Date and SNF Stay End Date for each SNF stay. This is an iterative process that will be performed until the SNF Stay Start Dates and End Dates for all SNF stays during the Quality Measure Target Period have been identified.

- Use these SNF Stay Start Dates and End Dates to determine which assessments are associated with each stay.

- Categorize each SNF stay as one of two mutually exclusive SNF stay types, defined in **Chapter 1, Section 1.2**. The SNF stay types will be used to determine if a stay is included in the calculations for each of the quality measures in the SNF QRP. Note, the classification of SNF stay types is unchanged with interrupted stays lasting 3 calendar days or less.

Section 4.1.1 Define the Quality Measure Target Period

Define the Quality Measure Target Period that will be used for the quality measure calculations for the SNF QRP.

1. Define the Quality Measure Target Period.

   Note: The Quality Measure Target Period for all MDS-based quality measures in the SNF QRP is a 12-month calendar or fiscal year (i.e., four quarters).

   Example: The 12-month Quality Measure Target Period for CY2019 is January 1, 2019 – December 31, 2019.

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[21] Please note that critical access hospitals with swing beds are exempt from the SNF PPS and are not required to submit quality data under the SNF QRP by means of the MDS per the requirements set forth by the IMPACT Act.

2. Include MDS assessments in the Quality Measure Target Period if their Target Dates fall on or after the beginning of the Target Period and on or before the end of the Target Period.

Note: If there is a PPS Discharge Assessment (A0310H = [1]) that is combined with an OBRA Discharge Assessment and the End date of most recent Medicare stay (A2400C) on this PPS Discharge Assessment (A0310H = [1]) is the last day of the Target Period, the Target Date of this assessment will be on or one day after the end of the Target Period. This PPS Discharge Assessment (A0310H = [1]) should be included in the set of assessments for this iteration.

Example: If the Quality Measure Target Period is January 1, 2019 – December 31, 2019, all MDS assessments should be included with a Target Date on or after January 1, 2019 and on or before December 31, 2019, or January 1, 2020 for PPS Discharge Assessments combined with OBRA Discharge Assessments.

Section 4.1.2 Create Resident Identifiers, Define Record Types, and Sort Associated Assessments

Create a unique identifier for each resident in the data, define the record types of the associated assessments, and sort the data using these variables.

1. Create a variable that uniquely identifies residents, defined as "'*State ID'_'Facility ID'_'Resident ID'*" using the following items from the MDS:

   a. State ID: the 2-digit state abbreviation code

   b. Facility ID: the facility identification number for SNFs

   c. Resident Internal ID: the resident identification number assigned by the iQIES system

2. Define the record types of the associated assessments as follows:

   a. If A0310B = 01 (PPS 5-Day Assessment), then record_type = [2]

   b. Else If A0310H = 1 (PPS Discharge Assessment), then record_type = [3]

   c. Else If A0310F =12 (Death in Facility Tracking Record), then record_type = [4]

   d. Else record_type = [1]

3. Sort assessments in reverse chronological order using the identifier created in **Section 4.1.2 Step 1**, the record type defined in **Section 4.1.2 Step 2**, and three additional MDS items in the following order:

   a. *Unique resident identifier*.

   b. *Start date of most recent Medicare stay (A2400B)(descending)*.

   c. *MDS Target date (descending)*. For a discharge assessment (A0310F = [10, 11]) or a Death in Facility Tracking Record (A0310F = [12]), the Target Date is the Discharge Date (A2000). For an entry or re-entry record (A0310F = [01]), the

Target Date is the Entry Date (A1600). For any other assessment type (A0310F = [99]), the Target Date is the Assessment Reference Date (ARD, A2300).

    d. *Record type (descending).*

    e. *Assessment Internal ID (descending).* The assessment internal ID is the internal identification number assigned to each assessment record in the MDS.[22]

Section 4.1.3 Identify SNF Stays

Definitions of SNF Stay Types. As defined in **Chapter 1**, **Section 1.2**, there are two different mutually exclusive stay types. The stay type will be used to determine if the stay is included in the calculations for quality measures in the SNF QRP (**Chapters 6** through **8**). Note, the classification of SNF stay types is unchanged with interrupted stays lasting 3 calendar days or less.

1. **Type 1 SNF Stay**: a SNF stay with a matched pair of PPS 5-Day Assessment (A0310B = [01]) and PPS Discharge Assessment (A0310H = [1]) and no Death in Facility Tracking Record (A0310F = [12]) within the SNF Stay Time Window (defined in **Step 2.1** below). Type 1 SNF stays may include one or more interruptions.

2. **Type 2 SNF Stay**: a SNF stay with a PPS 5-Day Assessment (A0310B = [01]) and a matched Death in Facility Tracking Record (A0310F = [12]). Type 2 SNF stays may include one or more interruptions. Death in Facility Tracking Records (A0310F = [12]) with A2400A = [0] (and, therefore, A2400B = [^] and A2400C = [^]), should not be used to mark the end of a Type 2 SNF stay.

Identify SNF Stays. Use date items from the MDS assessment data to determine the SNF Stay Start Date and SNF Stay End Date for each SNF stay. This is an iterative process that will be performed until the SNF Stay Start Dates and End Dates for all SNF stays during the Quality Measure Target Period have been identified.

1. Use the Quality Measure Target Period defined above to determine the search window start date and search window end date in the first iteration. The search window in the first iteration will be the same for all resident IDs in the data and is equal to the Quality Measure Target Period. For the first iteration, use the first day in the Quality Measure Target Period as the search window start date, and use the last day of the Quality Measure Target Period as the search window end date. Instructions for defining the search window in subsequent iterations are provided below in **Section 4.1.3 Step 3**.

   Example: If the Quality Measure Target Period is January 1, 2019 – December 31, 2019, the search window for the first iteration is January 1, 2019 through December 31, 2019, or January 1, 2020 for PPS Discharge Assessments combined with OBRA Discharge Assessments.

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[22] Assessments that occur later in the sequence should be submitted and processed later than other records. The record processing timestamp would be a slightly better field to use for this purpose; however, it is available only to users who have direct access to the Minimum Data Set 3.0 (MDS 3.0) Assessment Submission and Processing (ASAP) database. The assessment internal ID was, therefore, adopted as a reasonable substitute for the timestamp so that all users would have access to the same sorting fields.

2. Within the search window, look for the PPS Discharge Assessment[23] (A0310H = [1]) or PPS 5-Day Assessment (A0310B = [01]) with the most recent Target Date.[24]

Note: The following items from the MDS 3.0 will be used to define the SNF Stay Start Date and SNF Stay End Date for each SNF stay in **Steps 2.1** and **2.2** below:

- Start date of most recent Medicare stay (A2400B)

- End date of most recent Medicare stay (A2400C)

- Discharge Date (A2000)

Each of these items is coded as an 8-digit date (i.e., MM-DD-YYYY). To be considered "complete," all 8 digits must be filled with a numeric value.

2.1. If the most recent of the two record types, with the higher sorting order, is a PPS Discharge Assessment (A0310H = [1]):

- Use the Start date of most recent Medicare stay (A2400B) on this assessment as the SNF Stay Start Date for this SNF stay.

- Use the End date of most recent Medicare stay (A2400C) on this assessment as the SNF Stay End Date for this SNF stay.

- The SNF Stay Time Window is defined as the date in A2400B to the date in A2400C on the identified PPS Discharge Assessment.

- Sort all qualifying RFAs with the same unique resident identifier if the Target Dates of the assessments occur within the SNF Stay Time Window.

- Within the SNF Stay Time Window, look for a matched PPS 5-Day Assessment (A0310B = [01]). To be matched with the identified PPS Discharge Assessment (A0310H = [1]), the following criteria must be met:
  - o Unique resident identifier is the same
  - o Assessment type is PPS 5-Day Assessment (A0310B = [01])
  - o The Target Date is within the SNF Stay Time Window
  - o Start date of most recent Medicare stay (A2400B) is the same on the PPS 5-Day Assessment (A0310B = [01]) and the PPS Discharge Assessment (A0310H = [1]).

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[23] The PPS Discharge Assessment can occur on its own or in combination with another type of assessment. For the purpose of stay file construction, any assessment record with A0310H = [1] is treated as a PPS Discharge Assessment, regardless of what other assessment types may be present on that assessment record.

[24] For a PPS Discharge Assessment (A0310H = [1]), the Target Date is equal to the Discharge Date (A2000) when the PPS Discharge Assessment is combined with an OBRA Discharge assessment (A0310F = [10, 11]). The Target Date of a standalone PPS Discharge assessment is the Assessment Reference Date (ARD, A2300). For a PPS 5-Day Assessment (A0310B = [01]), the Target Date is equal to the Assessment Reference Date (ARD, A2300).

Note: Because the Medicare Part A benefit resumes after an interruption, this criterion applies to qualifying RFAs within the SNF Stay Time Window with and without interruptions (A0310G1 = [0, 1]).

2.1.1. If there is a matched PPS 5-Day Assessment (A0310B = [01]) within the SNF Stay Time Window, this stay is identified as a **Type 1 SNF Stay**. The admission assessment for this stay is the matched PPS 5-Day Assessment (A0310B = [01]) and the discharge assessment is the matched PPS Discharge Assessment (A0310H = [1]):

- SNF Stay Start Date = A2400B on the PPS Discharge Assessment (A0310H = [1])

- SNF Stay End Date = A2400C on the PPS Discharge Assessment (A0310H = [1])

Note: Because the Medicare Part A benefit resumes after an interruption, the SNF Stay Start Date is equal to A2400B on the PPS Discharge Assessment (A0310H = [1]) and the SNF Stay End Date is equal to A2400C on the PPS Discharge Assessment (A0310H = [1]) for stays with an interruption (A0310G1 = [1]) and stays without an interruption (A0310G1 = [0]).

2.1.2. If this **Type 1 SNF Stay** has a Death in Facility Tracking Record (A0310F = [12]) within the SNF Stay Time Window that indicates the resident had a Medicare-covered stay since the most recent entry (A2400A = [1]), this stay should be reclassified as a **Type 2 SNF Stay**:

- SNF Stay Start Date = A2400B on the PPS 5-Day Assessment (A0310B = [01])

- SNF Stay End Date = A2000 on the Death in Facility Tracking Record (A0310F = [12])

2.1.3. If there is no matched PPS 5-Day Assessment (A0310B = [01]) within the SNF Stay Time Window, then it is not currently included in any quality measures in the SNF QRP.

2.2. If the most recent of the two record types, with the higher sorting order, is a PPS 5-Day Assessment (A0310B = [01]):

- Use the Start date of most recent Medicare stay (A2400B) on this assessment as the SNF Stay Start Date.

- Look for a more recent Death in Facility Tracking Record (A0310F = [12] in the search window, with a higher sorting order than the PPS 5-Day Assessment (A0310B = [01]), that meets the following criteria:

  o *Unique resident identifier* is the same identifier as on the identified PPS 5-Day Assessment,

  o The resident had a Medicare-covered stay since the most recent entry (A2400A = [1]), and

- o The Start date of most recent Medicare stay (A2400B) is the same as on this PPS 5-Day Assessment.

2.2.1. If a more recent Death in Facility Tracking Record (A0310F = [12]) meeting the criteria is identified, then compare the End date of most recent Medicare stay (A2400C) and the Discharge Date (A2000) on this Death in Facility Tracking Record (A0310F = [12]).

2.2.1.1. If the End date of most recent Medicare stay (A2400C) is before the Discharge Date (A2000), the stay is not currently included in any quality measures in the SNF QRP.

2.2.1.2. If the End date of most recent Medicare stay (A2400C) is on or after the Discharge Date (A2000) or is missing, the stay is identified as a **Type 2 SNF Stay**.

- SNF Stay Start Date = A2400B on the PPS 5-Day Assessment (A0310B = [01])

- SNF Stay End Date = A2000 on the Death in Facility Tracking Record (A0310F = [12]).

Note: Because the Medicare Part A benefit resumes after an interruption, the SNF Stay Start Date is equal to A2400B on the PPS 5-Day Assessment (A0310B = [01]) and the SNF Stay End Date is equal to A2000 on the Death and Facility Tracking Record (A0310F = [12]) for stays with an interruption (A0310G1 = [1]) and stays without an interruption (A0310G1 = [0]).

2.2.2. If a more recent Death in Facility Tracking Record (A0310F = [12]) meeting the criteria is **not** found, then the stay is not currently included in any quality measures in the SNF QRP.

Note: Because the Medicare Part A benefit and assessment schedule resume after an interruption (A0310G1= [1]), all qualifying RFAs within the SNF Stay Time Window should have the same value for A2400B, used to create the SNF Stay Start Date, and A2400C, used to create the SNF Stay End Date, when these items are active and completed on the qualifying RFA.

2.3. If neither a PPS Discharge Assessment (A0310H = [1]) nor a PPS 5-Day Assessment (A0310B = [01]) is found within the search window, there is no SNF stay in this iteration.

Note: If a stay is identified in this iteration, proceed to **Step 3** to start the next iteration of search. Otherwise, end the search process.

3. Determine the search window start date and search window end date for the next iteration. The search window start date is always the same as the Quality Measure Target Period start date. Use the SNF Stay Start Date in the current iteration minus one day (i.e., A2400B minus 1) as the search window end date in the next iteration.

Note: The search window in the first iteration is always equal to the Quality Measure Target Period and is the same for all resident IDs in the data. The search window end date in the next iteration is determined from the SNF Stay Start Date in the current iteration; therefore, in each subsequent iteration, there will be a different search window end date for each resident ID.

Example: If the Target Period is January 1, 2019 – December 31, 2019 and, for the first identified SNF Stay, the SNF Stay Start Date is July 1, 2019, then the search window for the search iteration is January 1, 2019 through June 30, 2019 (i.e., July 1, 2019 minus 1 day).

4. Return to **Step 2**. Repeat **Steps 2-3** until no additional stay is found from **Step 2** or until the last search window starts and ends on the first day of the Target Period.

Section 4.2 Selection Criteria to Create Medicare Part A SNF Stay-Level Records

This section presents record selection criteria for Medicare Part A SNF stays for quality measure calculations. The measures identified below operate on a 12-month (four quarters) **Quality Measure Target Period.**

Measures included in this section:

- Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (CMS ID: S013.02)

- Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (CMS ID: S001.03)

- Drug Regimen Review Conducted With Follow-Up for Identified Issues–Post-Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S007.02)

- Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02)

- Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05)

- Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID: S025.05)

- Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04)

- Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04)

- Discharge Function Score (CMS ID: S042.01)

The eligible Medicare Part A SNF stay-level records for these quality measures are selected as follows:

1. Select all Medicare Part A SNF stays that end within the Quality Measure Target Period, based on the target date (A2300) of the Medicare Part A Discharge Record (A0310H = [1]) or the target date (A2000) of the Death in Facility Tracking Record (A0310F = [12]).

   If there is a PPS Discharge Assessment (A0310H = [1]) that is combined with an OBRA Discharge Assessment and the End date of most recent Medicare stay (A2400C) on this PPS Discharge Assessment (A0310H = [1]) is the last day of this search window, the Target Date of this assessment will be on or one day after the search window end date.

2. For each resident within each SNF: follow steps described in **Section 4.1** to select records and identify Medicare Part A SNF stays.

