Inpatient Rehabilitation Facility Quality Reporting Program Measure Calculations and Reporting User's Manual

Version 4.0

Current as of October 1, 2022

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INPATIENT REHABILITATION FACILITY QUALITY REPORTING PROGRAM MEASURE CALCULATIONS AND REPORTING USER'S MANUAL

VERSION 4.0

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Chapter 1
Inpatient Rehabilitation 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) Inpatient Rehabilitation Facility (IRF) Quality Reporting Program (QRP). 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.[1] 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 IRF QRP and additional information pertaining to public reporting is publicly available and can be accessed through the [IRF QRP website](#).

Section 1.1: Organization

This manual is organized by seven chapters and one appendix. The remainder of this section provides information on the contents of each chapter and an overview of the appendix. **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 remaining chapters are organized by quality measure and provide detailed information about measure specifications 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 claims-based measures, respectively. The quality measures that rely on IRF-Patient Assessment Instrument (PAI) are presented in **Chapter 4,** and record selection criteria are explained for each measure. **Chapter 5** describes the two Internet Quality Improvement and Evaluation System (iQIES) data reports for the IRF-PAI 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 patient-level data. The iQIES QM Reports are comprised of two report types, one containing facility-level measure information and a second that includes patient-level data for a selected reporting period. 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. The chapter concludes with the transition from IRF-PAI v3.0 to IRF-PAI v4.0 and introduction of the Transfer of Health Information (TOH) quality measures. Data collection for IRF-PAI v4.0 begins on October 1, 2022 and will impact certain quality measure specifications. **Chapter 6** presents the measure calculation methodology specific to the IRF-PAI quality measures, and **Chapter 7** provides the

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[1] Centers for Medicare & Medicaid Services. (December 2021). Quality Measures. Accessed in January, 2022. Available at: https://www.cms.gov/Medicare/Quality-Initiatives-Patient-Assessment-Instruments/QualityMeasures/index.

measure logical specifications for each of the quality measures within the IRF-PAI, in table format. Lastly, Appendix A, and the associated Risk Adjustment Appendix File include the intercept and covariate coefficients values that are used to calculate the assessment-based (IRF-PAI) risk-adjusted measures.

Section 1.2: IRF Stay Definitions

IRF Stay-level Assessment: An IRF-PAI record is submitted when a patient is discharged from the IRF and includes both admission and discharge data.

IRF Stay: Note that IRF-PAI data are submitted for Medicare Part A and Medicare Advantage patients only. An IRF stay includes consecutive time in the facility starting with a patient's admission date (Item 12) through the patient's discharge date (Item 40) and is inclusive of interrupted stay days. An interrupted IRF stay is defined as those cases in which a Medicare beneficiary is discharged from the IRF and returns to the same IRF within 3 consecutive calendar days. The three consecutive calendar days begin with the day of the discharge from the IRF and ends on midnight of the third day. Definitions for incomplete and complete IRF stays are specific to the function measures and are addressed in Section 1.3

Target Date: The target date for an IRF-PAI record is the discharge date (Item 40). The target date is used to select the IRF stay-level sample for a measure and to determine the sort order for individual patients' assessments included in the target period. The target period for the IRF QRP assessment-based QMs is described in Section 4.1.

Target Period: The span of time that defines the Quality Measure Reporting Period for a given measure (e.g., a 12-month period (4 quarters)). The target period and methodology for selecting the stay-level sample for the IRF QRP assessment-based QMs is described in Section 4.1.

Section 1.3: Measure-Specific Definitions

The methodology for selecting the stay samples for the following function measures includes identifying complete versus incomplete IRF stays, described in detail below:

- Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (NQF #2631[2]) (CMS ID: I008.02)

- Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05)

- Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.05)

- IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633) (CMS ID: I009.05)

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[2] The Application of Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function measure (I008.02) is an application of measure L009.03 and is not NQF endorsed

- IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05)

- **Incomplete IRF Stay:** We refer readers to **Chapter 6** to review the measure specifications to determine what is considered an incomplete stay for each measure, as applicable. In general, incomplete IRF stays occur when a patient:
  - o is discharged to an acute care setting resulting in the patient's absence from the IRF for longer than 3 calendar days (e.g., Short-term General Hospital, Long-Term Care Hospital, Inpatient Psychiatric Facility, or Critical Access Hospital (Item 44D)); **or**
  - o dies while in the facility (Item 44C); **or**
  - o is discharged against medical advice (Item 41); **or**
  - o has a stay less than three days (Item 12, Item 40).

- **Complete IRF Stay:** All IRF stays not meeting the above criteria for incomplete stays will be considered complete IRF stays.

Table 1-1 below provides a list of the assessment-based measures included in the IRF QRP and the corresponding reference name for each measure.

Table 1-1
IRF Assessment-Based Quality Measure (IRF-PAI) NQF Number, CMS ID, and Measure Reference Name Crosswalk

Quality Measure	NQF #	CMS ID	Measure Reference
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury	n/a	I022.01	Pressure Ulcer/Injury
Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay)	0674[3]	I013.01	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	2631[4]	I008.02	Application of Functional Assessment
IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients	2633	I009.05	Change in Self-Care
IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients	2634	I010.05	Change in Mobility

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[3] This measure is NQF-endorsed for long-stay residents in nursing homes (http://www.qualityforum.org/QPS/0674), An application of this quality measure was finalized for reporting by IRFs under the IRF QRP (*Federal Register* 80 (6 August 2015): 47096-47100). The use of the words "resident" and "Long Stay" in the title of this measure refers to the use of this measure in the SNF/NH setting. CMS' use of these words does not imply that the IRF patient is a "resident" or that a stay in an IRF is a "long stay".

[4] This measure (I008.02) is an application of the Percent of Long-Term Care Hospital (LTCH) Patients With an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function measure (L009.03) and is not NQF endorsed.

Quality Measure	NQF #	CMS ID	Measure Reference
IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients	2635	I011.05	Discharge Self-Care Score
IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients	2636	I012.05	Discharge Mobility Score
Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF QRP	n/a	I021.01	DRR
Transfer of Health Information to Provider – Post Acute Care (PAC)	n/a	I024.01	TOH-Provider
Transfer of Health Information to Patient – Post Acute Care (PAC)	n/a	I025.02	TOH-Patient

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 can be found in the FY 2017 IRF PPS final rule. Below are the CDC NHSN quality measures included in the IRF QRP as of October 1, 2022 and hyperlinks that provide detailed information about each 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:

National Healthcare Safety Network (NHSN) Catheter-associated Urinary Tract Infection (CAUTI) Outcome Measure (NQF #0138) (CMS ID: I006.01)

- This measure calculates the total number of healthcare-associated CAUTI among patients in bedded inpatient care locations, from the total number of indwelling urinary catheter days for each location under surveillance for CAUTI during the associated data period. This measure is risk-adjusted.

    o CDC NHSN: CAUTI

National Healthcare Safety Network (NHSN) Facility-wide Inpatient Hospital-onset *Clostridium difficile* Infection (CDI) Outcome Measure (NQF #1717) (CMS ID: I015.01)

- This measure calculates the total number of observed hospital-onset CDI Laboratory Identified (LabID) events among all inpatients in the facility, excluding well baby-nurseries and NICUs, from the total number of expected hospital-onset CDI LabID events determined through the facility's number of inpatient days, bed size, affiliation with a medical school, microbiological test used to identify *C. difficile*, and community onset CDI admission prevalence rate.

    o CDC NHSN: CDI

National Healthcare Safety Network (NHSN) Influenza Vaccination Coverage Among Healthcare Personnel (NQF #0431) (CMS ID: I016.01)

- 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.

    o CDC NHSN: HCP Influenza Vaccine

National Healthcare Safety Network (NHSN) COVID-19 Vaccination Coverage among Healthcare Personnel (CMS ID: I023.01)

- This measure identifies the percentage of HCP eligible to work in the IRF setting for at least one day during the reporting period who receive a complete COVID-19 vaccination course, regardless of clinical responsibility or patient contact.

  o CDC NHSN: HCP COVID-19 Vaccine

Chapter 3
Medicare Claims-Based Measures

CMS uses 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 (FFS) patients. Each measure is calculated using unique specifications and methodologies. Information regarding measure specifications and reporting details is publicly available and can be accessed on the IRF Quality Reporting Measures Information website. Below are the Medicare claims-based measures included in the IRF QRP as of October 1, 2022 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:

Potentially Preventable 30-Day Post-Discharge Readmission Measure for Inpatient Rehabilitation Facility Quality Reporting Program (CMS ID: I017.01)

- This measure estimates the risk-standardized rate of unplanned, potentially preventable readmissions for patients (Medicare FFS beneficiaries) who receive services in inpatient rehabilitation facilities (IRFs).
  - o Medicare Claims-Based: Potentially Preventable Readmissions

Potentially Preventable Within Stay Readmission Measure for Inpatient Rehabilitation Facilities (CMS ID: I018.01)

- This measure assesses potentially preventable readmissions during the IRF stay. The definition for this measure was developed concurrently with the post-discharge readmission measures and measures the risk-standardized rate of unplanned, potentially preventable readmissions for patients (Medicare FFS beneficiaries) who receive services in inpatient rehabilitation facilities (IRFs).
  - o Medicare Claims-Based: Potentially Preventable Within Stay Readmission

Discharge to Community-Post Acute Care (PAC) Inpatient Rehabilitation Facility (IRF) Quality Reporting Program (ORP) (NOF #3479) (CMS ID: I019.02)

- This measure reports an IRF's risk-standardized rate of Medicare FFS patients who are discharged to the community following an IRF stay, do not have an unplanned readmission to an acute care hospital or LTCH in the 31 days following discharge to community, and 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. An additional measure denominator exclusion was finalized in the FY 2020 IRF PPS final rule to exclude IRF stays for baseline nursing facility (NF) residents. Baseline NF residents are defined as patients who had a long-term NF stay in the 180 days preceding their hospitalization and IRF stay, with no intervening community discharge between the long-term NF stay and qualifying hospitalization for measure inclusion.
  - o Medicare Claims-Based: Discharge to Community-Post Acute Care

Medicare Spending Per Beneficiary-Post Acute Care (PAC) Inpatient Rehabilitation Facility (IRF) Quality Reporting Program (ORP) (CMS ID: I020.01)

- This measure evaluates IRF providers' resource use relative to the resource use of the national median IRF provider. Specifically, the measure assesses the cost to Medicare for services performed by the IRF provider during an MSPB-PAC IRF episode. The measure is calculated as the ratio of the price-standardized, risk-adjusted MSPB-PAC amount for each IRF divided by the episode-weighted median MSPB-PAC amount across all IRF providers.
    - Medicare Claims-Based: Medicare Spending Per Beneficiary

Chapter 4
IRF Stay Selection for Assessment-Based (IRF-PAI) Quality Measures

Section 4.1: Quality Measures Based on the Calendar Year

This section presents the **stay selection** criteria for assessment-based (IRF-PAI) quality measure calculations whose **target period is 12 months (four quarters).** Table 4-1 lists the measures and their respective target periods. Apply the respective quality measure calculations from **Chapter 6** to the eligible target period IRF stays. Additionally, **Chapter 7** provides the instructions in table format, and the references to the table numbers are included below.

Quality measures included in this section:

- Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: I022.01) *Table 7-1*

- Application of Percent of Residents Experiencing One or More Falls with Major Injury (NQF #0674) (CMS ID: I013.01) *Table 7-2*

- Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (NQF #2631) (CMS ID: I008.02) *Table 7-3*

- IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633) (CMS ID: I009.05) *Table 7-4*

- IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05) *Table 7-5*

- IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05) *Table 7-6*

- IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.05) *Table 7-7*

- Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF QRP (CMS ID: I021.01) *Table 7-8*

- Transfer of Health Information to Provider – Post Acute Care (PAC) (CMS ID: I024.01) *Table 7-9*

- Transfer of Health Information to Patient – Post Acute Care (PAC) (CMS ID: I025.02) *Table 7-10*

The eligible IRF stays for these quality measures are selected as follows:

1. Select all IRF stays with a target date (discharge date (Item 40)) within the data target period. These are the *target period IRF stays*.

2. Sort the IRF stays according to the following:

- Provider Internal ID.

- Patient Internal ID

- Admission Date (ascending)

- Discharge Date (descending)

- Correction Number (descending)

- IRF Assessment ID (descending)

3. For each unique admission date, select the first record to eliminate duplicates.

4. If any IRF stays for the same Provider Internal ID and Patient Internal ID are overlapping by more than one day (i.e., the admission date of a subsequent assessment is earlier than the discharge date of the prior assessment), remove both stays.

5. If a patient has multiple eligible IRF stays with a discharge date within the target period, then include each eligible stay in the measure.