3. Apply the respective quality measure specifications in **Chapter 8** to the eligible resident Medicare Part A SNF stay-level records from the target period.

   a. Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (CMS ID: S013.02), *Table 8-1*

   b. Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan that Addressed Function (CMS ID: S001.03), *Table 8-2*

   c. Drug Regimen Review Conducted With Follow-Up for Identified Issues–Post-Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S007.02), *Table 8-3*

   d. Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02), *Table 8-4*

   e. Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05), *Table 8-5*

   f. Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID: S025.05), *Table 8-6*

   g. Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04), *Table 8-7*

   h. Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04), *Table 8-8*

   i. Transfer of Health (TOH) Information to the Provider – PAC (CMS ID: S043.01), *Table 8-9*

   j. Transfer of Health (TOH) Information to the Patient – PAC (CMS ID: S044.01), *Table 8-10*

   k. Discharge Function Score (CMS ID: S042.01), *Table 8-11*

4. Refer to the respective tables in **Chapter 5** for data included in the iQIES Review and Correct reports and the iQIES QM reports.

   a. Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (CMS ID: S013.02)

<ol type="i">
iQIES Review & Correct reports are provided in <u>*Table 5-3*</u> for the quarterly rates and <u>*Table 5-4*</u> for the cumulative rates
iQIES QM reports <u>*Table 5-5*</u>

<ol type="a" start="2">
<li value="2">Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan that Addresses Function ([25]) (CMS ID: S001.03)
<ol type="i">
iQIES Review & Correct reports are provided in <u>*Table 5-3*</u> for the quarterly rates and <u>*Table 5-4*</u> for the cumulative rates
iQIES QM reports <u>*Table 5-5*</u>

Drug Regimen Review Conducted With Follow-Up for Identified Issues–Post-Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S007.02)
<ol type="i">
iQIES Review & Correct reports are provided in <u>*Table 5-3*</u> for the quarterly rates and <u>*Table 5-4*</u> for the cumulative rates
iQIES QM reports <u>*Table 5-5*</u>

Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02)
<ol type="i">
iQIES Review & Correct reports are provided in <u>*Table 5-3*</u> for the quarterly rates and <u>*Table 5-4*</u> for the cumulative rates
iQIES QM reports <u>*Table 5-5*</u>

Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05)
<ol type="i">
iQIES Review & Correct reports are provided in <u>*Table 5-3*</u> for the quarterly rates and <u>*Table 5-4*</u> for the cumulative rates
iQIES QM reports <u>*Table 5-5*</u>

Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID: S025.05)
<ol type="i">
iQIES Review & Correct reports are provided in <u>*Table 5-3*</u> for the quarterly rates and <u>*Table 5-4*</u> for the cumulative rates
iQIES QM reports <u>*Table 5-5*</u>

Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04)
<ol type="i">
iQIES Review & Correct reports are provided in <u>*Table 5-3*</u> for the quarterly rates and <u>*Table 5-4*</u> for the cumulative rates
iQIES QM reports <u>*Table 5-5*</u>

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[25] This measure (S001.03) is an application of measure L009.03 and is not CBE endorsed.

    h.   Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04)

        i.   iQIES Review & Correct reports are provided in **_Table 5-3_** for the quarterly rates and **_Table 5-4_** for the cumulative rates

        ii.   iQIES QM reports **_Table 5-5_**

    i.   Discharge Function Score (CMS ID S042.01)

        i.   iQIES Review & Correct reports are provided in **_Table 5-3_** for the quarterly rates and **_Table 5-4_** for the cumulative rates

        ii.   iQIES QM reports **_Table 5-5_**

5. Round off the percent value to the nearest first decimal. If the digit in the second decimal place is 5 or greater, add 1 to the first decimal place, otherwise leave the first decimal place unchanged. Drop all the digits following the first decimal place.

Chapter 5
Internet Quality Improvement and Evaluation System (iQIES) Data Selection for Assessment-Based (MDS) Quality Measures

The purpose of this chapter is to present the data selection criteria for the **iQIES Review and Correct Reports** and the **iQIES Quality Measure (QM) Reports** for quality measures that are included in the SNF QRP and are specific to those quality measures calculated using the MDS. Information about the iQIES reports can be found on the CMS iQIES Reports website.

- **The iQIES Review and Correct Reports** contain facility-level and resident-level measure information and are updated on a quarterly basis with data refreshed weekly as data become available.

    o These reports allow providers to obtain facility-level performance data and its associated resident-level data for the past 12 months (four full quarters) **and are restricted to only the assessment-based measures**. The intent of this report is for providers to have access to reports prior to the quarterly data submission deadline to ensure accuracy of their data. This also allows providers to track cumulative quarterly data that includes data from quarters after the submission deadline ("frozen" data).

- **The iQIES QM Reports** are refreshed monthly and separated into two reports: one containing measure information at the facility-level and another at the resident-level, for a single reporting period. The intent of these reports is to enable tracking of quality measure data regardless of quarterly submission deadline ("freeze") dates.

    o The assessment-based (MDS) measures are updated monthly, at the facility- and resident-level, as data become available. The performance data contain the current quarter may be partial and the past three quarters.

    o The claims-based measures are updated annually and data are provided at the facility-level only.

    o The HCP COVID-19 Vaccine measure is updated quarterly and the HCP Influenza Vaccine measure is updated annually. The data is provided at the facility level only for these measures.

The iQIES Review and Correct Reports and the iQIES QM Reports can help identify data errors that affect performance scores. They also allow the providers to utilize the data for quality improvement purposes.

Section 5.1 of this chapter contains data selection for the assessment-based (MDS) quality measures for the iQIES Review and Correct Reports.

Section 5.2 of this chapter presents data selection information that can be applied to both the iQIES Resident-level QM Reports and the iQIES Facility-level QM Reports, since the criteria and reporting periods for the iQIES QM Reports are consistent across the resident- and facility-

level reports.

Section 5.3 of this chapter addresses the transition from MDS 3.0 V1.17.2 to the MDS 3.0 V1.18.11. Data collection for the MDS 3.0 V1.18.11 begins October 1, 2023 and will impact certain quality measure specifications.

Section 5.1 iQIES Review and Correct Reports

Below are the specifications for the iQIES Review and Correct Reports for quality measures presented in **Chapter 4, Section 4.2**:

1. Quarterly reports contain quarterly rates and a cumulative rate.

    a. The quarterly quality measure data will be displayed using up to one quarter of data.

    b. The cumulative quality measure data will be displayed using all data in the target period.

        i. **For all measures, excluding the Change in Self-Care and Change in Mobility measures:** the cumulative rate is derived by including all Medicare Part A SNF stays in the numerator for the target period, which do not meet the exclusion criteria, and dividing by all Medicare Part A SNF stays included in the denominator for the target period.

        ii. **For the Change in Self-Care and Change in Mobility measures:** the cumulative quality measure score is derived by including all Medicare Part A SNF stays for the target period, which do not meet the exclusion criteria, and calculating the change scores for each Medicare Part A SNF stay. For instructions on calculating the change scores, please see **Chapter 7, Section 7.6**.

    c. Data submission deadline: data must be submitted by 11:59 p.m. ET on the 15th of August, November, February, or May after the end of each respective quarter. However, if the 15th of the month falls on a Friday, weekend, or federal holiday, the data submission deadline is delayed until 11:59 p.m. ET on the next business day.

        i. For example, the data submission deadline for Quarter 4 (October 1 through December 31) data collection would normally be 11:59 p.m. ET, May 15, which is the 15th day of the month, 4.5 months after the end of the data collection period. However, in FY 2022, May 15th fell on a Sunday; therefore, the deadline for this data submission was extended until the next business day which was 11:59 p.m. ET on May 16, 2022.

    d. The measure calculations for the quarterly rates and the cumulative rates are refreshed weekly.

2. Complete data (full target period) are available for previously existing quality measures. Only partial data will be available for new measures until a target period of data has accumulated. Once a target period of data has accumulated, as each quarter advances, the subsequent quarter will be added, and the earliest quarter will be removed.

3. Resident-level data will be displayed for each reporting quarter in the report.[26]

4. The illustration of the reporting timeline for the iQIES Review and Correct Reports for the following quality measures is provided in *Table 5-3* for the quarterly rates and *Table 5-4* for the cumulative rates:

    a. Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (CMS ID: S013.02)

    b. Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function ([27]) (CMS ID: S001.03)

    c. Drug Regimen Review Conducted With Follow-Up for Identified Issues–Post-Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S007.02)

    d. Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02)

    e. Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05)

    f. Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID: S025.05)

    g. Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04)

    h. Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04)

    i. Transfer of Health (TOH) Information to the Provider – PAC (CMS ID: S043.01)

    j. Transfer of Health (TOH) Information to the Patient – PAC (CMS ID: S044.01)

    k. Discharge Function Score (CMS ID: S042.01)

Data calculation rule: The calculations include resident Medicare Part A SNF stays with discharge dates through the end of the quarter.

Table 5-1 defines the discharge dates included for each calendar year quarter. *Table 5-2* displays whether the quality measure was considered new or existing for iQIES reporting in the user-requested year. For new measures, data is accumulated until 4 quarters have been collected and then rolling quarters occur for subsequent years. For existing measures, data is displayed based on rolling quarters.

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[26] Resident-level data became available for the Review and Correct reports in April 2019.

[27] This measure (S001.03) is an application of measure L009.03 and is not CBE endorsed.

Table 5-1
Discharge Dates for Each Quarter Defined by Calendar Year

Calendar Year Quarter	Discharge Dates Included in the Report
Quarter 1	January 1 through March 31
Quarter 2	April 1 through June 30
Quarter 3	July 1 through September 30
Quarter 4	October 1 through December 31

Table 5-2
Measure Types by User-Requested Year for all Assessment-Based (MDS) Quality Measures

Quality Measures	Measure Type by User-Requested Year	
	2023	2024
Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (CMS ID: S013.02)	Existing	Existing
Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function ([a]) (CMS ID: S001.03)	Existing	Removed
Drug Regimen Review Conducted With Follow-Up for Identified Issues–Post-Acute Care (PAC) Skilled Nursing Facility (SNF) Quality	Existing	Existing
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02)	Existing	Existing
Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05)	Existing	Existing
Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID: S025.05)	Existing	Existing
Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04)	Existing	Removed
Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04)	Existing	Removed
Discharge Function Score (CMS ID: S042.01)	--	New

[a] This measure (S001.03) is an application of measure L009.03 and is not CBE endorsed.

Table 5-3
iQIES Review and Correct Reports: Quarterly Rates Included in Each Requested Quarter End Date [a]

Requested Calendar Year Quarter End Date[b]	Measure Type	Quarter(s) Included from Previous Year[c]	Quarter(s) Included from User-Requested Year
Quarter 1, YYYY	New	–	Quarter 1
	Existing	Quarter 2 Quarter 3 Quarter 4	Quarter 1
Quarter 2, YYYY	New	–	Quarter 1 Quarter 2
	Existing	Quarter 3 Quarter 4	Quarter 1 Quarter 2
Quarter 3, YYYY	New	–	Quarter 1 Quarter 2 Quarter 3
	Existing	Quarter 4	Quarter 1 Quarter 2 Quarter 3
Quarter 4, YYYY	New	–	Quarter 1 Quarter 2 Quarter 3 Quarter 4
	Existing	–	Quarter 1 Quarter 2 Quarter 3 Quarter 4

[a] See **Table 5-1** for discharge dates included for each quarter and **Table 5-2** to determine the measure type for each quality measure.

[b] YYYY = User-Requested Year

[c] Calendar year prior to the User-Requested Year

Example of quarterly rates included in the iQIES Review and Correct Reports for an *existing* measure: If the requested calendar year quarter end date is Quarter 1, 2024 (end date of March 31st), the four quarters of data that will be provided in this request will include the following: Q2 2023 (April through June), Q3 2023 (July – September), Q4 2023 (October – December), and Q1 2024 (January – March).

Example of quarterly rates included in the iQIES Review and Correct Reports for a *new* measure: Typically, if the requested calendar year quarter end date is Quarter 1, 2024 (end date of March 31st), the only quarter of data that will be provided in this request will include the following: Q1 2024 (January – March).[28]

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[28] Because the Discharge Function Score measure calculations utilize data that are already being collected, quarterly rates will capture four quarters of data, beginning with data collected from Q1 2023 through Q4 2023 (January 1, 2023 through December 31, 2023) if technically feasible. Therefore, if the requested calendar year quarter end date is Quarter 1, 2024, the data that will be provided in this request will include the same range of dates as for existing measures.

Table 5-4
iQIES Review and Correct Reports: Data Included in the Cumulative Rate for Each Requested Quarter End Date

Requested Calendar Year Quarter End	Measure Type	Data Included from Previous Year[b]	Data Included from User-Requested Year
Quarter 1, YYYY	New	–	Quarter 1
	Existing	Quarter 2 through Quarter 4	Quarter 1
Quarter 2, YYYY	New	–	Quarter 1 through Quarter 2
	Existing	Quarter 3 through Quarter 4	Quarter 1 through Quarter 2
Quarter 3, YYYY	New	–	Quarter 1 through Quarter 3
	Existing	Quarter 4	Quarter 1 through Quarter 3
Quarter 4, YYYY	New	–	Quarter 1 through Quarter 4
	Existing	–	Quarter 1 through Quarter 4

[a] YYYY = User-Requested Year

[b] Calendar year prior to the User-Requested Year

Section 5.2 iQIES Quality Measure (QM) Reports

Below are the specifications for the iQIES QM Reports for measures presented in **Chapter 4, Section 4.2.**

1. Measures are calculated consistent with the methods in the previous section, **Chapter 5, Section 5.1, "iQIES Review and Correct Reports"**.

    a. Only the cumulative rates will be displayed using all data in the target period.

2. The illustration of the reporting timeline for the monthly iQIES QM Reports is provided in *Table 5-5* for the following measures:

    a. Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (CMS ID: S013.02)

    b. Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function ([29]) (CMS ID: S001.03)

    c. Drug Regimen Review Conducted With Follow-Up for Identified Issues–Post-Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S007.02)

    d. Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02)

    e. Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05)

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[29] This measure (S001.03) is an application of measure L009.03 and is not CBE endorsed.

f. Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID: S025.05)

g. Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04)

h. Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04)

Data calculation rule: The calculations include resident Medicare Part A SNF stays with discharge dates through the end of the month.

Table 5-5
iQIES QM Reports: Data Included in the Cumulative Rate for Each Requested Report End Dates

Requested Report End Date[a]	iQIES QM Report Calculation Month	Data Included from Previous Year[c]	Data Included from User-Requested Year
03/31/YYYY	February	April through December	January
(Quarter 1, YYYY)	March	April through December	January through February
	April	April through December	January through March
06/30/YYYY	May	July through December	January through April
(Quarter 2, YYYY)	June	July through December	January through May
	July	July through December	January through June
09/30/YYYY	August	October through December	January through July
(Quarter 3, YYYY)	September	October through December	January through August
	October	October through December	January through September
12/31/YYYY	November	–	January through October
(Quarter 4, YYYY)	December	–	January through November
	January	–	January through December

[a] YYYY = User-Requested Year

[b] If there is less than 12 months of data as of requested report end date, then use the earliest month of data available.
[c] Calendar year prior to the User-Requested Year

Section 5.3 Measure Calculations During the Transition from MDS 3.0 V1.17.2 to MDS 3.0 V1.18.11

The MDS 3.0 will transition from version 1.17.2 to version 1.18.11 effective October 1, 2023 and will impact certain quality measure specifications. Since the MDS has separate SNF stay admission and discharge assessments (i.e., PPS 5-Day and PPS Discharge), matching is required to create Medicare Part A SNF stays used for measure calculations. This presents a unique issue during the time of implementation when the old MDS assessment is filled out on admission and the new MDS assessment is filled out at discharge.

For Medicare Part A SNF stays with an admission prior to the implementation date of October 1, 2023 and discharges on or after October 1, 2023, the measure calculations will use the old measure specifications regarding items related to the admission assessment and the new measure specifications regarding items related to the discharge assessment. Two examples below illustrate this instruction:

- Resident admitted to the SNF on September 15, 2023 and discharged on October 15, 2023

    o Admission assessment (PPS 5-Day) would use MDS 3.0 V1.17.2 (old)

    o Discharge assessment (PPS Discharge) would use MDS 3.0 V1.18.11 (new)

        ▪ Specifications would be based on QM specifications in both the SNF QRP QM User's Manual V4.0 for references to the admission assessment and the SNF QRP QM User's Manual V5.0 for references to the discharge assessment.

            • Rationale: The resident was admitted before October 1 using MDS 4.0 V1.17.2, which is associated with the SNF QRP QM User's Manual V4.0 instructions.

- Resident admitted to the SNF on October 1, 2023 and discharged on October 30, 2023

    o Admission assessment (PPS 5-Day) would use MDS 3.0 V1.18.11 (new)

    o Discharge assessment (PPS Discharge) would use MDS 3.0 V1.18.11 (new)

    o Specifications would be based on QM specifications in the SNF QRP QM User's Manual V5.0

        ▪ Rationale: Both the admission and discharge assessments use MDS 3.0 V1.18.11 and the specifications refer to SNF QRP QM User's Manual V5.0.

For the iQIES reports, measure calculations are based on the discharge date. In the two examples above, both Medicare Part A SNF stays would be included in Quarter 4, 2023 since the discharge dates are between October 1 and December 31.

Chapter 6
Calculations for Unadjusted Observed Scores on Assessment-Based (MDS) Measures

Section 6.1 Introduction

For the Review and Correct Reports, only the facility-level observed score is computed; the facility's risk-adjusted score is not reported. This chapter presents technical details regarding the calculation of the unadjusted scores on the MDS-based SNF QRP quality measures. The detailed quality measure logical specifications are presented in **Chapter 8** of this manual. **Prior to the measure specification steps presented in Chapter 8, please refer to Chapter 4 on instructions to define the Medicare Part A SNF stays for the QM sample and for the record selection criteria.**

Section 6.2 Steps Used in Quality Measure Calculations

This section outlines the steps used to calculate the observed facility-level scores on MDS-based quality measures.

Measure Calculation Steps:

1. **Medicare Part A SNF Stay File Creation.** Using the methodology described in **Chapter 4**, identify Medicare Part A SNF stays and create the SNF stay file.

2. **Identify Excluded Medicare Part A SNF Stays.** For each quality measure with exclusions, Medicare Part A SNF stays are excluded if the measure exclusion criteria are met.

3. **Determine the denominator count**. For each quality measure, count the total number of Medicare Part A SNF stays that don't meet the exclusion criteria for each facility.

4. **Determine the numerator count.** For each quality measure, among the Medicare Part A SNF stays in the denominator, count the total number of Medicare Part A SNF stays that meet the criteria for the measure numerator in each facility.

5. **Calculate the facility-level observed score.** Divide the numerator by the denominator for each quality measure and each SNF. Multiply by 100 to obtain a percent value.

6. **Round the percent value to one decimal place**.

   a. If the digit in the second decimal place is 5 or greater, add 1 to the first decimal place, otherwise leave the first decimal place unchanged.

   b. Drop all the digits following the first decimal place.

7. **Final facility-level output file.** The final facility-level output files contain the following:

   a. Facility denominator count for each quality measure

   b. Facility numerator count for each quality measure

   c. Facility-level observed quality measure score

Chapter 7
Calculations for Assessment-Based (MDS) Measures That Are Risk-Adjusted

Section 7.1 Introduction

This chapter presents technical details regarding calculating the risk-adjusted scores on the MDS-based SNF QRP quality measures. The detailed quality measure logical specifications are presented in **Chapter 8** of this manual.

Currently, five assessment-based quality measures for the SNF QRP are risk-adjusted using resident-level covariates for public reporting:

- Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02)

- Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05)

- Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMD ID: S025.05)

- Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04)

- Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04)

- Discharge Function Score (CMS ID: S042.01)

Detailed specifications for resident-level covariates for the risk-adjusted measures are presented in **Chapter 8**, Quality Measure Logical Specifications.

Section 7.2 to **Section 7.4** outline the steps and methods used to calculate the risk-adjusted measure score for Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02). **Section 7.5** presents the steps specific to the measure calculations used for Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05) and Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID: S025.05). **Section 7.6** presents the steps specific to the measure calculations for Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04) and Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04). **Section 7.7** present the steps specific to the measure calculations for the Discharge Function Score measure (CMS ID S042.01).

Section 7.2 Steps Used in QM Calculations

This section outlines the steps used to calculate the risk-adjusted assessment-based SNF QRP quality measure Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02).

Measure Calculation Steps:

1. **Medicare Part A SNF stay file creation.** Using the methodology described in **Chapter 4**, identify Medicare Part A SNF stays and create the SNF stay file.

2. **Calculate the facility-level observed score.** To calculate the facility-level observed score, complete **Steps 1-5** from **Chapter 6, Section 6.2**.

3. **Create stay-level covariates.** If the covariate criteria are met, then assign the covariate a value of [1] for the stay. Otherwise, assign the covariate a value of [0].

4. **Run the Logistic Regressions**.

    a. Input: Medicare Part A SNF stay file.

    b. Dependent variable: Does the Medicare Part A SNF stay meet the criteria for the measure? (Yes = [1]; No = [0]).

    c. Predictors: Stay-level covariates.

    d. Calculation of logistic regressions: (See **Section 7.3, "Calculation of the Expected Quality Measure Score"** in this chapter).

    e. Output values: Logistic regression constant term and stay-level covariate coefficients for each of the quality measures. The resulting values are given in _**Table RA-3**_ and _**Table RA-4**_ in the associated Risk-Adjustment Appendix File.

5. **Calculate the stay-level expected quality measure scores.** Stay-level expected quality measure scores are calculated for each stay in the Medicare Part A SNF stay samples. (See **Section 7.3, "Calculation of the Expected Quality Measure Score"** in this chapter for formulas).

    a. Input: Logistic regression constant term and stay-level covariate coefficients from the previous step for each risk-adjusted quality measure.

    b. Output values: Stay-level expected quality measure scores for each stay, for each of the risk-adjusted quality measures.

6. **Calculate national average quality measure scores**[30]. National average observed quality measure scores are needed for calculating the facility-level risk-adjusted quality measure scores below. The national average observed quality measure scores are calculated for each risk-adjusted quality measure:

    a. Denominator: For each quality measure, count the total number of Medicare Part A SNF stays that don't meet the exclusion criteria.

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[30] The national average observed scores are calculated using the Medicare Part A SNF stay as the unit of analysis.

b. Numerator: For each quality measure, from the denominator sample, count the total number of Medicare Part A SNF stays that meet the criteria for numerator inclusion for the quality measure.

c. National average observed quality measure score: Divide the numerator by the denominator. The national average observed quality measure scores, required for these calculations, are presented in *__Table RA-1__* and *__Table RA-2__* in the associated Risk-Adjustment Appendix File.

7. **Calculate facility-level expected quality measure scores.** This is done by averaging the stay-level expected QM scores for each quality measure within each SNF.

8. **Calculate facility-level risk-adjusted quality measure scores**.

   a. Input for each of the risk-adjusted quality measures:

      i. Facility-level observed quality measure scores

      ii. Facility-level expected quality measure scores

      iii. National average observed quality measure score

   b. Calculation: (See **Section 7.4, "Calculation of the Risk-Adjusted quality measure Score"** of this chapter for formulas used in this calculation)

   c. Output: Facility-level risk-adjusted quality measure scores for the risk-adjusted quality measure

9. **Final facility-level output file.** The final facility-level output files contain the following:

   a. Facility denominator counts

   b. Facility-level risk-adjusted quality measure scores (reported for the risk-adjusted quality measure scores)

Section 7.3 Calculation of the Expected Quality Measure Score

This section outlines the steps used to calculate the risk-adjusted assessment-based SNF QRP quality measure Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02).

The stay-level expected score for a quality measure is an estimate of the likelihood that a stay will meet the criteria for the quality measure. This estimate is based on consideration of the stay-level covariates associated with the quality measure.

For the quality measures that are risk-adjusted with stay-level covariates, the stay-level expected quality measure score is calculated as an intermediate step to obtaining the risk-adjusted quality measure score for the facility. This section describes the technical details referred to in **Section 7.2** of this chapter.

Calculating Stay-level Expected QM Scores

For quality measures that use logistic regression in the risk adjustment, a stay-level logistic regression model is estimated. The stay-level observed quality measure score is the dependent

variable. The predictor variables are one or more stay-level covariates associated with the quality measure. Calculation of the quality measure and covariate scores are described in **Section 7.2** (**Step 5**) of this chapter.

Each logistic regression had the following form:

$$[1] \quad QM \ triggered \ (yes = 1, no = 0) = \beta_0 + \beta_1 * COV_1 + \beta_2 * COV_2 + \cdots + \beta_N * COV_N$$

Where:

- β_0 = the logistic regression constant

- β_1 = the logistic regression coefficient for the first covariate

- COV_1 = the stay-level value for the first covariate

- β_2 = the logistic regression coefficient for the second covariate, where applicable

- COV_2 = the stay-level value for the second covariate, where applicable

- β_N = the logistic regression coefficient for the Nth covariate, where applicable

- COV_N = the stay-level value for the Nth covariate, where applicable

- *Note, "N" represents the total number of covariates in the model.

Each stay's expected QM score could then be calculated with the following formula:

$$[2] \quad Stay \ level \ expected \ QM \ score = 1/[1 + e^{-x}]$$

Where:

- e = the base of natural logarithms

- x = a linear combination of the constant and the logistic regression coefficients times the covariate values (from Formula [1], above). Note: A covariate value will be equal to [1] if the covariate criterion is met for that stay, and equal to [0] if the criterion is not met.

As an example, consider the actual calculation used for the expected score for the measure *Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02)*. The covariates for that QM are obtained from the PPS 5-Day assessment (A0310B = [1]) and are the following:

- Indicator of requiring limited or more assistance in bed mobility self-performance

- Indicator of bowel incontinence at least occasionally

- Have diabetes or peripheral vascular disease or peripheral arterial disease

- Indicator of Low Body Mass Index, based on Height and Weight

The equation used for this example (with the parameters from **_Table RA-3_**[31]) is:

$$[3]\ QMScore = 1/[1 + e^{-(\beta_0 + \beta_1 * bedmob + \beta_2 * bowel + \beta_3 * diabetes + \beta_4 * BMI)}]$$

Where:

- β_0 = the logistic regression constant

- β_1 = the logistic regression coefficient for bed mobility

- **_Bedmob_** = the stay-level covariate indicating the need for limited or more assistance in bed mobility

- β_2 = the logistic regression coefficient for bowel incontinence at least occasionally

- **_bowel_** = the stay-level covariate indicating bowel incontinence at least occasionally

- β_3 = the logistic regression coefficient for diabetes or peripheral vascular disease or peripheral arterial disease

- **_diabetes_** = the stay-level covariate indicating diabetes or peripheral vascular disease or peripheral arterial disease

- β_4 = the logistic regression coefficient for low body mass index

- **_BMI_** = the stay-level covariate indicating low body mass index

The values for the covariate parameter for each of the *k* risk-adjustment coefficients (β_k) used for calculating the stay-level expected quality measure scores are presented in **_Table RA-3_** and **_Table RA-4_** in the associated Risk-Adjustment Appendix File.

Calculating Facility-level Expected Quality Measure Scores

Once an expected quality measure score has been calculated for all stays, the facility-level expected quality measure score is simply the average of all stay-level scores for each of the risk-adjusted quality measures.

Section 7.4 Calculation of the Risk-Adjusted Quality Measure Score

This section outlines the steps used to calculate the risk-adjusted assessment-based SNF QRP quality measure Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02).

The risk-adjusted quality measure score is a facility-level quality measure score adjusted for the specific risk for that quality measure in the SNF. The risk-adjusted quality measure score can be thought of as an estimate of what the SNF's quality measure rate would be if the facility had residents who were of average risk.

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[31] The regression constant (intercept) and coefficient values have been rounded to four decimal places. When applying these values to the equation to calculate QM scores, these intercept and coefficient values should be used; do not round to fewer than four decimal places. This is to ensure consistency and accuracy of measure calculations.

The facility-level risk-adjusted score is calculated on the basis of:

- The facility-level observed quality measure score;
- The facility-level expected quality measure score; **and**
- The national average observed quality measure score.

The actual calculation of the risk-adjusted score uses the following equation:

$$[4] \; Adj = \frac{1}{1+e^{-y}}$$

Where:

- e = the base of natural logarithms
- Adj = the facility-level risk-adjusted quality measure score
- y = the product of Formula **[5]**, below

$$[5] \; y = ln\left(\frac{Obs}{1-Obs}\right) - ln\left(\frac{Exp}{1-Exp}\right) + ln\left(\frac{Nat}{1-Nat}\right)$$

Where:

- Obs = the facility-level observed quality measure score
- Exp = the facility-level expected quality measure score
- Nat = the national observed quality measure score
- ln = the natural logarithm

Note: Because there is limited public accessibility to national assessment data, this document provides a national average observed score based on the reporting period of the regression intercept and coefficients. The national average observed score can be seen in __Table RA-1__ and __Table RA-2__ in the associated Risk-Adjustment Appendix File. Please note that, depending on the reporting period and time of calculation, the national average observed score used in the iQIES QM Report, Provider Preview Report, and on public display on the Compare Website may vary from the national average observed score provided in these documents.

Note that the risk-adjusted quality measure rate (*Adj*) is calculated differently in two special cases:

1. If the facility-level observed score (*Obs*) equals 0, then the facility-level risk-adjusted score (*Adj)* is set to 0.00 (without using the equation).

2. If the facility-level observed score (*Obs*) equals 1, then the facility-level risk-adjusted score (*Adj)* is set to 1.00 (without using the equation).

The adjusted quality measure score equation will produce risk-adjusted scores in the range of 0 to 1. These risk-adjusted scores can then be converted to percentages for ease of interpretation by

multiplying the risk-adjusted score (*Adj*) by 100 and rounding the percent value to one decimal place.

1. If the digit in the second decimal place is 5 or greater, add 1 to the first decimal place; otherwise, leave the first decimal place unchanged.

2. Drop all the digits following the first decimal place.

These risk-adjusted score calculations are applied to quality measures that use expected scores based on stay-level covariates (See **Section 7.3** of this chapter). The national average observed quality measure rates, required for these calculations, are presented in **_Table RA-1_** and **_Table RA-2_** in the associated Risk-Adjustment Appendix File.

Section 7.5 Measure Calculations Used in Discharge Self-Care and Mobility Measures

This section presents the steps specific to the measure calculations used for Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05) and Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMD ID: S025.05).

1. **Calculate the observed discharge score** (items and valid codes are identified in **_Table 8-5_** and **_Table 8-6_**) for each stay.

   1.1. To obtain the score, use the recoding procedure (identified in **_Table 8-5_** and **_Table 8-6_**).

   1.2. Sum the values of the items to create a discharge score for each Medicare Part A SNF stay record.

2. **Identify excluded stays**, as defined in **_Table 8-5_** and **_Table 8-6_**, and **determine the included records**, or the total number of Medicare Part A SNF Stays that did not meet the exclusion criteria.

3. **Calculate the expected discharge score for each stay**.

   For each stay-level record: use the intercept and regression coefficients to calculate the expected discharge score using the formula below:

   $$[1]\ Expected\ score = \beta_0 + \beta_1(COV_1) + ... + \beta_n(COV_n)$$

   Where:

- *Expected score* estimates an expected discharge score.

- β_0 is the regression intercept.

  - $\beta_1 through\ \beta_n$ are the regression coefficients for the covariates (see Risk-Adjustment Appendix File). Note that any expected discharge score greater than the maximum would be recoded to be the maximum score.

See the associated Risk-Adjustment Appendix File for the regression intercept and coefficients as well as detailed MDS coding logic for each risk adjustor (**_Table RA-5_**, **_Table RA-8_**, and **_Table_**

_**RA-9**_).[32] The regression intercept and regression coefficients are values obtained through Generalized Linear Model regression analysis. Please note that the iQIES QM and Provider Preview Reports use fixed regression intercepts and coefficients based on the target period stated in _**Table RA-5,**_ _**Table RA-8**_, and _**Table RA-9**_ in the associated Risk-Adjustment Appendix File.