Table 4-1
Target Period for all Assessment-Based (IRF-PAI) Quality Measures

Quality Measure	Target Period [a]
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: I022.01)	January 1 through December 31
Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (NQF 0674) (CMS ID: I013.01)	January 1 through December 31
Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (NQF #2631) (CMS ID: I008.02)	January 1 through December 31
IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633) (CMS ID: I009.05)	January 1 through December 31
IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05)	January 1 through December 31
IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05)	January 1 through December 31
IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.05)	January 1 through December 31
Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF QRP (CMS ID: I021.01)	January 1 through December 31
Transfer of Health Information to Provider – Post Acute Care (PAC) (CMS ID: I024.01)	January 1 through December 31
Transfer of Health Information to Patient – Post Acute Care (PAC) (CMS ID: I025.02)	January 1 through December 31

[a] For information regarding the transition from IRF-PAI v3.0 to IRF-PAI v4.0, see Section 5.3 "Measure Calculations During the Transition from IRF-PAI v3.0 to IRF-PAI v4.0".

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Chapter 5
Internet Quality Improvement and Evaluation System (iQIES) Data Selection for Assessment-Based (IRF-PAI) 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 IRF QRP and are specific to those quality measures calculated using the IRF-PAI. Information about the iQIES reports can be found on the CMS iQIES Reports website.

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

  - These reports allow providers to obtain facility-level performance data and its associated patient-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 include 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 patient-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.

  - The assessment-based (IRF-PAI) measures are refreshed monthly, at the facility- and patient-level, as data become available. The performance data contain the current quarter (may be partial) and the past three quarters.

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

  - The CDC NHSN measures are provided at the facility-level only.

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 use the data for quality improvement purposes.

Section 5.1 contains data selection criteria for the assessment-based (IRF-PAI) quality measures for the iQIES Review and Correct Reports. Since the criteria and reporting periods for the iQIES QM Reports are consistent across the facility- and patient-level reports, **Section 5.2** of this chapter presents data selection information that can be applied to both the iQIES Patient-level QM Reports and the iQIES Facility-level QM Reports.

Section 5.3 of this chapter addresses the transition from IRF-PAI v3.0 to IRF-PAI v4.0. Data collection for IRF-PAI v4.0 begins on October 1, 2022 and will impact certain quality measure

specifications.

Section 5.4 describes the Transfer of Health Information (TOH) measures which will be available to IRF providers in their iQIES reports starting in 2023.

Section 5.1: iQIES Review and Correct Reports

Below are the specifications for the iQIES Review and Correct Reports for the quality measures presented in **Chapter 4**, **Section 4.1**:

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

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

   b. The cumulative rates will be displayed using all data within one target period.

      i. **For all measures, excluding the Change in Self-Care and Change in Mobility measures:** the cumulative rate is derived by dividing the numerator of all eligible IRF stays in the target period by the denominator of all eligible IRF stays in the target period.

      ii. **For the Change in Self-Care and Change in Mobility measures:** the cumulative rate is derived by including all IRF stays for the target period which do not meet the exclusion criteria, calculating the change scores for each IRF stay, and then calculating the mean of the change scores. For instructions on calculating the change scores, please see **Chapter 6, Section 6.4** for the Change in Self-Care measure and **Chapter 6, Section 6.5** for the Change in Mobility measure.

   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 1 (January 1 through March 31) data collection would normally be 11:59 p.m. ET, August 15, which is the 15th day of the month, 5 months after the end of the data collection period. However, in FY 2021, August 15th fell on a Sunday; therefore, the deadline for this data submission was extended to the next business day, which was August 16, 2021, at 11:59 p.m. ET.

   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. Patient-level data will be displayed for each reporting quarter in the report.

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. Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: I022.01)

   b. Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (NQF #0674) (CMS ID: I013.01)

   c. Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (NQF #2631) (CMS ID: I008.02)

   d. IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633) (CMS ID: I009.05)

   e. IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05)

   f. IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05)

   g. IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.05)

   h. Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF QRP (CMS ID: I021.01)

   i. Transfer of Health Information to Provider – Post Acute Care (PAC) (CMS ID: I024.01)

   j. Transfer of Health Information to Patient – Post Acute Care (PAC) (CMS ID: I025.02)

5. **Data calculation rule**: The calculations include IRF 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 are accumulated until four quarters have been collected and then rolling quarters occur for subsequent years. For existing measures, data are displayed based on rolling quarters.

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 (IRF-PAI) Quality Measures

Quality Measure	Measure Type by User-Requested Year			
	2018	2019	2020-2022	2023
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: I022.01)	—	New	Existing	Existing
Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (NQF #0674) (CMS ID: I013.01)	Existing	Existing	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 (NQF #2631) (CMS ID: I008.02)	Existing	Existing	Existing	Existing
IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633) (CMS ID: I009.05)	Existing	Existing	Existing	Existing
IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05)	Existing	Existing	Existing	Existing
Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05)	Existing	Existing	Existing	Existing
Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.05)	Existing	Existing	Existing	Existing
Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF QRP (CMS ID: I021.01)	—	New	Existing	Existing
Transfer of Health Information to Provider – Post Acute Care (PAC) (CMS ID: I024.01)	—	—	—	New
Transfer of Health Information to Patient – Post Acute Care (PAC) (CMS ID: I025.02)	—	—	—	New

Table 5-3 below shows examples of quarterly rates included in the iQIES Review and Correct Reports for existing and for new measures:

- For an existing measure, if the requested calendar year quarter end date is Quarter 1, 2023 (end date of March 31st), the four quarters of data provided in this request include Q2 2022 (April – June), Q3 2022 (July – September), Q4 2022 (October – December), and Q1 2023 (January – March).

For a new measure, if the requested calendar year quarter end date is Quarter 1, 2023 (end date of March 31st), the only quarter of data provided in this request includes Q1 2023 (January – March).

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

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

Requested Calendar Year Quarter End Date[b]	Measure Type	Data Included from Previous Year[c]	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] 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

Section 5.2: iQIES Quality Measure (QM) Reports

Below are the specifications for the iQIES QM Reports for measures presented in **Chapter 4**, **Section 4.1**:

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 reporting timeline for the monthly iQIES QM Reports is provided in *Table 5-5* for the following measures:

    a. Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: I022.01)

    b. Application of Percent of Residents Experiencing One or More Falls with Major Injury (NQF #0674) (CMS ID: I013.01)

    c. Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (NQF #2631) (CMS ID: I008.02)

d. IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633) (CMS ID: I009.05)

e. IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05)

f. IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05)

g. IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.05)

h. Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF QRP (CMS ID: I021.01)

i. Transfer of Health Information to Provider – Post Acute Care (PAC) (CMS ID: I024.01)

j. Transfer of Health Information to Patient – Post Acute Care (PAC) (CMS ID: I025.02)

3. **Data calculation rule:** The calculations include IRF stay-level records 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 Date

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

[a] YYYY = User-Requested Year

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

Section 5.3: Measure Calculations During the Transition from IRF-PAI v3.0 to IRF-PAI v4.0

For IRFs, IRF-PAI data are submitted on one assessment (covering both admission and discharge data), and measure calculations are based on the discharge date.

The calculations for new measures begin with the implementation of the IRF-PAI v4.0 for IRF stays with discharge dates on or after October 1, 2022.

Section 5.4 Measures to Begin Data Collection on 10/01/2022: Transfer of Health Information (TOH)

The Transfer of Health Information (TOH) to the Provider (CMS ID: I024.01) and Transfer of Health Information to the Patient (CMS ID: I025.02) measures assess for and report on the timely transfer of health information, specifically transfer of a reconciled medication list, when a patient is discharged from their current post-acute care setting to an applicable subsequent provider or a private home/apartment, board/care, assisted living, group home, transitional living, or home under care of an organized home health service organization or hospice. The measures, developed under the IMPACT act and finalized for adoption by IRFs under the FY 2020 IRF PPS final rule (84 FR 39099 - 39107), have been developed for the IRF, LTCH, Skilled Nursing Facility (SNF), and Home Health Agency (HHA) settings, and will be available to IRF providers via their iQIES reports starting in 2023. An update to the denominator for the TOH to the Patient measure was finalized in the FY 2022 IRF PPS final rule (84 FR 43296 – 42397) to exclude patients discharged home under the care of an organized home health agency or hospice (Item 44D = 06, 50). Complete information regarding the background and development of the measures can be found on the IRF QRP Measures Information website.

The TOH to Provider measure is calculated using a standardized assessment element (Item A2121) that asks whether, at the time of discharge, the patient's current reconciled medication list was provided to the subsequent provider and a second standardized assessment element (Item A2122) that addresses the route of transmission to ensure internal measure consistency. Similarly, the TOH to Patient measure uses a standardized assessment element (Item A2123) that addresses whether the medication list was provided to the patient, family, and/or caregiver at discharge, with a second standardized assessment element (Item A2124) that addresses the route of transmission. Record selection is described in detail in Chapter 4 and measure calculations are specified in Chapter 6. Table 7-9 and Table 7-10 provide the measure specifications in table format.

Chapter 6
Measure Calculations for Assessment-Based (IRF-PAI) Quality Measures

This chapter presents technical details regarding calculating the assessment-based quality measures that are included in the IRF QRP. Note that IRF-PAI data are submitted for Medicare Part A and Medicare Advantage patients only. In this chapter, each section is specific to an assessment-based quality measure. Within each section the iQIES Review and Correct Report measure calculations are presented first, followed by the iQIES QM Report measure calculations. If the measure is risk-adjusted for the QM Reports, then additional details regarding the risk-adjusted calculations are provided; otherwise, the Review and Correct Report calculations can be used to conduct the QM Report measure calculations. Prior to the measure specifications steps in **Chapter 6**, please refer to **Chapter 1, Section 1.2** on instructions to define the IRF stay for the QM sample and **Chapter 4** for the record selection criteria.

Section 6.1: Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: I022.01)

iQIES Review and Correct Report Measure Calculations for Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: I022.01)

For the Review and Correct Reports, only the facility-level observed score is computed; the facility's risk-adjusted score is not reported. Using the definitions from *Table 7-1*, the following steps are used to calculate the quality measure.

1. **Identify excluded IRF stays** (Steps 1.1 through 1.2).

    1.1   An IRF stay is excluded if data on new or worsened Stage 2, 3, 4 , and unstageable pressure ulcers/injuries are missing at discharge: (M0300B1 = [-] or M0300B2 = [-]) and (M0300C1 = [-] or M0300C2 = [-]) and (M0300D1= [-] or (M0300D2= [-]) and (M0300E1= [-] or M0300E2=[-]) and (M0300F1= [-] or M0300F2=[-]) and (M0300G1= [-] or M0300G2=[-]).

    1.2   An IRF stay is excluded if the patient died during the IRF stay; i.e., Item 44C = [0].

2. **Determine the denominator count**. Determine the total number of IRF stays with a discharge date in the measure target period, which do not meet the exclusion criteria.

3. **Determine the numerator count**. Determine the total number of IRF stays for which the IRF-PAI indicates one or more new or worsened Stage 2-4 pressure ulcer(s), or unstageable pressure ulcers/injuries at discharge, compared to admission:

    - Stage 2 (M0300B1) − (M0300B2) > 0, OR

    - Stage 3 (M0300C1) − (M0300C2) > 0, OR

    - Stage 4 (M0300D1) − (M0300D2) > 0, OR

- Unstageable – Non-removable dressing/device (M0300E1) − (M0300E2) > 0, OR

- Unstageable – Slough and/or eschar (M0300F1) − (M0300F2) > 0, OR

- Unstageable – Deep tissue injury (M0300G1) − (M0300G2) > 0

4. **Calculate the facility-level observed score**. Divide the facility's numerator count (Step 3) by its denominator count (Step 2) to obtain the facility-level observed score, and then multiply by 100 to obtain a percent value.

5. <u>**Round the percent value to one decimal place.**</u>

   5.1 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.

   5.2 Drop all the digits following the first decimal place.

<u>iQIES QM Report Measure Calculations for Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: I022.01)</u>

This measure is risk-adjusted for the iQIES QM Reports and an observed and a risk-adjusted value is reported. Using the definitions in *Table 7-1*, the following steps are used to calculate the measure.

1. **Calculate the facility-level observed score** (Steps 1.1 through 1.2 below).

   1.1 To calculate the facility-level observed score, complete Steps 1 – 4 from **Chapter 6**, **Section 6.1**, "iQIES Review and Correct Report Measure Calculations for Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury."

   1.2 Do not multiply by 100 or round to the nearest first decimal place. All rounding will be done at the end of the measure calculation.

2. **Calculate the national average observed score**[5] (Steps 2.1 through 2.3).

   2.1 After excluding IRF stays based on the criteria listed in *Table 7-1*, the remaining IRF stays become the denominator for the national average observed score.