4. **Calculate the difference between the observed and expected discharge scores**. For each Medicare Part A SNF stay record, compare each stay's observed discharge score (**Step 1.2**) and expected discharge score (**Step 3**) and classify the difference as one of the following:

    4.1. Observed discharge score is equal to or greater than the expected discharge score.

    4.2. Observed discharge score is less than the expected discharge score.

5. **Determine the denominator count**. Determine the total number of Medicare Part A SNF stays that do not meet the exclusion criteria.

6. **Determine the numerator count**. The numerator for this quality measure is the number of Medicare Part A SNF stays with an observed discharge score that is the same as or higher than the expected discharge score (**Step 4.1**).

7. **Calculate the facility-level discharge percent**. Divide the facility's numerator count by its denominator count and multiply that value by 100 to obtain the facility-level discharge percent value; that is, divide the result of **Step 6** by the result of **Step 5** and then multiply by 100 to obtain a percent value.

8. **Round the percent value to one decimal place**.

    8.1. If the digit in the second decimal place is 5 or greater, add 1 to the first decimal place; otherwise, leave the first decimal place unchanged.

    8.2. Drop all the digits following the first decimal place.

Section 7.6 Measure Calculations Used in Change in Self-Care and Mobility Measures

This section presents the steps specific to the measure calculations for Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04) and Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04).

1. **Calculate the observed scores (admission and discharge)** items and valid codes are identified in _Table 8-7_ and _Table 8-8._

    1.1. To obtain the score, use the recoding procedure (identified in _Table 8-7_ and _Table 8-8_).

    1.2. Sum the values of the items to create a score for each Medicare Part A SNF stay record.

2. **Identify excluded stays**, as defined in _Table 8-7_ and _Table 8-8_.

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[32] The regression constant (intercept) and coefficient values have been rounded to four decimal places. When applying these values to the equation to calculate facility-level QM scores, these intercept and coefficient values should be used; do not round to fewer than four decimal places. This is to ensure consistency and accuracy of measure calculations.

3. **Determine the included records.** Determine the total number of Medicare Part A SNF stays that did not meet the exclusion criteria. Note that this measure does not have a simple form for the numerator and denominator.

4. **Calculate the observed change in scores for each stay-level record.** For each stay-level record included, calculate the difference between the admission score and the discharge score. If a stay's score decreased from admission to discharge, the difference will be a negative value.

5. **Calculate the facility-level average observed change in score.** Calculate an average observed change in score for each SNF as the mean of the observed change in scores for all stays in the facility that are not excluded (**Step 4**).

6. **Calculate the national average change in score**[33] as the mean of the observed change in scores for all Medicare Part A SNF stays calculated from **Steps 1-4** in **Chapter 7, Section 7.6**. This will be used in **Step 9** to calculate the risk-adjusted average change in score.

7. **Calculate the expected change in score.**

    7.1. For each stay-level record, use the intercept and regression coefficients to calculate the expected change in score using the formula below:

    $$[1] \; Expected \; change \; score = \beta_0 + \beta_1(COV_1) + \ldots + \beta_n(COV_n)$$

    Where:

    - *Expected change in score* identifies the expected change in score for each SNF stay.

    - β_0 is the regression intercept.

    - β_1 *through* β_n are the regression coefficients for the covariates (see Risk-Adjustment Appendix File).

See **Appendix A**, *Table A-4*, in the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual Version 4.0 and the associated Risk-Adjustment Appendix File for the regression intercept and coefficients as well as detailed MDS coding logic for each risk adjustor.[34] The regression intercept and regression coefficients are values obtained through Generalized Linear Model regression analysis. Please note that the iQIES QM and Provider Preview Reports use fixed regression intercepts and coefficients based on the target period stated in **Appendix A**, *Table A-4* and the associated Risk-Adjustment Appendix File.

8. **Calculate the facility-level average expected change in score.** Calculate an average expected change in score for each SNF as the mean of the expected change in scores for all stays in the facility.

9. **Calculate the risk-adjusted average change score.**

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[33] The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

[34] The regression constant (intercept) and coefficient values are rounded to four decimal places. When applying these values to the equation to calculate facility-level QM scores, these intercept and coefficient values should be used; do not round to fewer than four decimal places. This is to ensure consistency and accuracy of measure calculations.

9.1. Calculate the difference between the facility-level observed change in score (**Step 5**) and the facility-level expected change in score (**Step 8**) to create an observed minus expected difference.

- A value that is 0 indicates the observed score and expected score are equal.

- A value that is greater than 0 indicates that the observed change in score is higher (better) than the expected score.

- A value that is less than 0 indicates that the observed change in score is lower (worse) than the expected score.

9.2. Add each SNF´s difference value (**Step 9.1**) to the national average change in score (**Step 6**). This is the SNF's risk-adjusted mean change in score.

10. **Round the risk-adjusted average change in score to one decimal place**.

10.1. If the digit in the second decimal place is 5 or greater, add 1 to the first decimal place; otherwise, leave the first decimal place unchanged.

10.2. Drop all the digits following the first decimal place.

Section 7.7 Measure Calculation Used in Discharge Function Score Measure (CMS ID: S042.01)

This section presents the steps specific to the measure calculations used for the Discharge Function Score Measure (CMS ID: S042.01).

1. **Identify excluded SNF stays**, as defined in *Table 8-11*, and **determine the included records**, or the total number of Medicare Part A SNF stays that did not meet the exclusion criteria.

2. **Calculate the observed discharge function score** (discharge function items and valid codes are identified in *Table 8-11*) for each stay.

2.1. To obtain the value for items with NA codes (07, 09, 10, 88), dashes, skips, or missing codes, use the statistical imputation procedure (identified in *Table 8-11*) to estimate the code for each item and use this code as the value.

2.2. Sum the values of the items to calculate the total observed discharge function score for each Medicare Part A SNF stay record. Scores can range from 10 to 60, with a higher score indicating greater independence.

3. **Calculate the expected discharge function score for each stay**.

For each stay-level record: use the intercept and regression coefficients to calculate the expected discharge function score using the formula below:

[1] *Expected discharge function score = $\beta_0 + \beta_1 x_1 + \ldots + \beta_n x_n$*

Where:

- *Expected discharge function score* estimates an expected discharge function score.

- β_0 is the regression intercept.

- β_1 through β_n are the regression coefficients for the covariates (see Risk Adjustment Appendix File).

- $x_1 - x_n$ are the risk adjustors.

Note that any expected discharge function score greater than the maximum should be recoded to the maximum score (i.e., 60).

See **_Table RA-5_** and **_Table RA-10_** in the associated Risk-Adjustment Appendix File for the regression intercept and coefficients as well as detailed MDS coding logic for each risk adjustor.[35] The admission function values are included in the covariates and calculated using the same procedure as the observed discharge function scores, including the replacement of NA codes, dashes, skips, or missing codes with imputed values.[36] The regression intercept and regression coefficients are values obtained through ordinary least squares linear regression analysis on all eligible Medicare Part A SNF stays. Please note that the iQIES QM and Provider Preview Reports use fixed regression intercepts and coefficients based on the target period in **_Table RA-5_** and **_Table RA-10_** in the associated Risk-Adjustment Appendix File.

4. **Calculate the difference between the observed and expected discharge function scores**. For each Medicare Part A SNF stay record which does not meet the exclusion criteria, compare each stay's observed discharge function score (**Step 2**) and expected discharge function score (**Step 3**) and classify the difference as one of the following:

    4.1. Observed discharge score is equal to or greater than the expected discharge score.

    4.2. Observed discharge score is less than the expected discharge score.

5. **Determine the denominator count**. Determine the total number of Medicare Part A SNF stays with an MDS in the measure target period, which do not meet the exclusion criteria.

6. **Determine the numerator count**. The numerator for this quality measure is the number of Medicare Part A SNF stays with an observed discharge function score that is the same as or greater than the expected discharge function score (**Step 4.1**).

7. **Calculate the facility-level discharge function percent**. Divide the facility's numerator count (**Step 6**) by its denominator count (**Step 5**), to obtain the facility-level discharge function proportion, then multiply by 100 to obtain a percent value.

8. **Round the percent value to two decimal places**.

    8.1. If the digit in the third decimal place is 5 or greater, add 1 to the second decimal place; otherwise, leave the second decimal place unchanged.

    8.2. Drop all digits following the second decimal place.

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[35] The regression constant (intercept) and coefficient values have been rounded to four decimal places. When applying these values to the equation to calculate facility-level QM scores, these intercept and coefficient values should be used; do not round to fewer than four decimal places. This is to ensure consistency and accuracy of measure calculations.

[36] To calculate imputed values for GG items at admission, repeat Steps 2.4.1-2.4.4, replacing the word "discharge" with the word "admission."

Chapter 8
Measure Logical Specifications for Assessment-Based (MDS) Quality Measures

Table 8-1
Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (CMS ID: S013.02)

Measure Description
This quality measure reports the percentage of Medicare Part A SNF stays where one or more falls with major injury (defined as bone fractures, joint dislocations, closed head injuries with altered consciousness, or subdural hematoma) were reported during the SNF stay.

Measure Specifications[a]
If a resident has multiple Medicare Part A SNF stays during the target 12 months, then all stays are included in this measure. *Numerator* The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only) in the denominator with one or more look-back scan assessments that indicate one or more falls that resulted in major injury (J1900C = [1, 2]). *Denominator* The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only) with one or more assessments that are eligible for a look-back scan[b] (except those with exclusions). *Exclusions* Medicare Part A SNF stays are excluded if: 1. The number of falls with major injury was not coded; i.e., J1900C (Falls with Major Injury) = [-]. 2. The resident died during the SNF stay (i.e. **Type 2 SNF Stays**).   a. Type 2 SNF Stays are SNF stays with a PPS 5-Day Assessment (A0310B = [01]) and a matched Death in Facility Tracking Record (A0310F = [12]).

Covariates
None.

[a] The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

[b] Please refer to **Chapter 1, Section 1.2** for a list of assessments that are included in the look-back scan.

Table 8-2
Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (CMS ID: S001.03)[a]

Measure Description
This quality measure reports the percentage of Medicare Part A SNF stays with an admission and discharge functional assessment and a care plan that addresses function.

Measure Specifications[b]

If a resident has multiple Medicare Part A SNF stays during the target 12 months, then all stays are included in this measure.

Incomplete and Complete Medicare Part A SNF stays (Type 1 SNF Stays or Type 2 SNF Stays):
Incomplete SNF Medicare Part A SNF Stays: Residents with incomplete stays (*incomplete = [1]*) are identified based on the following criteria using the specified data elements:

1. Unplanned discharge, which would include discharge against medical advice, indicated by A0310G (Type of Discharge) = 2 (Unplanned discharge) [as indicated on an OBRA Discharge (RFA: A0310F = [10, 11]) at the end of the SNF stay that has a discharge date (A2000) that is on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
   OR
2. Discharge to acute hospital, long-term care hospital, psychiatric hospital indicated by A2100 = [03, 04, 09], [as indicated on an MDS Discharge (RFA: A0310F = [10, 11]) that has a discharge date (A2000) that is on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
   OR
3. SNF PPS Part A stay less than 3 days ((A2400C minus A2400B) < 3 days)
   OR
4. The resident died during the SNF stay (i.e., **Type 2 SNF Stays**). Type 2 SNF Stays are SNF stays with a PPS 5-Day Assessment (A0310B = [01]) and a matched Death in Facility Tracking Record (A0310F = [12]).

Complete Medicare Part A SNF Stays: Medicare Part A SNF stays not meeting the definition of incomplete stays are considered complete Medicare Part A SNF stays (*incomplete = [0]*).

Numerator:
For complete Medicare Part A SNF stays (*incomplete = [0])* in the denominator, three criteria are required for inclusion in the numerator: (i) complete admission functional assessment data on the PPS 5-Day assessment, ***and*** (ii) a discharge goal for at least one self-care or mobility item on the PPS 5-Day assessment, ***and*** (iii) complete discharge functional assessment data on the Part A PPS Discharge Assessment.

For incomplete Medicare Part A SNF stays (*incomplete = [1]*) in the denominator, collection of discharge functional status might not be feasible. Therefore, two criteria are required for inclusion in the numerator: (i) complete admission functional assessment data on the PPS 5-Day assessment, ***and*** (ii) a discharge goal for at least one self-care or mobility item on the PPS 5-Day assessment.

(continued)

Table 8-2 (continued)
Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (CMS ID: S001.03)ᵃ

Measure Specificationsᵇ

Specifications for complete admission functional assessment data:

For admission functional assessment data to be complete, each condition listed below **must** be met.

1. GG0130A1. Eating = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
2. GG0130B1. Oral hygiene = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
3. GG0130C1. Toileting hygiene = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
4. GG0170B1. Sit to lying = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
5. GG0170C1. Lying to sitting on side of bed = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
6. GG0170D1. Sit to stand = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
7. GG0170E1. Chair/bed-to-chair transfer = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
8. GG0170F1. Toilet transfer = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
9. GG0170I1. Walk 10 feet = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*

For residents who are walking as indicated by a valid functional code [01, 02, 03, 04, 05, 06] for GG0170I1, include items:
10. GG0170J1. Walk 50 feet with two turns = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88] *and*
11. GG0170K1. Walk 150 feet = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]

For residents who are not walking as indicated by GG0170I1 = 07, 09, 10, or 88, GG0170J1 and GG0170K1 are skipped (^).

For residents who use a wheelchair as indicated by GG170Q1=1, include items:
12. GG0170R1. Wheel 50 feet with two turns = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88] *and*
13. GG0170RR1. Indicate the type of wheelchair or scooter used = [1, 2] *and*
14. GG0170S1. Wheel 150 feet = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88] *and*
15. GG0170SS1. Indicate the type of wheelchair or scooter used = [1, 2]

For residents who do not use a wheelchair as indicated by GG0170Q1=0, GG0170R1, GG0170RR1, GG0170S1, and GG0170SS1 are skipped (^).

Specifications for a discharge goal (documenting a care plan that includes function):

For the discharge goal, at least one of the items listed below **must** have a valid code as specified.

1. GG0130A2. Eating = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
2. GG0130B2. Oral hygiene = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
3. GG0130C2. Toileting hygiene = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
4. GG0130E2 Shower/bathe self = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
5. GG0130F2 Upper body dressing = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
6. GG0130G2 Lower body dressing = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
7. GG0130H2 Putting on/taking off footwear = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
8. GG0170A2 Roll left and right = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
9. GG0170B2. Sit to lying = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
10. GG0170C2. Lying to sitting on side of bed = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*

Table 8-2 (continued)
Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (CMS ID: S001.03)ᵃ

Measure Specificationsᵇ
11. GG0170D2. Sit to stand = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*

11. GG0170D2. Sit to stand = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
12. GG0170E2. Chair/bed-to-chair transfer = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
13. GG0170F2. Toilet transfer = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
14. GG0170G2 Car transfer = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
15. GG 0170I2 walk 10 feet = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
16. GG0170J2. Walk 50 feet with two turns = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
17. GG0170K2. Walk 150 feet = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
18. GG0170L2. Walking 10 feet on uneven surfaces = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
19. GG0170M2. 1 step (curb) = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
20. GG0170N2. 4 steps = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
21. GG0170O2. 12 steps = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
22. GG0170P2. Picking up object = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
23. GG0170R2. Wheel 50 feet with two turns = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *or*
24. GG0170S2. Wheel 150 feet = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88].

Specifications for complete discharge functional assessment data:

For discharge functional assessment data to be complete, each condition listed below **must** be met. This only applies to residents with complete stays (discharge functional assessment data is not required for incomplete stays).

1. GG0130A3. Eating = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
2. GG0130B3. Oral hygiene = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
3. GG0130C3. Toileting hygiene = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
4. GG0170B3. Sit to lying = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
5. GG0170C3. Lying to sitting on side of bed = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
6. GG0170D3. Sit to stand = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
7. GG0170E3. Chair/bed-to-chair transfer = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
8. GG0170F3. Toilet transfer = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
9. GG0170I3. Walk 10 feet = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*

For residents who are walking as indicated by a valid functional code [01, 02, 03, 04, 05, 06] for GG0170I3, include items:
10. GG0170J3. Walk 50 feet with two turns = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]; *and*
11. GG0170K3. Walk 150 feet = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88].

For residents who are not walking, as indicated by GG0170I3= 07, 09, 10, or 88, GG0170J3 and GG0170K3 are skipped (^).

For residents who use a wheelchair as indicated by GG170Q3=1, include items:
12. GG0170R3. Wheel 50 feet with two turns = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88] *and*
13. GG0170RR3. Indicate the type of wheelchair or scooter used = [1, 2] *and*
14. GG0170S3. Wheel 150 feet = [01, 02, 03, 04, 05, 06, 07, 09, 10, 88]) *and*
15. GG0170SS3. Indicate the type of wheelchair or scooter used = [1, 2].

(continued)

Table 8-2 (continued)
Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function CMS ID: S001.03)ᵃ

Measure Specificationsᵇ
For residents who do not use a wheelchair as indicated by GG0170Q3=0, GG0170R3, GG0170RR3, GG0170S3, and GG0170SS3 are skipped (^). ***Denominator*** The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** and **Type 2 SNF Stays**) with a Medicare Part A SNF Stay End Date (A2400C) during the measure target period. ***Exclusions*** There are no denominator exclusions for this measure.
Covariates
None.

ᵃ This measure is an application of measure L009.03 and is finalized for reporting by SNFs under the SNF QRP (Federal Register 80(4 August 2015): 46389-46477).

ᵇ The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

Table 8-3
Drug Regimen Review Conducted With Follow-Up for Identified Issues–Post-Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S007.02)[a]

Measure Description
This measure reports the percentage of Medicare Part A SNF stays in which a drug regimen review was conducted at the time of admission and timely follow-up with a physician occurred each time potential clinically significant medication issues were identified throughout the stay.

Measure Specifications[b]
If a resident has multiple Medicare Part A SNF stays during the target 12 months, then all stays are included in this measure.

Numerator
The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only) in the denominator meeting each of the following two criteria:

1. The facility conducted a drug regimen review on admission which resulted in one of the three following scenarios:
   a. No potential or actual clinically significant medication issues were found during the review (N2001 = [0]); OR
   b. Potential or actual clinically significant medication issues were found during the review (N2001 = [1]) and then a physician (or physician-designee) was contacted and prescribed/recommended actions were completed by midnight of the next calendar day (N2003 = [1]); OR
   c. The resident was not taking any medications (N2001 = [9]).

2. Appropriate follow-up occurred each time a potential or actual clinically significant medication issue was identified during the stay (N2005 = [1]); or no potential or actual clinically significant medications issues were identified since the admission or resident was not taking any medications (N2005 = [9]).

Denominator
The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only) during the reporting period.

Exclusions
Medicare Part A SNF stays are excluded if:

1. The resident died during the SNF stay (i.e., **Type 2 SNF Stays**).
   a. Type 2 SNF Stays are SNF stays with a PPS 5-Day Assessment (A0310B = [01]) and a matched Death in Facility Tracking Record (A0310F = [12]).

Covariates
None.

[a] This measure was finalized for reporting by SNFs under the SNF QRP (Federal Register 81 (5 August 2016): 52034-52039).

[b] The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

Table 8-4
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02)

Measure Description
This measure reports the percentage of Medicare Part A SNF stays with Stage 2-4 pressure ulcers, or unstageable pressure ulcers due to slough/eschar, non-removable dressing/device, or deep tissue injury, that are new or worsened since admission. The measure is calculated by reviewing a resident's MDS pressure ulcer discharge assessment data for reports of Stage 2-4 pressure ulcers, or unstageable pressure ulcers due to slough/eschar, non-removable dressing/device, or deep tissue injury, that were not present or were at a lesser stage at the time of admission.

Measure Specifications[a]

If a resident has multiple Medicare Part A SNF stays during the target 12 months, then all stays are included in this measure.

Numerator
The numerator is the number of Medicare Part A SNF stays (**Type 1 SNF Stays** only) in the denominator for which the discharge assessment indicates one or more new or worsened Stage 2-4 pressure ulcers, or unstageable pressure ulcers due to slough/eschar, non-removable dressing/device, or deep tissue injury, compared to admission.

1. Stage 2 (M0300B1) **-** (M0300B2) > 0, OR
2. Stage 3 (M0300C1) **-** (M0300C2) > 0, OR
3. Stage 4 (M0300D1) **-** (M0300D2) > 0, OR
4. Unstageable – Non-removable dressing/device (M0300E1) – (M0300E2) > 0, OR
5. Unstageable – Slough and/or eschar (M0300F1) – (M0300F2) > 0, OR
6. Unstageable – Deep tissue injury (M0300G1) – (M0300G2) > 0

Denominator
The denominator is the number of Medicare Part A SNF stays (**Type 1 SNF Stays** only) in the selected time window for SNF residents ending during the selected time window, except those that meet the exclusion criteria.

Exclusions
Medicare Part A SNF stays are excluded if:

1. Data on new or worsened Stage 2, 3, 4, and unstageable pressure ulcers, including deep tissue injuries, are missing [-] at discharge, i.e.:
   a. (M0300B1 = [-] or M0300B2 = [-]) and (M0300C1 = [-] or M0300C2 = [-]) and (M0300D1 = [-] or (M0300D2 = [-]) and (M0300E1 = [-] or M0300E2 = [-]) and (M0300F1 = [-] or M0300F2 = [-]) and (M0300G1 = [-] or M0300G2 = [-])

2. The resident died during the SNF stay (i.e., **Type 2 SNF Stays**).
   a. Type 2 SNF Stays are SNF stays with a PPS 5-Day Assessment (A0310B = [01]) and a matched Death in Facility Tracking Record (A0310F = [12]).

(continued)

Covariates

1. Functional Mobility Admission Performance:
   Coding of dependent or substantial/maximal assistance for the functional mobility item Lying to Sitting on Side of Bed at admission
   a.   Covariate = [1] (yes) if GG0170C1 = [01, 02, 07, 09, 10, 88] ([01] = Dependent, [02] =Substantial/maximal assistance, [07] = Resident refused, [09] = Not applicable, [10] = Not attempted due to environmental limitations, [88] = Not attempted due to medical condition or safety concerns)
   b.   Covariate = [0] (no) if GG0170C1 = [03, 04, 05, 06, -] ([03] =Partial/moderate assistance, [04] =Supervision or touching assistance, [05] =Setup or clean-up assistance, [06] = Independent, [-] =No response available)
 	
2. Bowel Incontinence:
   Bowel Continence (H0400) at admission
   a.   Covariate = [1] (yes) if H0400 = [1, 2, 3] ([1] = Occasionally incontinent, [2] = Frequently incontinent, [3] = Always incontinent)
   b.   Covariate = [0] (no) if H0400 = [0, 9, -] ([0] = Always continent, [9] = Not rated, [-] = Not assessed/no information)
 	
3. Peripheral Vascular Disease / Peripheral Arterial Disease or Diabetes Mellitus:
   a.   Covariate = [1] (yes) if any of the following are true:
      i.   Active Peripheral Vascular Disease (PVD) or Peripheral Arterial Disease (PAD) in the last 7 days (I0900 = [1] (checked))
      ii.   Active Diabetes Mellitus (DM) in the last 7 days (I2900 = [1] (checked))
   b.   Covariate = [0] (no) if I0900 = [0, -] AND I2900 = [0, -] ([0] = No, [-] = No response available)
 	
4. Low body mass index (BMI), based on height (K0200A) and weight (K0200B):
   a.   Covariate = [1] (yes) if BMI ≥ [12.0] AND ≤[19.0]
   b.   Covariate = [0] (no) if BMI < [12.0] OR BMI >[19.0]
   c.   Covariate = [0] (no) if K0200A = [0, 00, -] OR K0200B = [-] ([-] = not assessed/no information)
 	
   Where: BMI = (weight * 703 / height^2) = ([K0200B] * 703) / (K0200A^2) and the resulting value is rounded to one decimal place[b].
 	
See covariate details in **_Table RA-3_** and **_Table RA-4_** in the associated Risk-Adjustment Appendix File.

[a] The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

[b] To round off the percent value to one decimal place, if the digit in the second decimal place is greater than 5, add 1 to the digit in the first decimal place, otherwise leave the digit in the first decimal place unchanged. Drop all the digits following the digit in the first decimal place.

Table 8-5

Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05)[a]

Measure Description
This measure estimates the percentage of Medicare Part A SNF stays that meet or exceed an expected discharge self-care score.

Measure Specifications[b]

If a resident has multiple Medicare Part A SNF stays during the target 12 months, then all stays are included in this measure.

Self-Care items and Rating scale:
The Self-Care assessment items used for discharge Self-Care score calculations are:

- GG0130A3. Eating
- GG0130B3. Oral hygiene
- GG0130C3. Toileting hygiene
- GG0130E3. Shower/bathe self
- GG0130F3. Upper body dressing
- GG0130G3. Lower body dressing
- GG0130H3. Putting on/taking off footwear

Valid codes and code definitions for the coding of the discharge Self-Care items are:

- 06 – Independent
- 05 – Setup or clean-up assistance
- 04 – Supervision or touching assistance
- 03 – Partial/moderate assistance
- 02 – Substantial/maximal assistance
- 01 – Dependent
- 07 – Resident refused
- 09 – Not applicable
- 10 – Not attempted due to environmental limitations
- 88 – Not attempted due to medical condition or safety concerns
- ^ – Skip pattern
- - Not assessed/no information

To obtain the discharge self-care score, use the following procedure:

- If code is between 01 and 06, then use code as the value.
- If code is 07, 09, 10, or 88, then recode to 01 and use this code as the value.
- If the self-care item is skipped (^), dashed (-) or missing, recode to 01 and use this code as the value.

Sum the values of the discharge self-care items to create a discharge self-care score for each Medicare Part A SNF stay record. Scores can range from 7 to 42, with a higher score indicating greater independence.

(continued)

Table 8-5 (continued)
Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05)ᵃ

Measure Specificationsᵇ

Numerator
The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only) in the denominator, except those that meet the exclusion criteria, with a discharge self-care score that is equal to or higher than the calculated expected discharge self-care score.

Denominator
The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only), except those that meet the exclusion criteria.

Exclusions
Medicare Part A SNF stays are excluded if:

1. The Medicare Part A SNF stay is an incomplete stay: Residents with incomplete stays (*incomplete = [1]*) are identified based on the following criteria using the specified data elements:
   a. Unplanned discharge, which would include discharge against medical advice, indicated by A0310G (Type of Discharge) = 2 (Unplanned discharge) [as indicated on an OBRA Discharge (RFA: A0310F = [10, 11]) that has a discharge date (A2000) that is on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
      OR
   b. Discharge to acute hospital, long-term care hospital, psychiatric hospital indicated by A2105 = [04, 05, 07]. [as indicated on an MDS Discharge (RFA: A0310F = [10, 11]) that has a discharge date (A2000) that is on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
      OR
   c. SNF PPS Part A stay less than 3 days ((A2400C minus A2400B) < 3 days)
      OR
   d. The resident died during the SNF stay (i.e., **Type 2 SNF Stays**). Type 2 SNF Stays are SNF stays with a PPS 5-Day Assessment (A0310B = [01]) and a matched Death in Facility Tracking Record (A0310F = [12]).

2. The resident has any of the following medical conditions at the time of admission (i.e., on the 5-Day PPS assessment):
   a. Coma, persistent vegetative state, complete tetraplegia, severe brain damage, locked-in syndrome, or severe anoxic brain damage, cerebral edema or compression of brain, as identified by: B0100 (Comatose) = 1 or ICD-10 codes (see **Appendix B**, *Table B-1*).

3. The resident is younger than age 18:
   a. A1600 (Entry Date) – A0900 (Birth Date) is less than 18 years.
   b. Age is calculated in years based on the truncated difference between entry date (A1600) and birth date (A0900); i.e., the difference is not rounded to the nearest whole number

4. The resident is discharged to hospice or received hospice while a resident:
   a. A2105 (Discharge status) = [09, 10] or O0110K1b (Hospice while a Resident) = [1]

5. The resident did not receive physical or occupational therapy services at the time of admission (i.e., on the 5- Day PPS assessment):
   a. (Sum of O0400B1 + O0400B2 + O0400B3 = [0]) and (sum of O0400C1 + O0400C2 + O0400C3 = [0])

(continued)

Table 8-5 (continued)
Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05)[a]

Covariates
Data for each covariate are derived from the admission assessment included in the target Medicare Part A SNF stay.   1. **Age group** 2. **Admission self-care – continuous form** 3. **Admission self-care – squared form** 4. **Primary medical condition category** 5. **Interaction between primary medical condition category and admission self-care** 6. **Prior surgery** 7. **Prior functioning: self-care** 8. **Prior functioning: indoor mobility (ambulation)** 9. **Prior mobility device use** 10. **Stage 2 pressure ulcer** 11. **Stage 3, 4, or unstageable pressure ulcer/injury** 12. **Cognitive abilities** 13. **Communication Impairment** 14. **Urinary Continence** 15. **Bowel Continence** 16. **Tube feeding or total parenteral nutrition** 17. **Comorbidities**   See covariate details in ***Table RA-5*** and ***Table RA-8*** in the associated Risk-Adjustment Appendix File**.**

[a] This measure was finalized for reporting by SNFs under the SNF QRP (Federal Register 82 (4 August 2017): 36530-36636).

[b] The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

Table 8-6
Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID: S025.05)[a]

Measure Description
This measure estimates the percentage of Medicare Part A SNF stays that meet or exceed an expected discharge mobility score.

Measure Specifications[b]
If a resident has multiple Medicare Part A SNF stays during the target 12 months, then all stays are included in this measure.

Mobility items and Rating scale:
The Mobility assessment items used for discharge Mobility score calculations are:
- GG0170A3. Roll left and right
- GG0170B3. Sit to lying
- GG0170C3. Lying to sitting on side of bed
- GG0170D3. Sit to stand
- GG0170E3. Chair/bed-to-chair transfer
- GG0170F3. Toilet transfer
- GG0170G3. Car transfer
- GG0170I3. Walk 10 feet
- GG0170J3. Walk 50 feet with two turns
- GG0170K3. Walk 150 feet
- GG0170L3. Walking 10 feet on uneven surfaces
- GG0170M3. 1 step (curb)
- GG0170N3. 4 steps
- GG0170O3. 12 steps
- GG0170P3. Picking up object

Valid codes and code definitions for the coding of the discharge Mobility items are:
- 06 – Independent
- 05 – Setup or clean-up assistance
- 04 – Supervision or touching assistance
- 03 – Partial/moderate assistance
- 02 – Substantial/maximal assistance
- 01 – Dependent
- 07 – Resident refused
- 09 – Not applicable
- 10 – Not attempted due to environmental limitations
- 88 – Not attempted due to medical condition or safety concerns
- ^ – Skip pattern
- - – Not assessed/no information

(continued)

Table 8-6 (continued)
Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID: S025.05)ᵃ

Measure Specificationsᵇ

To obtain the discharge mobility score, use the following procedure
- If code is between 01 and 06, then use code as the value.
- If code is 07, 09, 10, or 88, then recode to 01 and use this code as the value.
- If the mobility item is skipped (^), dashed (-), or missing, recode to 01 and use this code as the value.