   2.2 Identify IRF stays in the denominator of the national average observed score with pressure ulcers/injuries that are new or worsened based on the criteria in *Table 7-1*. These records comprise the numerator of the national average observed score.

   2.3 Divide the numerator (2.2) by the denominator (2.1) to calculate the national average observed score.

   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 the Risk Adjustment Appendix File on the IRF QRP Measures Information website. *Please note that, depending on the reporting period and time of calculation, the national*

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[5] The national average observed score is calculated using the IRF stay as the unit of analysis.

average observed score used in the iQIES QM Report, Provider Preview Report, and on public display on the Care Compare Website may vary from the national average observed score provided by these documents.

3. **Calculate the facility-level expected score for each IRF stay** (Steps 3.1 through 3.3).

   3.1 Determine presence or absence of the pressure ulcer covariates for each IRF stay.

   3.2 Using the covariate definitions in *Table 7-1*, assign covariate values (COV), either '0' for covariate condition not present or '1' for covariate condition present, for each IRF stay for each of the four covariates as reported on the Admission assessment.

   3.3 Calculate the expected score for each IRF stay using the following formula:

$$[1] \text{ IRF stay level expected score} = \frac{1}{[1 + e^{-x}]}$$

Where:

- e is the base of natural logarithms

- X is a linear combination of the constant and the logistic regression coefficients times the covariate scores (from Formula [2], below):

$$[2] \; X = \beta_0 + \beta_1(COV_1) + \beta_2(COV_2) + \beta_3(COV_3) + \beta_4(COV_4)$$

$$[3] \; \text{Probability}(Y = 1) = \text{Logit}(X)$$

Where:

- Y identifies if the IRF stay is part of the numerator count (i.e., triggering the quality measure: 1 = yes, 0 = no).

- β_0 is the logistic regression constant or intercept.

- β_1 is the logistic regression coefficient for the first covariate "functional mobility", and COV_1 is the IRF stay-level covariate value.

- β_2 is the logistic regression coefficient for the second covariate "bowel incontinence", and COV_2 is the IRF stay-level covariate value.

- β_3 is the logistic regression coefficient for the third covariate "peripheral vascular disease/peripheral artery disease (PVD/PAD) or diabetes mellitus", and COV_3 is the IRF stay-level covariate value.

- β_4 is the logistic regression coefficient for the fourth covariate "low body mass index (BMI)", and COV_4 is the IRF stay-level covariate value.

See **Appendix A**, *Table A-2*, and the associated Risk Adjustment Appendix File for the regression constant and coefficients.[6] The regression constant and coefficients are values

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[6] The regression constant (intercept) and coefficient values have been rounded to four decimal places. When

obtained through statistical logistic regression analysis. Please note that the iQIES QM and Provider Preview Reports use fixed regression constant and coefficients based on the target period stated in *Table A-2* and the Risk Adjustment Appendix File.

4. **Calculate the mean facility-level expected score** (Step 4.1).

   4.1   Once IRF stay-level expected scores have been calculated, calculate the mean facility-level expected score as the mean of the facility's IRF stay-level expected scores.

5. **Calculate the facility-level risk-adjusted score** (Steps 5.1 through 5.3).

   5.1   Calculate the facility-level risk-adjusted score based on the:

   - Facility-level observed quality measure score (Steps 1.1 through 1.2)

   - Mean facility-level expected quality measure score (Step 4.1)

   - National average observed quality measure score (Steps 2.1 through 2.3)

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

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

Where:

   - e is the base of natural logarithms.

   - Adj is the facility-level risk-adjusted quality measure score.

   - y is the product of the following formula:

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

Where:

   - **Obs** is the facility-level observed quality measure score.

   - **Exp** is the mean facility-level expected quality measure score.

   - **Nat** is the national average observed quality measure score.

   - **Ln** indicates a natural logarithm.

   5.2   Multiply the risk-adjusted score (Adj) by 100 and round the percent value to one decimal place.

      5.2.1   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.

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.

5.2.2　Drop the digits following the first decimal place.

5.3　Facility-level recoding instructions.

5.3.1　If the facility-level observed score (Step 1) equals 0, then the facility-level observed percent and the facility-level risk-adjusted percent values are set to 0.0.

5.3.2　If the facility-level observed score (Step 1) equals 1, then the facility-level observed percent and the facility-level risk-adjusted percent values are set to 100.0.

National Average Calculation for Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: I022.01)

To calculate the IRF stay-level (i.e., prevalence) national average, refer to Step 2 under the iQIES QM Report Measure Calculations for this measure.

Section 6.2: Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (NQF #0674) (CMS ID: I013.01)

iQIES Review and Correct Report Measure Calculations for Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (NQF #0674) (CMS ID: I013.01)

Since this measure is not risk-adjusted or stratified, only the facility-level observed score is computed and the following steps can be applied to both the iQIES Review and Correct Report measure calculation and the iQIES QM report measure calculation. Using the measure specifications from *Table 7-2*, the following steps are used to calculate the measure.

1. **Identify excluded IRF stays.**

   1.1 An IRF stay is excluded if the number of falls with major injury was not coded at discharge; i.e., J1900C = [-].

2. **Determine the denominator count**. Determine the total number of IRF stays with the discharge date in the measure target period that do not meet the exclusion criteria.

3. **Determine the numerator count**. Determine the total number of IRF stays with a discharge date during the selected time window that recorded one or more falls that resulted in major injury (J1900C = [1] or [2]).

4. **Calculate the facility-level observed score**. Divide the facility's numerator count (Step 3) by its denominator count (Step 2) to obtain the facility-level observed score, and then multiply by 100 to obtain a percent value.

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

   5.1 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.

   5.2 Drop all of the digits following the first decimal place.

iQIES QM Report Measure Calculations for Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (NQF #0674) (CMS ID: I013.01)

As previously stated, this measure is not risk-adjusted or stratified. The steps to calculate the iQIES Review and Correct Report can be applied to calculate the iQIES QM Report. Follow the steps provided above for the iQIES QM report measure calculations for the Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (NQF #0674) (CMS ID: I013.01).

National Average Calculation for Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (NQF #0674) (CMS ID: I013.01)

Use the following steps to calculate the IRF stay-level (i.e., prevalence) national average:

1. Determine the total number of IRF stays in the nation after applying the exclusion criteria. This is the denominator for the national average.
2. Identify IRF stays in the denominator of the national average that are included in the numerator for this measure. This is the numerator for the national average.
3. Divide the numerator (Step 2) by the denominator (Step 1) then multiply by 100, and round the percent value to one decimal place to obtain the national average.
    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 of the digits following the first decimal place.

Section 6.3: Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan that Addresses Function (NQF #2631[7]) (CMS ID: I008.02)

iQIES Review and Correct Report Measure Calculations for Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan that Addresses Function (NQF #2631) (CMS ID: I008.02)

Since this measure is not risk-adjusted or stratified, only the facility-level observed score is computed and the following steps can be applied to both the iQIES Review and Correct Report and the iQIES QM Report measure calculation. Using the definitions from *Table 7-3*, the following steps are used to calculate the measure.

1. Identify IRF stays as being complete or incomplete (Steps 1.1 and 1.2).

    1.1 Patients with **incomplete IRF stays** are identified based on:

        1.1.1 Discharge to acute care that results in the patient's absence from the IRF for longer than 3 calendar days : Discharge Destination (Item 44D) 02 = Short-term General Hospital, 63 = Long-Term Care Hospital (LTCH), 65 = Inpatient Psychiatric Facility, 66 = Critical Access Hospital (CAH)

OR

        1.1.2 Died while in IRF: Was the patient discharged alive? (Item 44C = [0])

OR

        1.1.3 Discharged Against Medical Advice: Patient discharged against medical advice (Item 41 = [1])

OR

        1.1.4 Length of stay less than 3 days: ([Item 40. Discharge Date] minus [Item 12. Admission Date]) < 3 days.

    1.2 IRF stays not meeting the criteria for incomplete IRF stays will be considered complete IRF stays.

2. Both types of IRF stays are included in the denominator, but the specifications vary by complete and incomplete IRF stays for the numerator.

    2.1 **Complete IRF stays.** For patients with complete IRF stays, each functional assessment item listed below must have a valid numeric score indicating the patient's status [01 – 06], or a valid code indicating the activity was not attempted (e.g., GG0130A1 = [07, 09, 10, 88]). All three of the following criteria are required

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[7] This measure (I008.02) is an application of measure L009.03 and is not NQF endorsed.

for inclusion in the numerator:

2.1.1   A valid numeric score [01 – 06] indicating the patient's functional status [01 – 06], a valid code indicating the activity was not attempted (e.g., GG0130A1 = [07, 09, 10, 88]) for each of the functional assessment items, or a "^" indicating items affected by the skip pattern. All admission functional assessment items (refer to 2.3 below) must be completed; and

2.1.2   A valid numeric score [01 – 06] or a valid code indicating the activity was not attempted (e.g., GG0130A2= [07, 09, 10, 88]) for a discharge goal indicating the patient's expected level of independence, for at least one self-care or mobility item (refer to 2.4 below); and

2.1.3   A valid numeric score indicating the patient's functional status [01 – 06], a valid code indicating the activity was not attempted (e.g., GG0130A3 = [07, 09, 10, 88]), or a "^" indicating a skip pattern for each of the discharge functional assessment items. All discharge functional assessment items (refer to 2.5 below) must be completed.

2.2   **Incomplete IRF stays.** For patients with incomplete IRF stays, collection of discharge functional status data might not be feasible. Each admission functional assessment item listed below must have a valid numeric score indicating the patient's status [01 – 06], or a valid code indicating the activity was not attempted (e.g. GG0130A1 = [07, 09, 10, 88]). The following two criteria are required for inclusion in the numerator:

2.2.1   A valid numeric score indicating the patient's functional status [01 – 06], a valid code indicating the activity was not attempted (e.g., GG0130A1 = [07, 09, 10, 88]), or a "^" indicating a skip pattern for each of the functional assessment items. All admission functional assessment items (refer to 2.3 below) must be completed; and

2.2.2   A valid numeric score [01 – 06] or a valid code indicating the activity was not attempted (e.g., GG0130A2 = [07, 09, 10, 88]) for a discharge goal indicating the patient's expected level of independence, for at least one self-care or mobility item (refer to 2.4 below).

2.3   Admission functional performance items included in this measure are:

The self-care (GG0130) items are:

- GG0130A1. Eating
- GG0130B1. Oral hygiene
- GG0130C1. Toileting hygiene

The mobility (GG0170) items are:
- 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

- GG0170I1. Walk 10 feet

For patients who are walking, as indicated by GG0170I1 = 01, 02, 03, 04, 05, or 06, include items:

- GG0170J1. Walk 50 feet with two turns

- GG0170K1. Walk 150 feet

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

For patients who use a wheelchair, as indicated by GG0170Q1=1, include items:

- GG0170R1. Wheel 50 feet with two turns

- GG0170RR1. Indicate the type of wheelchair/scooter used

- GG0170S1. Wheel 150 feet

- GG0170SS1. Indicate the type of wheelchair/scooter used

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

The following valid scores/codes for the self-care (GG0130) and mobility (GG0170) admission performance items are accepted for this quality measure:

- 06 – Independent

- 05 – Setup or clean-up assistance

- 04 – Supervision or touching assistance

- 03 – Partial/moderate assistance

- 02 – Substantial/maximal assistance

- 01 – Dependent

- 07 – Patient refused

- 09 – Not applicable

- 10 – Not attempted due to environmental limitations

- 88 – Not attempted due to medical condition or safety concerns

- ^ – Skip pattern

Valid codes for the type of wheelchair/scooter used (GG0170RR1 and GG0170SS1) for this quality measure:

- 1 – Manual

- 2 – Motorized

- ^ – Skip pattern

2.4 Discharge goal items reported on admission included in this measure (a minimum of one goal must be reported) are:

The self-care (GG0130) items are:

- GG0130A2. Eating

- GG0130B2. Oral hygiene

- GG0130C2. Toileting hygiene

- GG0130E2. Shower/bathe self

- GG0130F2. Upper body dressing

- GG0130G2. Lower body dressing

- GG0130H2. Putting on/taking off footwear

The mobility (GG0170) items are:

- GG0170A2. Roll left and right

- GG0170B2. Sit to lying

- GG0170C2. Lying to sitting on side of bed

- GG0170D2. Sit to stand

- GG0170E2. Chair/bed-to-chair transfer

- GG0170F2. Toilet transfer

- GG0170G2. Car transfer

- GG0170I2. Walk 10 feet

- GG0170J2. Walk 50 feet with two turns

- GG0170K2. Walk 150 feet

- GG0170L2. Walking 10 feet on uneven surfaces

- GG0170M2. 1 step (curb)

- GG0170N2. 4 steps

- GG0170O2. 12 steps

- GG0170P2. Picking up object

- GG0170R2. Wheel 50 feet with two turns

- GG0170S2. Wheel 150 feet

The following valid scores/codes for the self-care (GG0130) and mobility (GG0170)

discharge goal items are accepted for this quality measure:

- 06 – Independent
- 05 – Setup or clean-up assistance
- 04 – Supervision or touching assistance
- 03 – Partial/moderate assistance
- 02 – Substantial/maximal assistance
- 01 – Dependent
- 07 – Patient refused
- 09 – Not applicable
- 10 – Not attempted due to environmental limitations
- 88 – Not attempted due to medical condition or safety concerns

2.5   Discharge functional performance items included in this measure are:

The self-care (GG0130) items are:

- GG0130A3. Eating
- GG0130B3. Oral hygiene
- GG0130C3. Toileting hygiene

The mobility (GG0170) items are:

- 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
- GG0170I3. Walk 10 feet

For patients who are walking, as indicated by GG0170I3 = 01, 02, 03, 04, 05, or 06, include items:

- GG0170J3. Walk 50 feet with two turns
- GG0170K3. Walk 150 feet

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

For patients who use a wheelchair, as indicated by GG0170Q3=1, include items:

- GG0170R3. Wheel 50 feet with two turns
- GG0170RR3. Indicate the type of wheelchair/scooter used

- GG0170S3. Wheel 150 feet

- GG0170SS3. Indicate the type of wheelchair/scooter used

For patients who do not use a wheelchair as indicated by GG0170Q3=0, GG0170R3, GG0170RR3, GG0170S3, and GG0170SS3 are skipped.