Sum the values of the discharge mobility items to create a discharge mobility score for each Medicare Part A SNF stay. Scores can range from 15 – 90, with a higher score indicating greater independence.

Numerator
The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only) in the denominator, except those that meet the exclusion criteria, with a discharge mobility score that is equal to or higher than the calculated expected discharge mobility score.

Denominator
The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only), except those that meet the exclusion criteria.

Exclusions
Medicare Part A SNF stays are excluded if:

1. The Medicare Part A SNF stay is an incomplete stay: Residents with incomplete stays (*incomplete = [1]*) are identified based on the following criteria using the specified data elements:
   a. Unplanned discharge, which would include discharge against medical advice, indicated by A0310G (Type of Discharge) = 2 (Unplanned discharge) [as indicated on an OBRA Discharge (RFA: A0310F = [10, 11]) that has a discharge date (A2000) that is on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
   OR
   b. Discharge to acute hospital, long-term care hospital, psychiatric hospital indicated by A2105 = [04, 05, 07]. [as indicated on an MDS Discharge (RFA: A0310F = [10, 11]) that has a discharge date (A2000) that is on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
   OR
   c. SNF PPS Part A stay less than 3 days ((A2400C minus A2400B) < 3 days)
   OR
   d. The resident died during the SNF stay (i.e., **Type 2 SNF Stays**). Type 2 SNF Stays are SNF stays with a PPS 5-Day Assessment (A0310B = [01]) and a matched Death in Facility Tracking Record (A0310F = [12]).

2. The resident has any of the following medical conditions at the time of admission (i.e., on the 5-Day PPS assessment):
   a. Coma, persistent vegetative state, complete tetraplegia, severe brain damage, locked-in syndrome, or severe anoxic brain damage, cerebral edema or compression of brain, as identified by: B0100 (Comatose) = 1 or ICD-10 codes (see **Appendix B,** *Table B-1*).

3. The resident is younger than age 18:
   a. A1600 (Entry Date) – A0900 (Birth Date) is less than 18 years.
   b. Age is calculated in years based on the truncated difference between entry date (A1600) and birth date (A0900); i.e., the difference is not rounded to the nearest whole number

(continued)

Table 8-6 (continued)
Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID: S025.05)[a]

Measure Specifications[b]

4. The resident is discharged to hospice or received hospice while a resident:
   a. A2105 (Discharge status) = [09, 10] or O0110K1b (Hospice while a Resident) = [1].
 	
5. The resident did not receive physical or occupational therapy services at the time of admission (i.e., on the 5- Day PPS assessment):
   a. (Sum of O0400B1 + O0400B2 + O0400B3 = [0]) and (sum of O0400C1 + O0400C2 + O0400C3=[0])

Covariates

Data for each covariate are derived from the admission assessment included in the target Medicare Part A SNF stays.
 	
  1. Age group
  2. Admission mobility – continuous form
  3. Admission mobility – squared form
  4. Primary medical condition category
  5. Interaction between primary medical condition category and admission mobility
  6. Prior surgery
  7. Prior functioning: indoor mobility (ambulation)
  8. Prior functioning: stairs
  9. Prior functioning: functional cognition
  10. Prior mobility device use
  11. Stage 2 pressure ulcer
  12. Stage 3, 4, or unstageable pressure ulcer/injury
  13. Cognitive abilities
  14. Communication impairment
  15. Urinary Continence
  16. Bowel Continence
  17. History of falls
  18. Tube feeding or total parenteral nutrition
  19. Comorbidities
 	
See covariate details in *__Table RA-5__* and *__Table RA-9__* in the associated Risk-Adjustment Appendix File**.**

[a] This measure was finalized for reporting by SNFs under the SNF QRP (Federal Register 82 (4 August 2017): 36530-36636).

[b] The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

Table 8-7
Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04)[a]

Measure Description
This measure estimates the risk-adjusted mean change in self-care score between admission and discharge for Medicare Part A SNF Stays.

Measure Specifications[b]

If a resident has multiple Medicare Part A SNF stays during the target 12 months, then all stays are included in this measure.

Self-Care items and Rating scale:
The Self-Care assessment items used for admission Self-Care score calculations are:

- GG0130A1. Eating
- GG0130B1. Oral hygiene
- GG0130C1. Toileting hygiene
- GG0130E1. Shower/bathe self
- GG0130F1. Upper body dressing
- GG0130G1. Lower body dressing
- GG0130H1. Putting on/taking off footwear

Valid codes and code definitions for the coding of the admission Self-Care items are:

- 06 – Independent
- 05 – Setup or clean-up assistance
- 04 – Supervision or touching assistance
- 03 – Partial/moderate assistance
- 02 – Substantial/maximal assistance
- 01 – Dependent
- 07 – Resident refused
- 09 – Not applicable
- 10 – Not attempted due to environmental limitations
- 88 – Not attempted due to medical condition or safety concerns
- - – Not assessed/no information

To obtain the admission self-care score, use the following procedure:

- If code is between 01 and 06, then use the code as the value.
- If code is 07, 09, 10, or 88, then recode to 01 and use this code as the value.
- If the self-care item is dashed (-) or missing, recode to 01 and use this code as the value.

Sum the values of the admission self-care items to create an admission self-care score for each stay-level record. Scores can range from 7 to 42, with a higher score indicating greater independence.

(continued)

Measure Specifications[b]

The Self-Care assessment items used for discharge Self-Care score calculations are:

- GG0130A3. Eating
- GG0130B3. Oral hygiene
- GG0130C3. Toileting hygiene
- GG0130E3. Shower/bathe self
- GG0130F3. Upper body dressing
- GG0130G3. Lower body dressing
- GG0130H3. Putting on/taking off footwear

Valid codes and code definitions for the coding of the discharge Self-Care items are:

- 06 – Independent
- 05 – Setup or clean-up assistance
- 04 – Supervision or touching assistance
- 03 – Partial/moderate assistance
- 02 – Substantial/maximal assistance
- 01 – Dependent
- 07 – Resident refused
- 09 – Not applicable
- 10 – Not attempted due to environmental limitations
- 88 – Not attempted due to medical condition or safety concerns
- ^ – Skip pattern
- - – Not assessed/no information

To obtain the discharge self-care score, use the following procedure:

- If code is between 01 and 06, then use code as the value.
- If code is 07, 09, 10, or 88, then recode to 01 and use this code as the value.
- If the self-care item is skipped (^), dashed (-), or missing, recode to 01 and use this code as the value.

Sum the values of the discharge self-care items to create a discharge self-care score for each stay-level record. Scores can range from 7 to 42, with a higher score indicating greater independence.

Numerator
The measure does not have a simple form for the numerator and denominator. This measure estimates the risk-adjusted change in self-care score between admission and discharge among Medicare Part A SNF stays, except those that meet the exclusion criteria. The change in self-care score is calculated as the difference between the discharge self-care score and the admission self-care score.

Denominator
The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only), except those that meet the exclusion criteria.

Exclusions
Medicare Part A SNF stays are excluded if:

(continued)

Table 8-7 (continued)
Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04)[a]

Measure Specifications[b]

1. The Medicare Part A SNF stay was an incomplete stay: Residents with incomplete stays (*incomplete = [1]*) are identified based on the following criteria using the specified data elements:
   a. Unplanned discharge, which would include discharge against medical advice, indicated by A0310G (Type of Discharge) = 2 (Unplanned discharge) [as indicated on an OBRA Discharge (RFA: A0310F = [10, 11]) that has a discharge date (A2000) that is on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
      OR
   b. Discharge to acute hospital, psychiatric hospital, long-term care hospital indicated by A2100 = [03, 04, 09]. [as indicated on an MDS Discharge (RFA: A0310F = [10, 11]) that has a discharge date (A2000) that is on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
      OR
   c. SNF PPS Part A stay less than 3 days ((A2400C minus A2400B) < 3 days)
      OR
   d. The resident died during the SNF stay (i.e., **Type 2 SNF Stays**). Type 2 SNF Stays are SNF stays with a PPS 5-Day Assessment (A0310B = [01]) and a matched Death in Facility Tracking Record (A0310F = [12]).

2. The resident is independent with all self-care activities at the time of admission (i.e., on the 5-Day PPS assessment):
   a. Items used to identify these resident records are as follows: Eating (Item GG0130A1), Oral hygiene (Item GG0130B1), Toileting hygiene (Item GG0130C1), Shower/Bathe self (Item GG0130E1), Upper body dressing (Item GG0130F1), Lower body dressing (Item GG0130G1), Putting on/taking off footwear (Item GG0130H1).
   b. All seven self-care items must = [6] on the 5-day PPS assessment for this exclusion to apply

3. The resident has any of the following medical conditions at the time of admission (i.e., on the 5-Day PPS assessment):
   a. Coma, persistent vegetative state, complete tetraplegia, locked-in syndrome, or severe anoxic brain damage, cerebral edema or compression of brain, as identified by: B0100 (Comatose) = 1 or ICD-10 codes (see **Appendix A**, *__Table A-4__* in the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual Version 4.0).[c]

4. The resident is younger than age 18:
   a. A1600 (Entry Date) – A0900 (Birth Date) is less than 18 years.
   b. Age is calculated in years based on the truncated difference between entry date (A1600) and birth date (A0900); i.e., the difference is not rounded to the nearest whole number

5. The resident is discharged to hospice or received hospice while a resident:
   a. A2100 (Discharge status) = [07] or O0100K2 (Hospice while a Resident) = [1].

6. The resident did not receive physical or occupational therapy services (i.e., on the 5-Day PPS assessment):
   a. (Sum of O0400B1 + O0400B2 + O0400B3 = [0]) and (sum of O0400C1 + O0400C2 + O0400C3 = [0])

(continued)

Table 8-7 (continued)
Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04)[a]

Covariates
Data for each covariate are derived from the admission assessment included in the target Medicare Part A SNF stays.   1. **Age group**   2. **Admission self-care – continuous form**   3. **Admission self-care – squared form**   4. **Primary medical condition category**   5. **Interaction between primary medical condition category and admission self-care**   6. **Prior surgery**   7. **Prior functioning: self-care**   8. **Prior functioning: indoor mobility (ambulation)**   9. **Prior mobility device use**   10. **Stage 2 pressure ulcer**   11. **Stage 3, 4, or unstageable pressure ulcer/injury**   12. **Cognitive abilities**   13. **Communication impairment**   14. **Urinary Continence**   15. **Bowel Continence**   16. **Tube feeding or total parenteral nutrition**   17. **Comorbidities**   See covariate details in **Appendix A**, _**Table A-4**_ in Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual Version 4.0 and the associated Risk-Adjustment Appendix File.[d, e]

[a] This measure was finalized for reporting by SNFs under the SNF QRP (Federal Register 82 (4 August 2017): 36530-36636).

[b] The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

[c, d] Refer to the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual Version 4.0 (https://www.cms.gov/files/document/snf-quality-measure-calculations-and-reporting-users-manual-v40.pdf).

[e] Refer to the Risk-Adjustment Appendix File for the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual 4.0 (https://www.cms.gov/files/document/risk-adjustment-appendix-file-snf-effective-10-1-2022.xlsx).

Table 8-8
Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04)[a]

Measure Description
This measure estimates the risk-adjusted mean change in mobility score between admission and discharge for Medicare Part A SNF Stays.

Measure Specifications[b]

If a resident has multiple Medicare Part A SNF stays during the target 12 months, then all stays are included in this measure.

Mobility items and Rating scale:
The Mobility assessment items used for admission Mobility score calculations are:

- GG0170A1. Roll left and right
- GG0170B1. Sit to lying
- GG0170C1. Lying to sitting on side of bed
- GG0170D1. Sit to stand
- GG0170E1. Chair/bed-to-chair transfer
- GG0170F1. Toilet transfer
- GG0170G1. Car transfer
- GG0170I1. Walk 10 feet
- GG0170J1. Walk 50 feet with two turns
- GG0170K1. Walk 150 feet
- GG0170L1. Walking 10 feet on uneven surfaces
- GG0170M1. 1 step (curb)
- GG0170N1. 4 steps
- GG0170O1. 12 steps.
- GG0170P1. Picking up object

Valid codes and code definitions for the coding of the admission Mobility items are:

- 06 – Independent
- 05 – Setup or clean-up assistance
- 04 – Supervision or touching assistance
- 03 – Partial/moderate assistance
- 02 – Substantial/maximal assistance
- 01 – Dependent
- 07 – Resident refused
- 09 – Not applicable
- 10 – Not attempted due to environmental limitations
- 88 – Not attempted due to medical condition or safety concerns
- ^ – Skip pattern: only valid for items GG0170J1 through GG0170L1; GG0170N1, GG0170O1
- - – Not assessed/no information

(continued)

Measure Specifications[b]
To obtain the admission mobility score, use the following procedure • If code is between 01 and 06, then use code as the value. • If code is 07, 09, 10, or 88, then recode to 01 and use this code as the value. • If the mobility item is skipped (^), dashed (-), or missing, recode to 01 and use this code as the value. Sum the values of the admission mobility items to create an admission mobility score for each Medicare Part A SNF stay. Scores can range from 15 – 90, with a higher score indicating greater independence. The Mobility assessment items used for discharge Mobility score calculations are: • GG0170A3. Roll left and right • GG0170B3. Sit to lying • GG0170C3. Lying to sitting on side of bed • GG0170D3. Sit to stand • GG0170E3. Chair/bed-to-chair transfer • GG0170F3. Toilet transfer • GG0170G3. Car transfer • GG0170I3. Walk 10 feet • GG0170J3. Walk 50 feet with two turns • GG0170K3. Walk 150 feet • GG0170L3. Walking 10 feet on uneven surfaces • GG0170M3. 1 step (curb) • GG0170N3 4 steps • GG0170O3 12 steps • GG0170P3. Picking up object Valid codes and code definitions for the coding of the discharge Mobility items are: • 06 – Independent • 05 – Setup or clean-up assistance • 04 – Supervision or touching assistance • 03 – Partial/moderate assistance • 02 – Substantial/maximal assistance • 01 – Dependent • 07 – Resident refused • 09 – Not applicable • 10 – Not attempted due to environmental limitations • 88 – Not attempted due to medical condition or safety concerns • ^ – Skip pattern • – – Not assessed/no information To obtain the discharge mobility score, use the following procedure: • If code is between 01 and 06, then use code as the value. • If code is 07, 09, 10, or 88, then recode to 01 and use this code as the value. • If the mobility item is skipped (^), dashed (-), or missing, recode to 01 and use this code as the value.

(continued)

Measure Specifications[b]

Sum the values of the discharge mobility items to create a discharge mobility score for each Medicare Part A SNF stay. Scores can range from 15 – 90, with a higher score indicating greater independence.

Numerator
The measure does not have a simple form for the numerator and denominator. This measure estimates the risk-adjusted change in mobility score between admission and discharge among Medicare Part A SNF stays, except those that meet the exclusion criteria. The change in mobility score is calculated as the difference between the discharge mobility score and the admission mobility score.

Denominator
The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only), except those that meet the exclusion criteria.

Exclusions
Medicare Part A SNF stays are excluded if:

1. The Medicare Part A SNF stay is an incomplete stay: Residents with incomplete stays (*incomplete = [1]*) are identified based on the following criteria using the specified data elements:
    a. Unplanned discharge, which would include discharge against medical advice, indicated by A0310G (Type of Discharge) = 2 (Unplanned discharge) [as indicated on an OBRA Discharge (RFA: A0310F = [10, 11]) that has a discharge date (A2000) that is on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
        OR
    b. Discharge to acute hospital, psychiatric hospital, long-term care hospital indicated by A2100 = [04, 09]. [as indicated on an MDS Discharge (RFA: A0310F = [10, 11]) that has a discharge date (A2000) that is on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
        OR
    c. SNF PPS Part A stay less than 3 days ((A2400C minus A2400B) < 3 days)
        OR
    d. The resident died during the SNF stay (i.e., **Type 2 SNF Stays**). Type 2 SNF Stays are SNF stays with a PPS 5-Day Assessment (A0310B = [01]) and a matched Death in Facility Tracking Record (A0310F = [12]).

2. The resident is independent on all mobility activities at the time of the admission (i.e., on the 5-Day PPS assessment): Items used to identify these resident records are as follows: Roll left and right (Item GG0170A1), Sit to lying (Item GG0170B1), Lying to sitting on side of bed (Item GG0170C1), Sit to stand (Item GG0170D1), Chair/bed-to-chair transfer (Item GG0170E1), Toilet transfer (Item GG0170F1), Car transfer (Item GG0170G1), Walk 10 feet (Item GG0170I1), Walk 50 feet with two turns (Item GG0170J1), Walk 150 feet (Item GG0170K1), Walking 10 feet on uneven surfaces (Item GG0170L1), 1 step (curb) (Item GG0170M1), 4 steps (Item GG0170N1), 12 steps (Item GG0170O1), Picking up object (GG0170P1).
    a. All fifteen mobility items must = [6] on the 5-day PPS assessment for this exclusion to apply.

3. The resident has any of the following medical conditions at the time of the admission (i.e., on the 5-Day PPS assessment):
    a. Coma, persistent vegetative state, complete tetraplegia, locked-in syndrome, or severe anoxic brain damage, cerebral edema or compression of brain, as identified by: B0100 (Comatose) = 1 or ICD-10 codes (see **Appendix A**, *Table A-4* in Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual Version 4.0).[c]

(continued)

Table 8-8 (continued)

Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04)[a]

Measure Specifications[b]

4. The resident is younger than age 18:
    a. A1600 (Entry Date) – A0900 (Birth Date) is less than 18 years.
    b. Age is calculated in years based on the truncated difference between entry date (A1600) and birth date (A0900); i.e., the difference is not rounded to the nearest whole number.

5. The resident is discharged to hospice or received hospice while a resident:
    a. A2100 (Discharge status) = [07] or O0100K2 (Hospice while a Resident) = [1].

6. The resident did not receive physical or occupational therapy services at the time of the admission (i.e., on the 5-Day PPS assessment):
    a. (Sum of O0400B1 + O0400B2 + O0400B3 = [0]) and (sum of O0400C1 + O0400C2 + O0400C3 = [0])

Covariates

Data for each covariate are derived from the admission assessment included in the target Medicare Part A SNF stays.

1. **Age group**
2. **Admission mobility – continuous form**
3. **Admission mobility – squared form**
4. **Primary medical condition category**
5. **Interaction between primary medical condition category and admission mobility**
6. **Prior surgery**
7. **Prior functioning: indoor mobility (ambulation)**
8. **Prior functioning: stairs**
9. **Prior functioning: functional cognition**
10. **Prior mobility device use**
11. **Stage 2 pressure ulcer**
12. **Stage 3, 4, or unstageable pressure ulcer/injury**
13. **Cognitive abilities**
14. **Communication impairment**
15. **Urinary Continence**
16. **Bowel Continence**
17. **History of falls**
18. **Tube feeding or total parenteral nutrition**
19. **Comorbidities**

See covariate details in **Appendix A**, *Table A-4* in Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual Version 4.0 and the associated Risk-Adjustment Appendix File.[d, e]

[a] This measure was finalized for reporting by SNFs under the SNF QRP (Federal Register 82 (4 August 2017): 36530-36636).

[b] The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

^{c, d} Refer to the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual Version 4.0 (https://www.cms.gov/files/document/snf-quality-measure-calculations-and-reporting-users-manual-v40.pdf).

^e Refer to the Risk-Adjustment Appendix File for the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual 4.0 (https://www.cms.gov/files/document/risk-adjustment-appendix-file-snf-effective-10-1-2022.xlsx).

Table 8-9
Transfer of Health (TOH) Information to the Provider Post-Acute Care (PAC) (CMS ID: S043.01)[a]

Measure Description
This measure reports the percentage of SNF stays indicating a current reconciled medication list was transferred to the subsequent provider at the time of discharge. For residents with multiple stays during the reporting period, each stay is eligible for inclusion in the measure.

Measure Specifications[b]
The measure is calculated by reviewing a resident's MDS items for provision of a current reconciled medication list to the subsequent provider at the time of discharge.

Numerator

The numerator is the number of stays (**Type 1 SNF Stays** only) for which the MDS 3.0 indicated that the following is true:

At the time of discharge, the facility provided a current reconciled medication list to the subsequent provider (A2121 = [1]).

Denominator

The denominator is the total number of SNF stays (**Type 1 SNF Stays** only) with a discharge date in the measure target period, ending in discharge to short-term general hospital, another SNF, intermediate care, home under care of an organized home health service organization or hospice, hospice in an institutional facility, a swing bed, an IRF, an LTCH, a Medicaid nursing facility, an inpatient psychiatric facility, or a critical access hospital. Discharge to one of these providers is based on response to the discharge item A2105, of the MDS assessment: (A2105 = [02, 03, 04, 05, 06, 07, 08, 09, 10, 11, 12] or (A0310F = [99] and A0310H = [1])).

Exclusions

There are no denominator exclusions for this measure.

Covariates
No covariates.

[a] This measure was finalized for reporting by SNFs under the SNF QRP (Federal Register 84 (7 August 2019): 38755-38762).

[b] The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

Table 8-10
Transfer of Health (TOH) Information to the Patient Post-Acute Care (PAC) (CMS ID: S044.01)

Measure Description
This measure reports the percentage of SNF stays indicating a current reconciled medication list was transferred to the resident, family, and/or caregiver at the time of discharge. For residents with multiple stays during the reporting period, each stay is eligible for inclusion in the measure.
Measure Specification
The measure is calculated by reviewing a resident's MDS discharge assessment items for provision of a current reconciled medication list to the resident, family, and/or caregiver at the time of discharge.

Numerator

The numerator is the number of SNF stays (**Type 1 SNF Stays** only) for which the MDS 3.0 indicated that the following is true:

At the time of discharge, the facility provided a current reconciled medication list to the resident, family, and/or caregiver (A2123 = [1]).

Denominator

The denominator is the total number of SNF stays (**Type 1 SNF Stays** only) with a discharge date in the measure target period, ending in discharge to Home (e.g., private home/apartment, board/care, assisted living, group home or transitional living or other residential care arrangements). Discharge to one of these locations is based on response to the discharge item A2105 of the MDS assessment: (A2105= [01, 99]).

Exclusions

There are no denominator exclusions for this measure.

Covariates
No covariates.

[a] This measure was finalized for reporting by SNFs under the SNF QRP (Federal Register 84 (7 August 2019): 38761-38764). An update to the denominator for the TOH to Patient measure was finalized in the SNF QRP (Federal Register 86 (4 August 2021) 42489-42491).

[b] The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

Table 8-11
Discharge Function Score (CMS ID: S042.01)[a]

Measure Description
This measure estimates the percentage of Medicare Part A SNF stays that meet or exceed an expected discharge function score.

Measure Specifications[b]

If a resident has multiple Medicare Part A SNF stays during the target 12 months, then all stays are included in this measure.

Function items and Rating scale:
The function assessment items used for discharge function score calculations are:
- GG0130A3. Eating
- GG0130B3. Oral hygiene
- GG0130C3. Toileting hygiene
- GG0170A3. Roll left and right
- GG0170C3. Lying to sitting on side of bed
- GG0170D3. Sit to stand
- GG0170E3. Chair/bed-to-chair transfer
- GG0170F3. Toilet transfer
- GG0170I3: Walk 10 Feet*
- GG0170J3: Walk 50 Feet with 2 Turns*
- GG0170R3. Wheel 50 feet with 2 Turns*

* Count Wheel 50 Feet with 2 Turns (GG0170R) value twice to calculate the total observed discharge function score for stays where (i) Walk 10 Feet (GG0170I) has an activity not attempted (ANA) code at both admission and discharge and (ii) either Wheel 50 Feet with 2 Turns (GG0170R) or Wheel 150 Feet (GG0170S) has a code between 1 and 6 at either at admission or at discharge. The remaining stays use Walk 10 Feet (GG0170I) + Walk 50 Feet with 2 Turns (GG0170J) to calculate the total observed discharge function score.
In either case, 10 items are used to calculate a resident's total observed discharge score and scores range from 10 – 60.

Valid codes and their definitions for the discharge function items are:
- 06 – Independent
- 05 – Setup or clean-up assistance
- 04 – Supervision or touching assistance
- 03 – Partial/moderate assistance
- 02 – Substantial/maximal assistance
- 01 – Dependent
- 07 – Resident refused
- 09 – Not applicable
- 10 – Not attempted due to environmental limitations
- 88 – Not attempted due to medical condition or safety concerns
- ^   – Skip pattern
- -   – Not assessed/no information

To obtain the discharge function score, use the following procedure:
- If code is between 01 and 06, use the code as the value.
- If code is 07, 09, 10, 88, dashed (-), then use statistical imputation to estimate the item value for that item and use this code as the value.
- If the item is skipped (^), dashed (-), or missing, then use statistical imputation to estimate the item value for that item and use this code as the value.

(continued)

Table 8-11 (continued)
Discharge Function Score (CMS ID: S042.01)[a]

Measure Specifications[b]

Sum the values of the discharge function items to calculate the observed discharge function score for each Medicare Part A SNF stay. Scores can range from 10 to 60, with a higher score indicating greater independence.

Statistical Imputation

To calculate the imputed values for items with NA codes, use the procedure below. (Note that these steps first describe imputing the value for a single item at discharge and then describe the relevant modifications for the other items.)

1. Start with Eating (GG0130A). For each SNF stay where the item has a NA code at discharge, calculate z, a continuous variable that represents a patient's underlying degree of independence on this item, using the imputation coefficients specific to the GG0130A discharge model:

    $$[1] \quad z = \gamma_1 x_1 + \ldots + \gamma_m x_m$$

    Where:

    * γ_1 through γ_m are the imputation regression coefficients for the covariates specific to the GG0130A discharge model (See Discharge Function Score Appendix File. Note that the coefficients used in this calculation do not include the thresholds described in Step 2.)
    * $x_1 - x_m$ are the imputation risk adjustors specific to the GG0130A discharge model.

2. Calculate the probability for each possible value, had the GG item been assessed, using z (Step 1) and the equations below.

    $$[2] \quad \Pr(z \le \alpha_1) = \Phi(\alpha_1 - z),$$
    $$\Pr(\alpha_1 < z \le \alpha_2) = \Phi(\alpha_2 - z) - \Phi(\alpha_1 - z),$$
    $$\Pr(\alpha_2 < z \le \alpha_3) = \Phi(\alpha_3 - z) - \Phi(\alpha_2 - z),$$
    $$\Pr(\alpha_3 < z \le \alpha_4) = \Phi(\alpha_4 - z) - \Phi(\alpha_3 - z),$$
    $$\Pr(\alpha_4 < z \le \alpha_5) = \Phi(\alpha_5 - z) - \Phi(\alpha_4 - z),$$
    $$\Pr(z > \alpha_5) = 1 - \Phi(\alpha_5 - z),$$

    Where:

    * $\Phi(.)$ is the standard normal cumulative distribution function.
    * $\alpha_1 \ldots \alpha_5$ represent thresholds of levels of independence that are used to assign a value of 1-6 based on z for the GG0130A discharge model (see Discharge Function Score Appendix File).

3. Compute the imputed value of the GG item using the six probabilities determined in Step 2 and the equation below.

    $$[3] \quad \textit{Imputed value of GG item} = \Pr(z \le \alpha_1) + 2 * \Pr(\alpha_1 < z \le \alpha_2) + 3 * \Pr(\alpha_2 < z \le \alpha_3) + 4 * \Pr(\alpha_3 < z \le \alpha_4) + 5 * \Pr(\alpha_4 < z \le \alpha_5) + 6 * \Pr(z > \alpha_5)$$

4. Repeat Steps 1-3 to calculate imputed values for each GG item included in the observed discharge function score that was coded as NA, replacing the Eating (GG0130A) item with each applicable GG item.

Table 8-11 (continued)
Discharge Function Score (CMS ID: S042.01)ᵃ

Measure Specificationsᵇ

See *Table IA-1*, *Table IA-2*, and *Table IA-3* in the associated Discharge Function Score Imputation Appendix File for the imputation coefficients and thresholds, as well as detailed MDS coding for each risk adjustor.[37] The imputation coefficients and thresholds for each GG item are values obtained through ordered probit model analyses of all eligible Medicare Part A SNF stays where the item value is not missing (i.e., had a value 01-06) at discharge, and covariates include the predictors used in risk adjustment and values on all GG items available in MDS. The admission function values are included in the covariates and calculated using the same procedure as the observed discharge function scores, including the replacement of NA codes with imputed values.[38] Please note that the iQIES QM and Provider Preview Reports use fixed regression coefficients and thresholds based on the target period in *Table IA-1*, *Table IA-2*, and *Table IA-3* in the Discharge Function Score Imputation Appendix File.

Numerator
The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only) in the denominator, except those that meet the exclusion criteria, with an observed discharge function score that is equal to or greater than the calculated expected discharge function score.

Denominator
The total number of Medicare Part A SNF stays (**Type 1 SNF Stays** only), except those that meet the exclusion criteria.

Exclusions
Medicare Part A SNF stays are excluded if:

1. The Medicare Part A SNF stay is an incomplete stay: Residents with incomplete stays (*incomplete = [1]*) are identified based on the following criteria using the specified data elements:
   a. Unplanned discharge, which includes discharge against medical advice, indicated by A0310G (Type of Discharge) = 2 (Unplanned discharge) [as indicated on an OBRA Discharge (RFA: A0310F = [10, 11]) that has a discharge date (A2000) on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
      OR
   b. Discharge to acute hospital, psychiatric hospital, long-term care hospital indicated by A2100 = [03, 04, 09]. [as indicated on an MDS Discharge (RFA: A0310F = [10, 11]) that has a discharge date (A2000) that is on the same day or the day after the End Date of Most Recent Medicare Stay (A2400C)].
      OR
   c. SNF PPS Part A stay less than 3 days ((A2400C minus A2400B) < 3 days)
      OR
   d. The resident died during the SNF stay (i.e., **Type 2 SNF Stays**). Type 2 SNF Stays are SNF stays with a PPS 5-Day Assessment (A0310B = [01]) and a matched Death in Facility Tracking Record (A0310F = [12]).

2. The resident has any of the following medical conditions at the time of admission (i.e., on the 5-Day PPS assessment):
   a. Coma, persistent vegetative state, complete tetraplegia, severe brain damage, locked-in syndrome, or severe anoxic brain damage, cerebral edema or compression of brain, as identified by: B0100 (Comatose) = 1 or ICD-10 codes (see **Appendix B**, *Table B-1*).

(continued)

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[37] The imputation coefficient and threshold values have been rounded to four decimal places. When applying these values to the equation to calculate imputed item values, these coefficient and threshold values should be used; do not round to fewer than four decimal places. This is to ensure consistency and accuracy of measure calculations.

[38] To calculate imputed values for GG items at admission, repeat Steps 1-4, replacing the word "discharge" with the word "admission."

Table 8-11 (continued)
Discharge Function Score (CMS ID: S042.01)[a]

Measure Specifications[b]

3. The resident is younger than age 18:
   a. A1600 (Entry Date) – A0900 (Birth Date) is less than 18 years.
   b. Age is calculated in years based on the truncated difference between entry date (A1600) and birth date (A0900); i.e., the difference is not rounded to the nearest whole number

4. The resident is discharged to hospice or received hospice while a resident:
   a. A2105 (Discharge status) = [09, 10] or O0110K1b (Hospice while a Resident) = [1].