The following valid scores/codes for the self-care (GG0130) and mobility (GG0170) discharge performance items are accepted for this quality measure:

- 06 – Independent

- 05 – Setup or clean-up assistance

- 04 – Supervision or touching assistance

- 03 – Partial/moderate assistance

- 02 – Substantial/maximal assistance

- 01 – Dependent

- 07 – Patient refused

- 09 – Not applicable

- 10 – Not attempted due to environmental limitations

- 88 – Not attempted due to medical condition or safety concerns

- ^ – Skip pattern

Valid codes for the type of wheelchair/scooter used (GG0170RR3 and GG0170SS3) for this quality measure are:

- 1 – Manual

- 2 – Motorized

- ^ – Skip pattern

3. **Determine the denominator count**. Determine the total number of IRF stays, both complete and incomplete, with an assessment in the measure target period.

4. **Determine the numerator count**. The numerator for this quality measure is the number of IRF stays with complete functional assessment data and at least one self-care or mobility goal. The counts from Step 2.1 (complete IRF stays) and from Step 2.2 (incomplete IRF stays) are summed. This sum is the numerator count.

5. **Calculate the facility-level observed score**. Divide the facility's numerator count (Step 4) by its denominator count (Step 3) to obtain the facility-level observed score, and then multiply by 100 to obtain a percent value.

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

6.1 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.

6.2 Drop all the digits following the first decimal place.

iQIES QM Report Measure Calculations for Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan that Addresses Function (NQF #2631) (CMS ID: I008.02)

As previously stated, this measure is not risk-adjusted or stratified. The steps to calculate the iQIES Review and Correct Report can be applied to calculate the iQIES QM Report. Follow the steps provided above for the iQIES QM Report measure calculation for the Application of Percent of Long-Term Care Hospital (LTCH) Patients with An Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (NQF #2631) (CMS ID: I008.01).

National Average Calculation for Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan That Addresses Function (NQF #2631) (CMS ID: I008.02)

Use the following steps to calculate the IRF stay-level (i.e., prevalence) national average:

1. Determine the total number of IRF stays in the nation meeting the denominator criteria. This is the denominator for the national average.
2. Identify IRF stays in the denominator of the national average that are included in the numerator for this measure. This is the numerator for the national average.
3. Divide the numerator (Step 2) by the denominator (Step 1). Then, multiply by 100 and round the percent value to one decimal place to obtain the national average.
   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 of the digits following the first decimal place.

Section 6.4: IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633) (CMS ID: I009.05)

iQIES Review and Correct Report Measure Calculations for IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633) (CMS ID: I009.05)

For the Review and Correct Reports, only the facility-level observed score is computed; the facility's risk-adjusted score is not reported. Using the definitions from *Table 7-4*, the following steps are used to calculate the quality measure.

1. **Calculate the admission self-care score** (Steps 1.1 through 1.2) using the admission Self- Care score items and valid codes identified below:

   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 – Patient 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

   1.1   To obtain the score, use the following procedure:

- If code is between 01 and 06, then use the code as the score.

- If code is 07, 09, 10, or 88, then recode to 01 and use this code as the score.

- If the self-care item is dashed (-) or missing, recode to 01, and use this code as the score.

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

2. **Calculate the discharge self-care score** (Steps 2.1 through 2.2) using the discharge Self- Care score items and valid codes identified below.

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 – Patient 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

2.1 To obtain the score, use the following procedure:

- If code is between 01 and 06, then use code as the score.

- If code is 07, 09, 10, or 88, then recode to 01 and use this code as the score.

- If the self-care item is skipped (^), dashed (-), or missing, recode to 01 and use this code as the score.

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

3. **Identify excluded IRF stays**. The IRF stay is excluded if any of the following are true (Steps 3.1 through 3.5).

3.1 Incomplete IRF stays:

3.1.1 Discharge to acute care that results in the patient's absence from the IRF for longer than 3 calendar days: Patient's discharge destination (Item 44D): Short-term General Hospital (Item 44D = [02]), Long-Term Care Hospital (LTCH) (Item 44D = [63]), Inpatient Psychiatric Facility (Item 44D = [65]), Critical Access Hospital (CAH) (Item 44D = [66]); or

3.1.2 Died while in IRF: Was the patient discharged alive (Item 44C = [0]); or

3.1.3 Discharged against medical advice: Patient discharged against medical advice (Item 41 = [1]); or

3.1.4 Length of stay is less than 3 days: Discharge Date (Item 40) – Admission Date (Item 12) is less than 3 days.

3.2 Patient is independent on all self-care activities at the time of admission. Items used to identify these IRF stays:

- Eating (Item GG0130A1 = [06]);

- Oral hygiene (Item GG0130B1 = [06]);

- Toileting hygiene (Item GG0130C1 = [06]);

- Shower/bathe self (Item GG0130E1 = [06]);

- Upper body dressing (Item GG0130F1 = [06]);

- Lower body dressing (Item GG0130G1 = [06]); and

- Putting on/taking off footwear (Item GG0130H1 = [06]).

3.3 Patient is in a coma, persistent vegetative state, has complete tetraplegia, locked-in state, severe anoxic brain damage, cerebral edema, or compression of brain.

Items used to identify these IRF stays:

- Impairment Group (Item 21A = [0004.1221 or 0004.1222 or 0004.2221 or 0004.2222]).

- Etiologic Diagnosis A., B., or C. (Item 22 = any one of the ICD-10-CM

codes listed in **Appendix A**, *Table A-3*).

- Comorbid Condition (Item 24 = any of the ICD-10-CM codes listed in **Appendix A**, *Table A-3*).

3.4 Patient is younger than 18 years: Age in years is calculated based on the truncated difference between admission date (Item 12) and birth date (Item 6); i.e., the difference is not rounded to nearest whole number.

3.5 Patient is discharged to hospice (home or institutional facility) (Item 44D = 50 or 51).

4. **Determine the included IRF stays.** Determine the total number of IRF stays with an IRF-PAI in the measure target period, which do not meet the exclusion criteria. Note that this measure does not have a simple form for the numerator and denominator.

5. **Calculate the observed change in self-care scores for each IRF stay**. For each IRF stay included in Step 4, subtract the admission self-care score (Step 1) from the discharge self-care score (Step 2). If a patient's self-care score decreased from admission to discharge, the difference will be a negative value.

6. **Calculate the facility-level average observed change in self-care score**. Calculate an average observed change in self-care score for each IRF as the mean of the observed change in self-care scores for all IRF stays in the facility that are not excluded from the measure.

7. **Round the value to one decimal place.**

7.1 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.

7.2 Drop all the digits following the first decimal place.

iQIES QM Report Measure Calculations for IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633) (CMS ID: I009.05)

This measure is risk-adjusted for the iQIES QM Reports and therefore an observed (i.e., not risk-adjusted) and a risk-adjusted value are reported. Using the definitions in *Table 7-4*, the following steps are used to calculate the measure.

1. **Calculate the facility-level average observed change in self-care score.**

1.1 To calculate the facility-level average observed change in self-care score, complete Steps 1 – 6 from **Chapter 6**, **Section 6.4**, "iQIES Review and Correct Report Measure Calculations" for NQF #2633.

1.2 Do not round to the nearest first decimal place. All rounding will be done at the end of the measure calculation.

2. **Calculate the national average change in self-care score[8]** as the mean of the observed

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[12] The national average observed score is calculated using the IRF stay as the unit of analysis.

change in self-care scores for all IRF stays calculated from Steps 1–5 in **Chapter 6, Section 6.4**. This will be used in Step 5 to calculate the risk-adjusted average change in self-care score.

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 the 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 Care Compare Website may vary from the national average observed score provided by these documents.

3. **Calculate the expected change in self-care score.**

    3.1   For each IRF stay, use the intercept and regression coefficients to calculate the expected change in self-care score using the formula below:

    [1] *Expected change in self-care score = $\beta_0 + \beta_1(COV_1) + \ldots + \beta_n(COV_n)$*

Where:

- **Expected change in self-care score** identifies the expected change in self-care score for each IRF 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* and *Table A-5*, and the associated Risk Adjustment Appendix File for the regression intercept and coefficients as well as detailed IRF-PAI coding for each risk adjustor.[9] The regression intercept and regression coefficients are values obtained through 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 A-4* and *Table A-5* and the Risk Adjustment Appendix File.

4. **Calculate the facility-level average expected change in self-care score**. Calculate an average expected change in self-care score for each IRF as the mean of the expected change in self-care scores for all IRF stays in the facility.

5. **Calculate the risk-adjusted average change in self-care score** (Steps 5.1 through 5.2).

    5.1   **Calculate the difference** between the facility-level average observed change in self-care score (Step 1) and the facility-level average expected change in self-care score (Step 4) to create an observed minus expected difference (difference value).

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13   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.

- 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.

5.2 **Add** the national average to each IRF's difference value (step 5.1). This is the facility-level risk-adjusted average change in self-care score.

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

6.1 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.

6.2 Drop all of the digits following the first decimal place.

National Average Calculation for IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633) (CMS ID: I009.05)

To calculate the IRF stay-level (i.e., prevalence) national average, refer to Step 2 under the iQIES QM Report Measure Calculations for this measure.

Section 6.5: IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05)

iQIES Review and Correct Report Measure Calculations for IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05)

For the Review and Correct Reports, only the facility-level observed score is computed; the facility's risk-adjusted score is not reported. Using the definitions from *Table 7-5*, the following steps are used to calculate the quality measure.

1. **Calculate the admission mobility score** (Steps 1.3 through 1.4) using the admission mobility items and valid codes identified below. Please note there are different items used if the patient does not walk at both admission and discharge (Step 1.1) than for the remaining patients (Step 1.2):

   1.1 For patients who have codes 07, 09, 10, or 88 for the Walk 10 feet item at both admission (GG0170I1, Walk 10 feet) and discharge (GG0170I3, Walk 10 feet), the following mobility admission items are used for admission mobility score calculations:

   - 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
   - GG0170R1. Wheel 50 feet with two turns*
   - GG0170S1. Wheel 150 feet*
   - GG0170M1. 1 step (curb)
   - GG0170N1. 4 steps
   - GG0170O1. 12 steps
   - GG0170P1. Picking up object

   Please count the score for this item twice; 15 items are used to calculate a patient's score (scores range from 15 – 90).

   1.2 For the remaining patients, please use the following mobility admission items for admission mobility score calculations:

- 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 – Patient 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

1.3 To obtain the score, use the following procedure:

- If code is between 01 and 06, then use code as the score.

- If code is 07, 09, 10, or 88, then recode to 01 and use this code as the score.

- If the mobility item is skipped (^), dashed (-), or missing, recode to 01 and use this code as the score.

1.4 Sum the scores of the admission mobility items to create an admission mobility score for each IRF stay. Scores can range from 15 – 90, with a higher score indicating greater independence.