5. The resident did not receive physical or occupational therapy services at the time of admission (i.e., on the 5- Day PPS assessment):
   a. (Sum of O0400B1 + O0400B2 + O0400B3 = [0]) and (sum of O0400C1 + O0400C2 + O0400C3= [0])

Covariates

Data for each covariate are derived from the admission assessment included in the target Medicare Part A SNF Stays.

1. **Age group**
2. **Admission function – continuous form[c]**
3. **Admission function – squared form[c]**
4. **Primary medical condition category**
5. **Interaction between admission function and primary medical condition category**
6. **Prior surgery**
7. **Prior functioning: self-care**
8. **Prior functioning: indoor mobility (ambulation)**
9. **Prior functioning: stairs**
10. **Prior functioning: functional cognition**
11. **Prior mobility device use**
12. **Stage 2 pressure ulcer/injury**
13. **Stage 3, 4, or unstageable pressure ulcer/injury**
14. **Cognitive abilities**
15. **Communication impairment**
16. **Urinary Continence**
17. **Bowel Continence**
18. **History of falls**
19. **Nutritional approaches**
20. **High BMI**
21. **Low BMI**
22. **Comorbidities**

See covariate details in ***Table RA-5*** and ***Table RA-10*** in the associated Risk-Adjustment Appendix File**.**

[a] This measure is finalized for reporting by SNFs under the SNF QRP (Federal Register 88 (7 August 2023): 53233-53243).

[b] The national average observed score is calculated using the Medicare Part A SNF stay as the unit of analysis.

[c] Admission function score is the sum of admission values for function items included in the discharge score. NAs coded on admission items are treated the same way as NAs coded on discharge items, with NAs replaced with imputed values. Walking items and wheeling item are used in the same manner as in the discharge score.

Appendix A
Measure Specification History

Appendix A provides the following information:

- Tables detailing the effective dates corresponding to each CMS ID update for all SNF QRP quality measures, and the effective dates corresponding to each manual/addendum version (Section A.1).

Section A.1 CMS ID Update and Manual Version History Tables

This section contains tables detailing the effective dates corresponding to each CMS ID update for all SNF QRP quality measures (*Table A-1*), and the effective dates corresponding to each manual/addendum version (*Table A-2*).

Table A-1
Effective Dates by CMS ID Update for all SNF QRP Quality Measures

Quality Measure	Measure ID Update				
	.01	.02	.03	.04	.05
NHSN Measures					
COVID-19 Vaccination Coverage among Healthcare Personnel (CMS ID: S040.02)	Inception – 09/30/2023	10/01/2023 – Present	—	—	—
Influenza Vaccination Coverage among Healthcare Personnel (CMS ID: S041.01)	Inception – Present	—	—	—	—
Medicare Claims-based Measures					
Potentially Preventable 30-Day Post-Discharge Readmission Measure for Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S004.01)	Inception – Present	—	—	—	—
Discharge to Community (DTC)—Post Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S005.02)	Inception – 09/30/2020	10/1/2020 – Present	—	—	—
Medicare Spending Per Beneficiary (MSPB)—Post Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S006.01)	Inception – Present	—	—	—	—
SNF Healthcare-Associated Infections (HAI) Requiring Hospitalization (CMS ID: S039.01)	Inception – Present	—	—	—	—

(continued)

Quality Measure	Measure ID Update				
	.01	**.02**	**.03**	**.04**	**.05**
Assessment-based Measures					
Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (CMS ID: S013.02)	Inception – 09/30/2019	10/01/2019 – Present	—	—	—
Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (CMS ID: S001.03)	Inception – 09/30/2018	10/01/2018 – 09/30/2019	10/01/2019 – Present	—	—
Drug Regimen Review Conducted With Follow-Up for Identified Issues–Post-Acute Care (PAC) Skilled Nursing Facility (SNF) Quality Reporting Program (QRP) (CMS ID: S007.02)	Inception – 09/30/2019	10/01/2019 – Present	—	—	—
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: S038.02)	Inception – 09/30/2019	10/01/2019 – Present	—	—	—
Application of IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (CMS ID: S024.05)	Inception – 09/30/2019	10/01/2019 – 09/30/2020	10/01/2020 – 09/30/2022	10/01/2022 – 09/30/2023	10/01/2023 – Present
Application of IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (CMS ID:S025.05)	Inception – 09/30/2019	10/01/2019 – 09/30/2020	10/01/2020 – 09/30/2022	10/01/2022 – 09/30/2023	10/01/2023 – Present
Application of the IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (CMS ID: S022.04)	Inception – 09/30/2019	10/01/2019 – 09/30/2020	10/01/2020 – 09/30/2022	10/01/2022 – 09/30/2023	—
Application of IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (CMS ID: S023.04)	Inception – 09/30/2019	10/01/2019 – 09/30/2020	10/01/2020 – 09/30/2022	10/01/2022 – 09/30/2023	—
Transfer of Health (TOH) Information to the Provider – Post Acute Care (PAC) (CMS ID: S043.01)	Inception – Present	—	—	—	—
Transfer of Health (TOH) Information to the Patient – Post Acute Care (PAC) (CMS ID: S044.01)	Inception – Present	—	—	—	—
Discharge Function Score (CMS ID: S042.01)	Inception – Present	—	—	—	—

Table A-2
Effective Dates of SNF Quality Manual Versions

Manual Version	Effective Dates
Manual V1.0	05/22/2017 – 09/30/2018
Manual V2.0	10/01/2018 – 09/30/2019
Manual V3.0	10/01/2019 – 09/30/2020
Addendum V3.0.1	10/01/2020 – 09/30/2022
Manual V4.0	10/01/2022 – 09/30/2023
Manual V5.0	10/01/2023 – Present

Appendix B
Risk-Adjustment and Imputation Appendix Files

Appendix B provides the following information:

- Overview of the Risk-Adjustment Appendix File for the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual (Risk-Adjustment Appendix File) (Section B.1).

- Procedure on how to use the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual and the associated Risk-Adjustment Appendix File information to apply intercept and coefficient values for measure calculations (Section B.2).

- Table listing the ICD-10-CM codes used to calculate Primary Medical Condition Category (I0020B) and Active Diagnosis in the Last 7 days (I8000A through I8000J) for the functional outcome measures (Section B.3).

- Overview of the Discharge Function Score Imputation Appendix File for the Skilled Nursing Facility Hospital Quality Reporting Program Measure Calculations and Reporting User's Manual (Discharge Function Score Imputation Appendix File) (Section B.4).

- Procedure on how to use the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual and the associated Discharge Function Score Imputation Appendix File information to apply model threshold and coefficient values for calculating statistically imputed values for GG items with missing codes, for use in Discharge Function Score measure calculations (Section B.5).

Section B.1 Risk-Adjustment Appendix File Overview

The intercept and coefficient values for each of the covariates used in assessment-based quality measures requiring risk-adjustment are available in the Risk-Adjustment Appendix File, which can be accessed on the [SNF Quality Reporting Measures Information website](). This Risk-Adjustment Appendix File, which is used alongside this appendix, contains current and historical intercept and coefficient values, the risk-adjustment schedule including applicable discharge dates for each update to the intercept and coefficient values, and covariate definitions.

Excel Worksheets in the Risk-Adjustment Appendix File:

Overview*:* Brief description of the document and its content.

Schedule*:* The risk-adjustment schedule for each quality measure.

- *Quality Measure Name*: Full measure name as referenced throughout the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual V5.0.

- *Measure Reference Name:* Abbreviated name for the quality measure.

- *Risk-Adjustment Update ID:* Number assigned to the initial and subsequent updates of the coefficient and intercept values for a unique risk-adjusted quality measure.

- *QM User's Manual Specification Version:* Number assigned to the initial and subsequent versions of the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual, located on the title page.

- *QM User's Manual Specification Posting Date:* Month and year of the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual posting on the SNF Quality Reporting Measures Information website.

- *Measure Calculation Application Dates:* Discharge dates associated with the intercept and coefficient values for each Risk-Adjustment Update ID.

National Average: This tab provides a national average observed score for each Risk-Adjustment Update ID to be used for applicable risk-adjusted quality measures. Values are provided because there is limited public accessibility to national assessment data. Please note that, depending on the reporting period and time of calculation, the national average observed score used in the iQIES QM Reports, Provider Preview Reports, and on public display on the Compare Website may vary from the national average observed score provided by the Risk-Adjustment Appendix File.

Quality Measure Specific Covariate Definition Tabs: Lists each covariate and its coding definition. Note that information on these tabs were previously included as covariate definition tables in Appendix A of this manual.

Quality Measure Specific Coefficient Tabs: Lists each covariate and its associated coefficient value for each risk-adjustment update ID.

Section B.2 Risk-Adjustment Procedure

Below is the procedure on how to use the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual and the associated Risk-Adjustment Appendix File information to apply intercept and coefficients values to calculate the risk-adjusted scores. Steps to calculate the risk-adjusted quality measures may vary by each measure. The following procedure contains the general steps:

1. Utilize the record selection guidance as listed in **Chapter 4** Record Selection for Assessment-Based (MDS) Quality Measures in this manual.

2. Follow the guidance for the version or versions of the MDS applicable to the assessment dates (based on discharge date) required for your calculation found in **Chapter 5, Section 5.3**: Measure Calculations During the Transition from MDS 3.0 V1.17.2 to MDS 3.0 V1.18.11.

3. Use the specific calculation steps provided in **Chapter 7** Calculations for Assessment-Based (MDS) Measures That Are Risk-Adjusted.

    a. Refer to the covariate definition table for the applicable quality measure in the **Risk-Adjustment Appendix File** on details to calculate the covariates for each quality measure.

4. Refer to the **Risk-Adjustment Appendix File**, Overview tab, for information on how to apply intercept and coefficient values to measure calculations. Under the Schedule tab, refer to the QM User's Manual Specification Version relevant to the timeframe for which you want to calculate the measure.

5. Use the column "Measure Calculation Application Dates" to select the applicable discharge dates then identify the Risk-Adjustment Update ID associated with those discharge dates.

6. Select the coefficients tab corresponding to the applicable quality measure, and then use the applicable Risk-Adjustment Values Update ID column. Apply the intercept and coefficient values for each covariate.

    a. For quality measures using the national average observed score in the measure calculation, select the National Average tab and use the national average observed score that corresponds to the Risk-Adjustment Values Update ID column used.

Example (Steps 3-5): Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury

- MDS record had a discharge date of 06/15/2019

- In the Schedule tab of the **Risk-Adjustment Appendix File**, refer to the Pressure Ulcer measure.

    o The discharge date of 06/15/2019 is within the discharge date range for Risk-Adjustment Update ID 1 (10/01/2018– 09/30/2019). Therefore, the user should use the information provided in the Risk-Adjustment ID 1 column.

- Select the Pressure Ulcer tab and apply the intercept and coefficient values in the Risk-Adjustment ID 1 column for each covariate.

- Select the National Average tab and use the Risk-Adjustment Update ID 1 column for the Pressure Ulcer national average observed score.

Section B.3 Etiologic Diagnosis or Comorbid Conditions

This section contains ICD-10-CM codes used to calculate Primary Medical Condition Category (I0020B) and Active Diagnosis in the Last 7 days (I8000A through I8000J) for the functional outcome measures.

Table B-1
Primary Medical Condition Category (I0020B) and Active Diagnosis in the Last 7 days (I8000A through I8000J) – ICD-10-CM Codes

Primary Medical Condition Category (Item I0020B and I8000A through I8000J)	ICD-10-CM Codes			
Severe brain damage	G93.9 S06A1XA S06A1XD S06A1XS			
Complete and severe tetraplegia	G82.51, G82.52, G82.53, S14.111A, S14.111D, S14.111S, S14.112A, S14.112D, S14.112S,	S14.113A, S14.113D, S14.113S, S14.114A, S14.114D, S14.114S, S14.115A, S14.115D,	S14.115S, S14.116A, S14.116D, S14.116S, S14.117A, S14.117D, S14.117S,	S14.118A, S14.118D, S14.118S, S14.119A, S14.119D, S14.119S
Locked-in state	G83.5			
Severe anoxic brain damage, edema or compression	G93.1, G93.5, G93.6			

Section B.4 Discharge Function Score Imputation Appendix File Overview

The model thresholds and coefficient values for each of the covariates used in the imputation models for the Discharge Function Score measure are available in the Discharge Function Score Imputation Appendix File, which can be accessed on the SNF Quality Reporting Measures Information website. This Discharge Function Score Imputation Appendix File, which is used alongside this appendix, contains model thresholds and coefficient values, the imputation schedule including applicable discharge dates for each update to the model threshold and coefficient values, and covariate definitions.

Excel Worksheets in the Discharge Function Score Imputation Appendix File:
Overview: Brief description of the document and its content.

<u>Schedule</u>: The imputation schedule for the Discharge Function Score measure.
- *Quality Measure Name*: Full measure name as referenced throughout the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual V5.0.

- *Measure Reference Name:* Abbreviated name for the Discharge Function Score measure.

- *Imputation Update ID:* Number assigned to the initial and subsequent updates of the coefficient and model threshold values for the Discharge Function Score measure.

- *QM User's Manual Specification Version:* Number assigned to the initial and subsequent versions of the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual, located on the title page.

- *QM User's Manual Specification Posting Date:* Month and year of the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual posting on the SNF Quality Reporting Measures Information website.

- *Measure Calculation Application Dates:* Discharge dates associated with the model threshold and coefficient values for each Imputation Update ID.

<u>Covariate Definitions Tab</u>: Lists the model thresholds and each covariate and its coding definition, and indicates thresholds and covariates used in each of the imputation models.

<u>Coefficients – Admission Tab</u>: Lists each model threshold value and each covariate and its associated coefficient value associated with each Imputation Update ID, for each GG admission item imputation model.

<u>Coefficients – Discharge Tab</u>: Lists each model threshold value and each covariate and its associated coefficient value associated with each Imputation Update ID, for each GG discharge item imputation model.

Section B.5 Discharge Function Score Imputation Procedure

Below is the procedure for how to use the Skilled Nursing Facility Quality Reporting Program Measure Calculations and Reporting User's Manual and the associated Discharge Function Score Imputation Appendix File information to apply coefficient and model threshold values to calculate the statistically imputed item value. The following procedure contains the general steps:

1. Use the specific calculation steps of Step #2.1 provided in **Section 7.7**: Discharge Function Score of Chapter 7 Measure Calculations for Assessment-Based Quality Measures (MDS).

    a. Refer to the covariate definition table in the **Discharge Function Score Imputation Appendix File** for details to calculate the covariates.

2. Refer to the **Discharge Function Score Imputation Appendix File**, Overview tab, for

information on how to apply coefficient and model threshold values to imputation calculations. Under the Schedule tab, refer to the QM User's Manual Specification Version relevant to the timeframe for which you want to calculate the measure.

3. Use the column "Measure Calculation Application Dates" to select the applicable discharge dates then identify the Imputation Update ID associated with those discharge dates.

4. Select the coefficients tab corresponding to the GG item model (Admission/Discharge) and Update ID, and then use the applicable Imputation Values GG item model column. Apply the coefficient values for each covariate and the model threshold values.

Example (Steps 2–4):

- MDS assessment had a discharge date of 06/15/2023 and a "Not Attempted" value coded for GG0130A1 (Eating at Admission).

- In the Schedule tab of the **Discharge Function Score Imputation Appendix File**, refer to the Discharge Function Score measure.

    o The discharge date of 06/15/2023 is within the discharge date range for Imputation Update ID 1 (10/01/2022-09/30/2023). Therefore, the user should use the information provided in the Imputation Update ID 1 column.

- Select the Coefficients – Admissions tab and apply the coefficient values for each covariate and the model threshold values in the Imputation Update ID 1, GG0130A1 column.