2. **Calculate the discharge mobility score** (Steps 2.3 through 2.4) using the discharge mobility items and valid codes identified below. Please note there are different items used if the patient does not walk at both admission and discharge (Step 2.1) than for the remaining patients (Step 2.2):

2.1 For patients who have codes 07, 09, 10, or 88 for the Walk 10 feet item at both admission (GG0170I1, Walk 10 feet) and discharge (GG0170I3, Walk 10 feet), the following mobility assessment items are used for discharge mobility score calculations:

- 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

- GG0170R3. Wheel 50 feet with two turns*

- GG0170S3. Wheel 150 feet*

- GG0170M3. 1 step (curb)

- GG0170N3. 4 steps

- GG0170O3. 12 steps

- GG0170P3. Picking up object

Please count the score for this item twice; 15 items are used to calculate a patient's score (scores range from 15 – 90).

2.2 For the remaining patients, please use the following mobility assessment items for discharge mobility score calculations:

- 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 – Patient 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

2.3 To obtain the score, use the following procedure:

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

2.4 Sum the scores of the discharge mobility items to create a discharge mobility score

for each IRF stay. Scores can range from 15 – 90, with a higher score indicating greater independence.

3. **Identify excluded IRF stays.** The IRF stay is excluded if any of the following are true (Steps 3.1 through 3.5).

   3.1   Incomplete IRF stays:

       3.1.1   Discharge to acute care that results in the patient's absence from the IRF for longer than 3 calendar days: Patient discharge destination (Item 44D): Short-Term General Hospital (Item 44D = [02]), Long-Term Care Hospital (LTCH) (Item 44D = [63]), Inpatient Psychiatric Facility (Item 44D = [65]), Critical Access Hospital (Item 44D = [66]).

       3.1.2   Died while in IRF: Was the patient discharged alive (Item 44C = [0]).Length of stay is less than 3 days: Discharge Date (Item 40) – Admission Date (Item 12) < 3 days.

       3.1.3   Discharged against medical advice: Patient discharged against medical advice (Item 41 = [1]).

       3.1.4   Length of stay is less than 3 days: Discharge Date (Item 40) – Admission Date (Item 12) < 3 days.

   3.2   Patient is independent with all mobility activities at the time of admission.

Items used to identify these IRF stays:

- Roll left and right (Item GG0170A1 = [06]);
- Sit to lying (Item GG0170B1 = [06]);
- Lying to sitting on side of bed (Item GG0170C1 = [06]);
- Sit to stand (Item GG0170D1 = [06]);
- Chair/bed-to-chair transfer (Item GG0170E1 = [06]);
- Toilet transfer (Item GG0170F1 = [06]);
- Car transfer (Item GG0170G1 = [06]);
- Walk 10 feet (Item GG0170I1 = [06]);
- Walk 50 feet with two turns (Item GG0170J1 = [06]);
- Walk 150 feet (Item GG0170K1 = [06]);
- Walk 10 feet on uneven surfaces (Item GG0170L1 = [06]);
- 1 step (curb) (Item GG0170M1 = [06]);
- 4 steps (Item GG0170N1 = [06]);
- 12 steps (Item GG0170O1 = [06]); and

- Picking up object (Item GG0170P1 = [06]).

3.3 Patient is in a coma, persistent vegetative state, has complete tetraplegia, locked-in state, severe anoxic brain damage, cerebral edema, or compression of brain.

Items used to identify these IRF stays:

- Impairment Group (Item 21A = [0004.1221 or 0004.1222 or 0004.2221 or 0004.2222]).

- Etiologic Diagnosis A., B., or C. (Item 22 = any of the ICD-10-CM codes listed in **Appendix A**, *Table A-3*).

- Comorbid Condition (Item 24 = any of the ICD-10-CM codes listed in **Appendix A**, *Table A-3*).

3.4 Patient is younger than 18 years: Age in years is calculated based on the truncated difference between admission date (Item 12) and birth date (Item 6); i.e., the difference is not rounded to nearest whole number.

3.5 Patient is discharged to hospice (home or institutional facility) (Item 44D = [50 or 51]).

4. **Determine the included IRF stays.** Determine the total number of IRF stays with an IRF-PAI in the measure target period, which did not meet the exclusion criteria. Note that this measure does not have a simple form for the numerator and denominator.

5. **Calculate the observed change in mobility scores for each IRF stay-level record**. For each IRF stay-level record included, subtract the admission mobility score (Step 1) from the discharge mobility score (Step 2). If a patient's mobility score decreased from admission to discharge, the difference will be a negative value.

6. **Calculate the facility-level average observed change in mobility score**. Calculate an average observed change in mobility score for each IRF as the mean of the observed change in mobility scores for all IRF stays in the facility that are not excluded.

7. **Round the value to one decimal place.**

7.1 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.

7.2 Drop all the digits following the first decimal place.

iQIES QM Report Measure Calculations for IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05)

This measure is risk-adjusted for the iQIES QM Reports and therefore an observed (i.e., not risk-adjusted) and a risk-adjusted value are reported. Using the definitions in *Table 7-5*, the following steps are used to calculate the measure.

1. **Calculate the facility-level average observed change in mobility score** (Steps 1.1 through 1.2).

1.1 To calculate the facility-level average observed change in mobility score, complete Steps 1 – 6 from **Chapter 6**, **Section 6.5**, "iQIES Review and Correct Report Measure Calculations" for NQF #2634.

1.2 Do not round to the nearest first decimal place. All rounding will be done at the end of the measure calculation.

2. **Calculate the national average change in mobility score**[10] as the mean of the observed change in mobility scores for all IRF stays calculated from Steps 1–5 in **Chapter 6, Section 6.5**. This will be used in Step 5 to calculate the risk-adjusted average change in mobility score.

   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 the 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 Care Compare Website may vary from the national average observed score provided by these documents.

3. **Calculate the expected change in mobility score.**

   3.1 For each IRF stay, use the intercept and regression coefficients to calculate the expected change in mobility score using the formula below:

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

   Where:

   - *Expected change in mobility score* identifies the expected change in mobility score for each IRF 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* and *Table A-5*, and the associated Risk Adjustment Appendix File for the regression intercept and coefficients as well as detailed IRF-PAI coding for each risk adjustor.[11] The regression intercept and regression coefficients are values obtained through 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 A-4* and *Table A-5* and the Risk Adjustment Appendix File.

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[14] The national average observed score is calculated using the IRF stay as the unit of analysis.

[11] 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.

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

5. **Calculate the risk-adjusted average change in mobility score (Steps 5.1 through 5.2).**

   5.1 **Calculate the difference** between the facility-level average observed change in mobility score (Step 1) and the facility-level average expected change in mobility score (Step 4) to create an observed minus expected difference (difference value**).**

   - 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.

   5.2 **Add** the national average to each IRF's difference value (step 5.1). This is the facility-level risk-adjusted average change in mobility score.

6. Round the value to one decimal place.

   6.1 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.

   6.2 Drop all of the digits following the first decimal place.

National Average Calculation for IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05)

To calculate the IRF stay-level (i.e., prevalence) national average, refer to Step 2 under the iQIES QM Report Measure Calculations for this measure.

Section 6.6: IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05)

iQIES Review and Correct Report Measure Calculations for IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05)

This measure requires risk-adjusted data for the Review and Correct Reports since it estimates the percent of IRF patients who meet or exceed an expected discharge self-care score. Using the definitions from *Table 7-6*, the following steps are used to calculate the quality measure.

1. **Calculate the observed discharge self-care score** (Steps 1.1 through 1.2) using the discharge self-care items and valid codes identified below:

    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 – Patient 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

1.1 To obtain the score, use the following procedure:

- If code is between 01 and 06, then use code as the score.

- If code is 07, 09, 10, or 88, then recode to 01 and use this code as the score.

- If the self-care item is skipped (^), dashed (-) or missing, recode to 01 and use this code as the score.

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

2. **Identify excluded IRF stays**. The IRF stay is excluded if any of the following are true (Steps 2.1 through 2.4).

2.1 Incomplete IRF stays:

2.1.1 Discharge to acute care that results in the patient's absence from the IRF for longer than 3 calendar days: Patients discharge destination (Item 44D): Short-Term General Hospital (Item 44D = [02]), Long-Term Care Hospital (LTCH) (Item 44D = [63]), Inpatient Psychiatric Facility (Item 44D = [65]), Critical Access Hospital (Item 44D = [66]); or

2.1.2 Died while in IRF: Was the patient discharged alive (Item 44C = [0]); or

2.1.3 Discharged against medical advice: Patient discharged against medical advice (Item 41 = [1]); or

2.1.4 Length of stay is less than 3 days: Discharge Date (Item 40) – Admission Date (Item 12) < 3 days.

2.2 Patient is in a coma, persistent vegetative state, has complete tetraplegia, locked-in state, severe anoxic brain damage, cerebral edema, or compression of brain.

Items used to identify these IRF stays:

- Impairment Group (Item 21A = [0004.1221 or 0004.1222 or 0004.2221 or 0004.2222]).

- Etiologic Diagnosis A., B. or C. (Item 22 = any one of the ICD-10-CM codes listed in **Appendix A**, *Table A-3*).

- Comorbid Condition (Item 24 = any of the ICD-10-CM codes listed in **Appendix A**, *Table A-3*).

2.3 Patient is younger than 18 years: Age in years is calculated based on the truncated difference between admission date (Item 12) and birth date (Item 6); i.e., the difference is not rounded to nearest whole number.

2.4 Patient is discharged to hospice (home or institutional facility) (Item 44D = [50 or 51]).

3. **Calculate the expected discharge self-care score.**

   3.1 For each IRF stay: use the intercept and regression coefficients to calculate the expected discharge self-care score using the formula below:

   [1] *Expected discharge self-care score = $\beta_0 + \beta_1(COV_1) + \ldots + \beta_n(COV_n)$*

   Where:

   - *Expected discharge self-care score* estimates an expected discharge self-care score.

   - β_0 is the regression intercept.

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

Note that any expected discharge self-care score greater than the maximum (i.e., 42) would be recoded to be the maximum score.

See **Appendix A**, *Table A-4* and *Table A-5*, and the associated Risk Adjustment Appendix File for the regression intercept and coefficients as well as detailed IRF-PAI coding for each risk adjustor.[12] The regression intercept and regression coefficients are values obtained through 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 A-4* and *Table A-5* and the Risk Adjustment Appendix File.

4. **Calculate the difference in observed and expected discharge self-care scores**. For each IRF stay, compare each patient's observed discharge self-care score (Step 1) and expected discharge self-care score (Step 3) and classify the difference as one of the following:

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

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

5. **Determine the denominator count**. Determine the total number of IRF stays with an IRF-PAI 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 IRF 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 self-care percent**. Divide the facility's numerator count (Step 6) by its denominator count (Step 7) to obtain the facility-level discharge self-care percent, then multiply by 100 to obtain a percent value.

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[12] 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.

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.

iQIES QM Report Measure Calculations for IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05)

This measure requires risk-adjustment for the iQIES QM Reports. Follow the steps provided above for the iQIES Review and Correct Report measure calculations for the IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05).

National Average Calculation for IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05 I011.05)

Use the following steps to calculate the IRF stay-level (i.e., prevalence) national average:

1. Determine the total number of IRF stays in the nation after applying the exclusion criteria. This is the denominator for the national average.
2. Identify IRF stays in the denominator of the national average that are included in the numerator for this measure. This is the numerator for the national average.
3. Divide the numerator (Step 2) by the denominator (Step 1). Then, multiply by 100 and round the percent value to one decimal place to obtain the national average.
    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 of the digits following the first decimal place.

Section 6.7: IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.05)

iQIES Review and Correct Report Measure Calculations for IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.04)

This measure requires risk-adjusted data for the Review and Correct Reports since it estimates the percent of IRF patients who meet or exceed an expected discharge mobility score. Using the definitions from *Table 7-7*, the following steps are used to calculate the quality measure.

1. **Calculate the observed discharge mobility score** (Steps 1.1 through 1.4) using the discharge mobility items and valid codes identified below. Please note there are different items used if the patient does not walk at both admission and discharge (Step 1.1) than for the remaining patients (Step 2.2):

   1.1 For patients who code 07, 09, 10, or 88 for the Walk 10 feet item at both admission (GG0170I1) and discharge (GG0170I3), the following mobility assessment items are used for discharge mobility score calculations:

   - 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
   - GG0170R3. Wheel 50 feet with two turns*
   - GG0170S3. Wheel 150 feet*
   - GG0170M3. 1 step (curb)
   - GG0170N3. 4 steps
   - GG0170O3. 12 steps
   - GG0170P3. Picking up object

   Please count the score for this item twice; 15 items are used to calculate a patient's score (scores range from 15 – 90).

   1.2 For remaining patients, please use the following mobility assessment items for discharge mobility score calculations:

   - 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 – Patient 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

1.3   To obtain the score, use the following procedure:

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

this code as the score.

1.4 Sum the scores of the discharge mobility items to create a discharge mobility score for each IRF stay. Scores can range from 15 – 90, with a higher score indicating greater independence.

2. **Identify excluded IRF stays**. The IRF stay is excluded if any of the following are true (Steps 2.1 through 2.4).

   2.1 Incomplete IRF stays:

      2.1.1 Discharge to acute care that results in the patient's absence from the IRF for longer than 3 calendar days: Patients discharge destination (Item 44D): Short-Term General Hospital (Item 44D = [02]), Long-Term Care Hospital (LTCH) (Item 44D = [63]), Inpatient Psychiatric Facility (Item 44D = [65]), Critical Access Hospital (Item 44D = [66]); or

      2.1.2 Died while in IRF: Was the patient discharged alive (Item 44C = [0]); or

      2.1.3 Discharged against medical advice: Patient discharged against medical advice (Item 41 = [1]); or

      2.1.4 Length of stay is less than 3 days: Discharge Date (Item 40) – Admission Date (Item 12) < 3 days.

   2.2 Patient is in a coma, persistent vegetative state, has complete tetraplegia, locked-in state, severe anoxic brain damage, cerebral edema, or compression of brain.

      Items used to identify these IRF stays:

      - Impairment Group (Item 21A = [0004.1221 or 0004.1222 or 0004.2221 or 0004.2222]).

      - Etiologic Diagnosis A., B., or C. (Item 22 = any of the ICD-10-CM codes listed in **Appendix A**, *Table A-3*).

      - Comorbid Condition (Item 24 = any of the ICD-10-CM codes listed in **Appendix A**, *Table A-3*).

   2.3 Patient is younger than 18 years: Age in years is calculated based on the truncated difference between admission date (Item 12) and birth date (Item 6); i.e., the difference is not rounded to nearest whole number.

   2.4 Patient is discharged to hospice (home or institutional facility) (Item 44D = [50 or 51]).

3. Calculate the **expected discharge mobility score.**

   3.1 For each IRF stay: use the intercept and regression coefficients to calculate the expected discharge mobility score using the formula below:

      [1] *Expected discharge mobility score = $\beta_0 + \beta_1(COV_1) + \ldots + \beta_n(COV_n)$*

Where:

- *Expected discharge mobility score* estimates an expected discharge mobility score

- β_0 is the regression intercept

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

Note that any expected discharge mobility score greater than the maximum (i.e., 90) would be recoded to be the maximum score.

See **Appendix A**, *Table A-4* and *Table A-5*, and the associated Risk Adjustment Appendix File for the regression intercept and coefficients as well as detailed IRF-PAI coding for each risk adjustor.[13] The regression intercept and regression coefficients are values obtained through 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 A-4* and *Table A-5* and the Risk Adjustment Appendix File.

4. **Calculate the difference in observed and expected discharge mobility scores**. For each IRF stay which does not meet the exclusion criteria, compare each patient's observed discharge mobility score (Step 1) and expected discharge mobility score (Step 3) and classify the difference as one of the following:

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

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

5. **Determine the denominator count**. Determine the total number of IRF stays with an IRF-PAI 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 IRF stays in which the observed discharge score is the same as or higher than the expected discharge score (Step 4.1).

7. **Calculate the facility-level discharge mobility percent**. Divide the facility's numerator count (Step 6) by its denominator count (Step 5) to obtain the facility-level discharge mobility percent, 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.

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[13] 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.

iQIES QM Report Measure Calculations for IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NOF #2636) (CMS ID: I012.05)

This measure requires risk-adjustment for the iQIES QM Reports. Follow the steps provided above for the iQIES Review and Correct Report measure calculations for the IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.05).

National Average Calculation for IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.05)

Use the following steps to calculate the IRF stay-level (i.e., prevalence) national average:

1. Determine the total number of IRF stays in the nation after applying the exclusion criteria. This is the denominator for the national average.
2. Identify IRF stays in the denominator of the national average that are included in the numerator for this measure. This is the numerator for the national average.
3. Divide the numerator (Step 2) by the denominator (Step 1). Then, multiply by 100 and round the percent value to one decimal place to obtain the national average.
   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 of the digits following the first decimal place.

Section 6.8: Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF QRP (CMS ID: I021.01)

iQIES Review and Correct Report Measure Calculations for Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF QRP (CMS ID: I021.01)

Since this measure is not risk-adjusted or stratified, only the facility-level observed score is computed and the following steps can be applied to both the iQIES Review and Correct Report measure calculation and the iQIES QM Report measure calculation. Using the definitions from *Table 7-8*, the following steps are used to calculate the measure.

1. **Determine the denominator count**. Select all IRF stays during the reporting period.

2. **Determine the numerator count.** Include the total number of IRF stays in the numerator count if both of the following criteria (2.1 and 2.2) are met:

    2.1. The facility conducted a drug regimen review on admission which resulted in one of the following three scenarios:

        2.1.1. No potential or actual clinically significant medication issues were found during the review (N2001 = [0]); or

        2.1.2. Potential or actual clinically significant medication issues were found during the review (N2001 = [1]) and a physician (or physician-designee) was contacted and prescribed/recommended actions were completed by midnight of the next calendar day (N2003 = [1]); or

        2.1.3. The patient was not taking any medications (N2001 = [9]).

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

3. **Calculate the facility-level observed score**. Divide the facility's numerator count (Step 2) by its denominator count (Step 1) to obtain the facility-level observed score, and then multiply by 100 to obtain a percent value.

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

    4.1. 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.

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

iQIES QM Report Measure Calculations for Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF QRP (CMS ID: I021.01)

As previously stated, this measure is not risk-adjusted or stratified. The steps to calculate the iQIES Review and Correct Report can be applied to calculate the iQIES QM Report. Follow the steps provided above for the iQIES QM Report measure calculation for the Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF QRP (CMS ID: I021.01).

National Average Calculation for Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF ORP (CMS ID: I021.01)

Use the following steps to calculate the <u>IRF stay-level</u> (i.e., prevalence) national average:

1. Determine the total number of IRF stays in the nation meeting the denominator criteria. This is the denominator for the national average.
2. Identify IRF stays in the denominator of the national average that are included in the numerator for this measure. This is the numerator for the national average.
3. Divide the numerator (Step 2) by the denominator (Step 1). Then, multiply by 100 and round the percent value to one decimal place to obtain the national average.
   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 of the digits following the first decimal place.

Section 6.9: Transfer of Health Information to Provider – Post Acute Care (PAC) (CMS ID: I024.01) [14]

iQIES Review and Correct Report Measure Calculations for Transfer of Health Information to Provider – Post Acute Care (PAC) (CMS ID: I024.01)

Since this measure is not risk-adjusted or stratified, only the facility-level observed score is computed and the following steps can be applied to both the iQIES Review and Correct Report measure calculation and the iQIES QM Report measure calculation. Using the definitions from _Table 7-9_, the following steps are used to calculate the measure.

1. **Determine the denominator count**. Select all IRF stays within the reporting period with a discharge to a subsequent provider as determined by discharge location (Item 44D = [02, 03, 04, 06, 50, 51, 61, 62, 63, 64, 65, 66]).

2. **Determine the numerator count.** Include the total number of IRF stays in the numerator count where a reconciled medication list was transferred (A2121 = [1]).

3. **Calculate the facility-level observed score**. Divide the facility's numerator count (Step 2) by its denominator count (Step 1) to obtain the facility-level observed score, and then multiply by 100 to obtain a percent value.

4. **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.

iQIES QM Report Measure Calculations for Transfer of Health Information to Provider – Post Acute Care (PAC) (CMS ID: I024.01)

As previously stated, this measure is not risk-adjusted or stratified. The steps to calculate the iQIES Review and Correct Report can be applied to calculate the iQIES QM Report. Follow the steps provided above for the iQIES QM Report measure calculation for the Transfer of Health Information to Provider (CMS ID: I024.01).

National Average Calculation for Transfer of Health Information to Provider – Post Acute Care (PAC) (CMS ID: I024.01)

Use the following steps to calculate the IRF stay-level (i.e., prevalence) national average:

1. Determine the total number of IRF stays in the nation meeting the denominator criteria. This is the denominator for the national average.
2. Identify IRF stays in the denominator of the national average that are included in the numerator for this measure. This is the numerator for the national average.
3. Divide the numerator (Step 2) by the denominator (Step 1). Then, multiply by 100 and round the percent value to one decimal place to obtain the national average.

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[14] Please refer to Chapter 5, Section 5.1 on the effective date for data collection and implementation date for the iQIES reports.

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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 of the digits following the first decimal place.

Section 6.10: Transfer of Health Information to Patient – Post Acute Care (PAC) (CMS ID: I025.02)

iQIES Review and Correct Report Measure Calculations for Transfer of Health Information to Patient – Post Acute Care (PAC) (CMS ID: I025.02)

Since this measure is not risk-adjusted or stratified, only the facility-level observed score is computed and the following steps can be applied to both the iQIES Review and Correct Report measure calculation and the iQIES QM Report measure calculation. Using the definitions from *Table 7-10*, the following steps are used to calculate the measure.

1. **Determine the denominator count.** Select all IRF stays within the reporting period with a discharge to Home (private home/apt., board/care, assisted living, group home, transitional living, other residential care arrangements), as determined by discharge location (Item 44D = [01, 99]).

2. **Determine the numerator count.** Include the total number of IRF stays in the numerator count where a reconciled medication list was provided to the patient, family, and/or caregiver (A2123 = [1]).

3. **Calculate the facility-level observed score.** Divide the facility's numerator count (Step 2) by its denominator count (Step 1) to obtain the facility-level observed score, and then multiply by 100 to obtain a percent value.

4. **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.

iQIES QM Report Measure Calculations for Transfer of Health Information to Patient – Post Acute Care (PAC) (CMS ID: I025.02)

As previously stated, this measure is not risk-adjusted or stratified. The steps to calculate the iQIES Review and Correct Report can be applied to calculate the iQIES QM Report. Follow the steps provided above for the iQIES QM Report measure calculation for the Transfer of Health Information to Patient (CMS ID: I025.02).

National Average Calculation for Transfer of Health Information to Patient – Post Acute Care (PAC) (CMS ID: I025.02)

Use the following steps to calculate the IRF stay-level (i.e., prevalence) national average:

1. Determine the total number of IRF stays in the nation meeting the denominator criteria. This is the denominator for the national average.
2. Identify IRF stays in the denominator of the national average that are included in the numerator for this measure. This is the numerator for the national average.
3. Divide the numerator (step 2) by the denominator (step 1). Then, multiply by 100 and round the percent value to one decimal place to obtain the national average.
   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 of the digits following the first decimal place.

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Chapter 7
Measure Logic Specifications for Assessment-Based (IRF-PAI) Quality Measures

Table 7-1
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: I022.01)

Measure Description

This measure reports the percentage of IRF stays with Stage 2-4 pressure ulcers, 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 patient's IRF-PAI 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]

Numerator
The numerator is the total number of IRF stays for which the IRF-PAI indicates one or more new or worsened Stage 2-4 pressure ulcer(s) or unstageable pressure ulcers due to slough/eschar, non-removable dressing/device, or deep tissue injury at discharge, 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 total number of IRF stays with discharge date in the measure target period, which do not meet the exclusion criteria.

Exclusions
An IRF stay is excluded if:

    Data on new or worsened Stage 2, 3, 4, and unstageable pressure ulcers/injuries are missing at discharge:

- (M0300B1 = [-] or M0300B2 = [-]) and (M0300C1 = [-] or M0300C2 = [-]) and (M0300D1 = [-] or (M0300D2= [-]) and (M0300E1= [-] or M0300E2 = [-]) and (M0300F1= [-] or M0300F2 = [-]) and (M0300G1= [-] or M0300G2=[-])

    The patient died during the IRF stay:

- Item 44C = [0]

(continued)

Table 7-1 (continued)
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury (CMS ID: I022.01)

Covariates

Data for each covariate are derived from the IRF-PAI admission assessment data included in the target IRF stays.

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 GG0170C = [01, 02, 07, 09, 10, 88] ([01] = Dependent, [02] =Substantial/maximal assistance, [07] = Patient 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 GG0170C = [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. I0900 = [1] (checked)
      ii. 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 (25A) and weight (26A):**
   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 Item 25A = [0, 00, -] OR Item26A = [-] ([-] = No response available)

Where: BMI = (weight * 703 / height^2) = ([Item 26A] * 703) / (Item 25A^2) and the resulting value is rounded to one decimal place.[b]

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[a] Effective on October 1, 2022, the IRF-PAI Version 4.0 is used to collect and submit assessment data for the IRF QRP. A copy of the IRF-PAI Version 4.0 is available for download on the CMS IRF-PAI IRF QRP Manual website.

[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 7-2

Application of Percent of Residents Experiencing One or More Falls with Major Injury (Long Stay) (NQF #0674) (CMS ID: I013.01)[a]

Measure Description[b]
This quality measure reports the percentage of patients/residents who experience one or more falls with major injury (defined as bone fractures, joint dislocations, closed head injuries with altered consciousness, or subdural hematoma) during the IRF stay.

Measure Specifications[c]

Numerator

Total number of IRF stays in the denominator during the selected time window that experienced one or more falls that resulted in major injury: J1900C = [1] or [2].

Denominator

The total number of IRF stays with a discharge date in the measure target period, which do not meet the exclusion criteria.

Exclusions

An IRF stay is excluded if the number of falls with major injury was not coded at discharge:

- J1900C (Falls with Major Injury) = [-]

Covariates
None.

[a] This measure is NQF-endorsed for long-stay residents in nursing homes (http://www.qualityforum.org/QPS/0674), and an application of this quality measure is finalized for reporting by IRFs under the FY 2016 IRF PPS final rule (80 FR 47096-47100).

[b] Effective on October 1, 2022, the IRF-PAI Version 4.0 is used to collect and submit assessment data for the IRF QRP. A copy of the IRF-PAI Version 4.0 is available for download on the CMS IRF-PAI IRF QRP Manual website.

Table 7-3

Application of Percent of Long-Term Care Hospital (LTCH) Patients with an Admission and Discharge Functional Assessment and a Care Plan that Addresses Function (NQF #2631) (CMS ID: I008.02)[a]

Measure Description

This measure reports the percentage of all Inpatient Rehabilitation Facility (IRF) stay-level records with an admission and discharge functional assessment and a care plan that addresses function.

Measure Specifications[b]

Numerator

Total number of IRF stay-level records in the denominator meeting the following criteria on the selected functional assessment data:

For patients with a complete stay, the record is counted in the numerator if:

    a. a valid score indicating functional status (01 to 06) or a valid code indicating the activity was not attempted (07, 09, 10, 88) or a "^" indicating items affected by the skip pattern for each of the admission functional assessment items, and[c]

    b. a valid score indicating functional status (01 to 06) or a valid code indicating the activity was not attempted (07, 09, 10, 88) for a discharge goal indicating the patient's expected level of independence, for at least one self-care or mobility item, and

    c. a valid score indicating functional status (01 to 06) or a valid code indicating the activity was not attempted (07, 09, 10, 88) or a "^" indicating items affected by the skip pattern for each of the discharge functional assessment items.

For patients with an incomplete stay, the stay is counted in the numerator if:[d]

    a. a valid score indicating functional status (01 to 06) or a valid code indicating the activity was not attempted (07, 09, 10, 88) or a "^" indicating items affected by the skip pattern for each of the admission functional assessment items, and

    b. a valid score indicating functional status (01 to 06) or a valid code indicating the activity was not attempted (07, 09, 10, 88) for a discharge goal indicating the patient's expected level of independence, for at least one self-care or mobility item.

Denominator

The total number of IRF stays with a discharge date during the targeted 12 months (i.e., 4 quarters) time period.

Exclusions

There are no denominator exclusions for this measure.

Table 7-3 (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 (NQF #2631) (CMS ID: I008.02)

Covariates
None.

[a] This measure (I008.02) is an application of measure L009.03 and is finalized for reporting by IRFs under the [FY 2016 IRF PPS final rule (80 FR 47100-47111)](). This measure is not NQF endorsed.

[b] Effective on October 1, 2022, the IRF-PAI Version 4.0 is used to collect and submit assessment data for the IRF QRP. A copy of the IRF-PAI Version 4.0 is available for download on the [CMS IRF-PAI IRF QRP Manual website]().

[c] Admission and discharge functional assessment items included in this measure are three self-care items (GG0130A1/A3, GG0130B1/B3, and GG0130C1/C3) and twelve mobility items (GG0170B1/B3, GG0170C1/C3, GG0170D1/D3, GG0170E1/E3, GG0170F1/F3, GG0170I1/I3, GG0170J1/J3, GG0170K1/K3, GG0170R1/R3, GG0170RR1/RR3, GG0170S1/S3, GG0170SS1/SS3). All functional assessment items are included when selecting a patient's discharge goal (GG0130A2, GG0130B2, GG0130C2, GG0130E2, GG0130F2, GG0130G2, GG0130H2, GG0170A2, GG0170B2, GG0170C2, GG0170D2, GG0170E2, GG0170F2, GG0170G2, GG0170I2, GG0170J2, GG0170K2, GG0170L2, GG0170M2, GG0170N2, GG0170O2, GG0170P2, GG0170R2, GG0170S2).

[d] Incomplete stays are defined as those patients (1) discharged to acute care that results in the patient's absence from the IRF for longer than 3 calendar days, (2) who die while in the IRF, (3) who leave the IRF against medical advice, or (4) who had a stay of less than 3 days. All IRF stays that are not classified as incomplete stays are classified as complete stays. Refer to **Chapter 6**, **Section 6.3** for the steps for determining complete and incomplete stays.

Table 7-4

IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633)
(CMS ID: I009.05)[a]

Measure Description

This measure estimates the risk-adjusted mean change in self-care score between admission and discharge for Inpatient Rehabilitation Facility (IRF) Medicare patients.

Measure Specifications[b]

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 Inpatient Rehabilitation Facility (IRF) Medicare patients age 18 or older. The change in self-care score is calculated as the difference between the discharge self-care score and the admission self-care score.[c]

Denominator

The total number of IRF stays with a discharge date in the measure target period, which do not meet the exclusion criteria.

Exclusions

An IRF stay is excluded if:

Patient had an incomplete stay:

- Discharge destination (Item 44D = [02, 63, 65, 66]): Discharge to acute care that results in the patient's absence from the IRF for longer than 3 calendar days; or
- Died while in IRF (Item 44C = [0]); or
- Discharged against medical advice (Item 41 = [1]); or
- Length of stay is less than 3 days; i.e., Item 40 (Discharge Date) – Item 12 (Admission Date) is less than 3 days.

Patient is independent on all self-care activities at the time of admission:[d]

- Items used to identify these IRF stays 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).

Patient has any of the following medical conditions:[e]

- Coma, persistent vegetative state, complete tetraplegia, locked-in syndrome, severe anoxic brain damage, cerebral edema or compression of brain.

Patient is younger than age 18:

- Truncate (Item 12 (Admission Date) – Item 6 (Birth Date)).

Patient is discharged to hospice:

- Item 44D (Discharge destination/Living setting) = [50, 51].

Table 7-4 (continued)

IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients (NQF #2633) (CMS ID: I009.05)

Covariates
Data for each covariate are derived from the admission data included in the target IRF stays.

1. **Age group**
2. **Admission self-care score – continuous**
3. **Admission self-care score – squared**
4. **Primary diagnosis group**
5. **Interaction between admission self-care and primary diagnosis group**
6. **Prior acute or IRF primary diagnosis – surgical**
7. **Prior functioning: self-care**
8. **Prior functioning: indoor ambulation**
9. **Prior mobility device/ aids**
10. **Stage 2 pressure ulcer**
11. **Stage 3, 4, or unstageable pressure ulcer/injury**
12. **Cognitive function**
13. **Communication impairment**
14. **Bladder incontinence**
15. **Bowel incontinence**
16. **Nutritional approaches**
17. **Low BMI**
18. **Comorbidities**

See covariate details in **Appendix A**, *Table A-4* and *Table A-5* and the associated Risk Adjustment Appendix File.

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[a] This measure is NQF-endorsed for use in the IRF setting (http://www.qualityforum.org/QPS/2633) and finalized for reporting by IRFs under FY 2016 IRF PPS final rule (80 FR 47111-47117).

[b] Effective on October 1, 2022, the IRF-PAI Version 4.0 is used to collect and submit assessment data for the IRF QRP. A copy of the IRF-PAI Version 4.0 is available for download on the CMS IRF-PAI IRF QRP Manual website.

[c] Admission and discharge functional assessment items included in this measure: GG0130A1, GG0130B1, GG0130C1, GG0130E1, GG0130F1, GG0130G1, GG0130H1, GG0130A3, GG0130B3, GG0130C3, GG0130E3, GG0130F3, GG0130G3, and GG0130H3.

[d] All seven self-care items must = [06] on admission assessment for this exclusion to apply.

[e] The medical conditions are identified by: Impairment Group 0004.1221 or 0004.1222 or 0004.2221 or 0004.2222 on Item 21A; or specific ICD-10-CM codes on Item 22 or Item 24 (see **Appendix A**, *Table A-3*).

Table 7-5

IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05)[a]

Measure Description

This measure estimates the risk-adjusted mean change in mobility score between admission and discharge for Inpatient Rehabilitation Facility (IRF) Medicare patients.

Measure Specifications[b]

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 Inpatient Rehabilitation Facility (IRF) Medicare patients age 18 or older. The change in mobility score is calculated as the difference between the discharge mobility score and the admission mobility score.[c]

Denominator

The total number of IRF stays with a discharge date in the measure target period, which do not meet the exclusion criteria.

Exclusions

An IRF stay is excluded if:

Patient had an incomplete stay:
- Discharge destination (Item 44D = [02, 63, 65, 66]): Discharge to acute care that results in the patient's absence from the IRF for longer than 3 calendar days; or
- Died while in IRF (Item 44C = [0]); or
- Discharged against medical advice (Item 41 = [1]); or
- Length of stay is less than 3 days; i.e., Item 40 (Discharge Date) – Item 12 (Admission Date) is less than 3 days.

Patient is independent on all mobility activities at the time of the admission:[d]
- Items used to identify these IRF stays are as follows: Roll left and right (GG0170A1), Sit to lying (GG0170B1), Lying to sitting on side of bed (GG0170C1), Sit to stand (GG0170D1), Chair/bed-to-chair transfer (GG0170E1), Toilet transfer (GG0170F1), Car transfer (GG0170G1), Walk 10 feet (GG0170I1), Walk 50 feet with two turns (GG0170J1), Walk 150 feet (GG0170K1), Walking 10 feet on uneven surfaces (GG0170L1), 1 step (curb) (GG0170M1), 4 steps (GG0170N1), 12 steps (GG0170O1), and Picking up object (GG0170P1).

Patient has any of the following medical conditions:[e]
- Coma, persistent vegetative state, complete tetraplegia, locked-in syndrome, severe anoxic brain damage, cerebral edema, or compression of brain.

Patient is younger than age 18:
- Truncate (Item 12 (Admission Date) – Item 6 (Birth Date)).

Patient is discharged to hospice:
- Item 44D (Discharge destination/Living setting) = [50, 51].

(continued)

Table 7-5 (continued)
IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients (NQF #2634) (CMS ID: I010.05)

Covariates

Data for each covariate are derived from the admission data included in the target IRF stays.

1. **Age group**
2. **Admission mobility score – continuous**
3. **Admission mobility score – squared**
4. **Primary diagnosis group**
5. **Interaction between admission mobility and primary diagnosis group**
6. **Prior acute or IRF primary diagnosis – surgical**
7. **Prior functioning: indoor ambulation**
8. **Prior functioning: stair negotiation**
9. **Prior functioning: cognition**
10. **Prior mobility device/ aids**
11. **Stage 2 pressure ulcer**
12. **Stage 3, 4, or unstageable pressure ulcer/injury**
13. **Cognitive function**
14. **Communication impairment**
15. **Bladder incontinence**
16. **Bowel incontinence**
17. **Nutritional approaches**
18. **History of falls**
19. **Low BMI**
20. **Comorbidities**

See covariate details in **Appendix A**, *Table A-4* and *Table A-5* and the associated Risk Adjustment Appendix File.

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[a] This measure is NQF-endorsed for use in the IRF setting (http://www.qualityforum.org/QPS/2634) and finalized for reporting by IRFs under FY 2016 IRF PPS final rule (80 FR 47117-47118).

[b] Effective on October 1, 2022, the IRF-PAI Version 4.0 is used to collect and submit assessment data for the IRF QRP. A copy of the IRF-PAI Version 4.0 is available for download on the CMS IRF-PAI IRF QRP Manual website.

[c] Admission and discharge functional assessment items included in this measure are GG0170A1/A3, GG0170B1/B3, GG0170C1/C3, GG0170D1/D3, GG0170E1/E3, GG0170F1/F3, GG0170G1/G3, GG0170I1/I3, GG0170J1/J3, GG0170K1/K3, GG0170L1/L3, GG0170M1/M3, GG0170N1/N3,

GG0170O1/O3, GG0170P1/P3, GG0170R1/R3, and GG0170S1/S3.

[d] The fifteen mobility items listed for this exclusion must = [06] on admission for this exclusion to apply.

[e] The medical conditions are identified by: Impairment Group 0004.1221 or 0004.1222 or 0004.2221 or 0004.2222 on Item 21A; or specific ICD-10-CM codes on Item 22 or Item 24 (see **Appendix A**, *Table A-3*).

Table 7-6

IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05)[a]

Measure Description

This measure estimates the percentage of Inpatient Rehabilitation Facility (IRF) Medicare patients who meet or exceed an expected discharge self-care score.

Measure Specifications[b]

Numerator
The numerator is the number of patients in an IRF with a discharge self-care score that is equal to or higher than the calculated expected discharge self-care score.[c]

Denominator
The total number of IRF stays with a discharge date in the measure target period, which do not meet the exclusion criteria.

Exclusions
IRF stay is excluded if:
Patient had an incomplete stay:
- Discharge destination (Item 44D = [02, 63, 65, 66]): Discharge to acute care that results in the patient's absence from the IRF for longer than 3 calendar days; or
- Died while in IRF (Item 44C = [0]); or
- Discharged against medical advice (Item 41 = [1]); or
- Length of stay is less than 3 days; i.e., Item 40 (Discharge Date) – Item 12 (Admission Date) is less than 3 days.

Patient has any of the following medical conditions:[d]
- Coma, persistent vegetative state, complete tetraplegia, locked-in syndrome, severe anoxic brain damage, cerebral edema, or compression of brain.

Patient is younger than age 18:
- Truncate (Item 12 (Admission Date) – Item 6 (Birth Date)).

Patient is discharged to hospice:
- Item 44D (Discharge destination/Living setting) = [50, 51].

Covariates

Data for each covariate are derived from the admission data included in the target IRF stays.

1. **Age group**
2. **Admission self-care score – continuous**
3. **Admission self-care score – squared**

(continued)

Table 7-6 (continued)

IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients (NQF #2635) (CMS ID: I011.05)

Covariates (continued)

4. **Primary diagnosis group**

5. **Interaction between admission self-care and primary diagnosis group**

6. **Prior acute or IRF primary diagnosis – surgical**

7. **Prior functioning: self-care**

8. **Prior functioning: indoor ambulation**

9. **Prior mobility device/ aids**

10. **Stage 2 pressure ulcer**

11. **Stage 3, 4, or unstageable pressure ulcer/injury**

12. **Cognitive function**

13. **Communication impairment**

14. **Bladder incontinence**

15. **Bowel incontinence**

16. **Nutritional Approaches**

17. **Low BMI**

18. **Comorbidities**

See covariate details in **Appendix A**, *Table A-4* and *Table A-5* and the associated Risk Adjustment Appendix File.

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[a] This measure is NQF-endorsed for use in the IRF setting (http://www.qualityforum.org/QPS/2635) and finalized for reporting by IRFs under the FY 2016 IRF PPS final rule (80 FR 47118-47119).

[b] Effective on October 1, 2022, the IRF-PAI Version 4.0 is used to collect and submit assessment data for the IRF QRP. A copy of the IRF-PAI Version 4.0 is available for download on the CMS IRF-PAI IRF QRP Manual website.

[c] Discharge functional assessment items included in this measure are: GG0130A3, GG0130B3, GG0130C3, GG0130E3, GG0130F3, GG0130G3, and GG0130H3.

[d] The medical conditions are identified by: Impairment Group 0004.1221 or 0004.1222 or 0004.2221 or 0004.2222 on Item 21A; or specific ICD-10-CM codes on Item 22 or Item 24 (see **Appendix A**, *Table A-3*).

Table 7-7

IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.05)[a]

Measure Description
This measure estimates the percentage of Inpatient Rehabilitation Facility (IRF) Medicare patients who meet or exceed an expected discharge mobility score.

Measure Specifications[b]

Numerator

The numerator is the number of patients in an IRF with a discharge mobility score that is equal to or higher than the calculated expected discharge mobility score.[c]

Denominator

The total number of IRF stays with a discharge date in the measure target period, which do not meet the exclusion criteria.

Exclusions

An IRF stay is excluded if:

Patient had an incomplete stay:
- Discharge destination (Item 44D = [02, 63, 65, 66]): Discharge to acute care that results in the patient's absence from the IRF for longer than 3 calendar days; or
- Died while in IRF (Item 44C = [0]); or
- Discharged against medical advice (Item 41 = [1]); or
- Length of stay is less than 3 days; i.e., Item 40 (Discharge Date) – Item 12 (Admission Date) is less than 3 days.

Patient has any of the following medical conditions:[d]
- Coma, persistent vegetative state, complete tetraplegia, locked-in syndrome, severe anoxic brain damage, cerebral edema, or compression of brain.

Patient is younger than age 18:
- Truncate (Item 12 (Admission Date) – Item 6 (Birth Date)).

Patient is discharged to hospice:
- Item 44D (Discharge destination/Living setting) = [50, 51].

Covariates

Data for each covariate are derived from the admission data included in the target IRF stays.

1. **Age group**
2. **Admission mobility score – continuous**
3. **Admission mobility score – squared**
4. **Primary diagnosis group**

Table 7-7 (continued)

IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients (NQF #2636) (CMS ID: I012.05)

Covariates (continued)

5. **Interaction between admission mobility and primary diagnosis group**
6. **Prior acute or IRF primary diagnosis – surgical**
7. **Prior functioning: indoor ambulation**
8. **Prior functioning: stair negotiation**
9. **Prior functioning: cognition**
10. **Prior mobility device/ aids**
11. **Stage 2 pressure ulcer**
12. **Stage 3, 4, or unstageable pressure ulcer/injury**
13. **Cognitive function**
14. **Communication impairment**
15. **Bladder incontinence**
16. **Bowel incontinence**
17. **Nutritional approaches**
18. **History of falls**
19. **Low BMI**
20. **Comorbidities**

See covariate details in **Appendix A**, *Table A-4* and *Table A-5* and the associated Risk Adjustment Appendix File.

[a] This measure is NQF-endorsed for use in the IRF setting (http://www.qualityforum.org/QPS/2636) and finalized for reporting by IRFs under the FY 2016 IRF PPS final rule (80 FR 47119-47120).

[b] Effective on October 1, 2022, the IRF-PAI Version 4.0 is used to collect and submit assessment data for the IRF QRP. A copy of the IRF-PAI Version 4.0 is available for download on the CMS IRF-PAI IRF QRP Manual website.

[c] Functional assessment items included in this measure on the assessment are GG0170A3, GG0170B3, GG0170C3, GG0170D3, GG0170E3, GG0170F3, GG0170G3, GG0170I3, GG0170J3, GG0170K3, GG0170L3, GG0170M3, GG0170N3, GG0170O3, GG0170P3, GG0170R3, and GG0170S3.

[d] The medical conditions are identified by: Impairment Group 0004.1221 or 0004.1222 or 0004.2221 or 0004.2222 on Item 21A; or specific ICD-10-CM codes on Item 22 or Item 24 (see **Appendix A**, *Table A-3)*.

Table 7-8
Drug Regimen Review Conducted with Follow-Up for Identified Issues – PAC IRF QRP (CMS ID: I021.01)[a]

Measure Description
This measure reports the percentage of patient/resident 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 that stay.

Measure Specifications[b]

Numerator

Total number of IRF stays 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 following three scenarios being true:
   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 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 patient 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 medication issues were identified since admission or patient was not taking any medications (N2005 = [9]).

Denominator

All IRF stays during the reporting period.

Exclusions

There are no denominator exclusions for this measure.

Covariates
None.

[a] This measure was finalized for reporting by IRFs under the FY 2017 IRF PPS final rule (81 FR 24178).

[b] Effective on October 1, 2022, the IRF-PAI Version 4.0 is used to collect and submit assessment data for the IRF QRP. A copy of the IRF-PAI Version 4.0 is available for download on the CMS IRF-PAI IRF QRP Manual website.

Table 7-9
Transfer of Health Information to the Provider – Post Acute Care (PAC) (CMS ID: I024.01)[a]

Measure Description
This measure reports the percentage of IRF stays indicating a current reconciled medication list was transferred to the subsequent provider at the time of discharge. For patients 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 patient's IRF-PAI 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 for which the IRF-PAI 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 IRF stays with a discharge date in the measure target period, ending in discharge to a short-term general hospital, a SNF, intermediate care, home under care of an organized home health service organization or hospice, hospice in an institutional facility, a swing bed, another 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 location item, 44D, of the IRF-PAI assessment:
(44D = [02, 03, 04, 06, 50, 51, 61, 62, 63, 64, 65, 66]).

Exclusions

There are no denominator exclusions for this measure.

Covariates
None.

[a] This measure was finalized for reporting by IRFs under the FY 2020 IRF PPS final rule (84 FR 39099).

[b] Effective on October 1, 2022, the IRF-PAI Version 4.0 is used to collect and submit assessment data for the IRF QRP. A copy of the IRF-PAI Version 4.0 is available for download on the CMS IRF-PAI IRF QRP Manual website.

Table 7-10
Transfer of Health Information to the Patient – Post Acute Care (PAC)
(CMS ID: I025.02)[a]

Measure Description
This measure reports the percentage of IRF stays indicating a current reconciled medication list was transferred to the patient, family, and/or caregiver at the time of discharge. For patients 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 patient's IRF-PAI discharge assessment items for provision of a current reconciled medication list to the patient, family, and/or caregiver at the time of discharge.

Numerator

The numerator is the number of stays for which the IRF-PAI indicated that the following is true:

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

Denominator

The denominator is the total number of IRF stays with a discharge date in the measure target period, ending in discharge to Home (private home/apartment, board/care, assisted living, group home, transitional living, or other residential care arrangements). Discharge to one of these locations is based on response to the discharge location item, 44D, of the IRF-PAI assessment: (44D = [01, 99]).

Exclusions

There are no denominator exclusions for this measure.

Covariates
None.

[a] This measure was finalized for reporting by IRFs under the FY 2020 IRF PPS final rule (84 FR 39099). An update to the denominator for the TOH to the Patient measure was finalized in the FY 2022 IRF PPS final rule (84 FR 43296 – 42397).

[b] Effective on October 1, 2022, the IRF-PAI Version 4.0 is used to collect and submit assessment data for the IRF QRP. A copy of the IRF-PAI Version 4.0 is available for download on the CMS IRF-PAI IRF QRP Manual website.

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Appendix A:
Model
Parameters

Appendix A provides the following information:

- Tables listing the covariates and associated IRF-PAI items used to calculate each covariate for assessment-based quality measures requiring risk-adjustment (**Section A.1**).

- Overview of the Risk-Adjustment Appendix File for the Inpatient Rehabilitation Facility Quality Reporting Program Measure Calculations and Reporting User's Manual (Risk-Adjustment Appendix File) (**Section A.2**).

- Procedure on how to use the Inpatient Rehabilitation 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 A.3**).

The risk-adjusted quality measures addressed in this Appendix are listed in ***Table A-1*** below. Note that a "✓" indicates that the national average observed score or covariate values are included in the risk-adjustment calculation for that quality measure. An "n/a" indicates that it is not applicable in the risk-adjustment calculation for that quality measure.

Table A-1
IRF-PAI Quality Measures Requiring National Average Observed Scores and Covariate Values for Risk-Adjustment

Quality Measure	NQF #	CMS ID	Measure Reference Name	National Average Observed Scores*	Covariate Values*
Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury	n/a	I022.01	Pressure Ulcer/Injury	✓	✓
IRF Functional Outcome Measure: Change in Self-Care Score for Medical Rehabilitation Patients	2633	I009.05	Change in Self-Care	✓	✓
IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients	2634	I010.05	Change in Mobility	✓	✓
IRF Functional Outcome Measure: Discharge Self-Care Score for Medical Rehabilitation Patients	2635	I011.05	Discharge Self-Care Score	n/a	✓
IRF Functional Outcome Measure: Discharge Mobility Score for Medical Rehabilitation Patients	2636	I012.05	Discharge Mobility Score	n/a	✓

*National Average Observed Scores and Intercept/Coefficient values provided in Risk-Adjustment Appendix File

Section A.1: Covariate Tables

This section contains tables listing the covariates and associated IRF-PAI items used to calculate each covariate for assessment-based quality measures requiring risk-adjustment.

Table A-2
Risk-Adjustment Covariates for the Changes in Skin Integrity Post-Acute Care: Pressure Ulcer/Injury

Covariate*	IRF-PAI Item(s) and Calculations
Model Intercept	—
Functional Limitation	= 1 if GG0170C = [01, 02, 07, 09, 10, 88] = 0 if GG0170C = [03, 04, 05, 06, -]
Bowel Incontinence	= 1 if H0400 = [1, 2, 3] = 0 if H0400 = [0, 9, -]

Diabetes or PVD/PAD	= 1 if any of the following are true:
	    • I0900 = [1] (checked)
	    • I2900 = [1] (checked)
	= 0 if I0900 = [0, -] AND I2900 = [0, -]

Low BMI	= 1 if BMI ≥ [12.0] AND ≤ [19.0] = 0 if BMI < [12.0] OR BMI > [19.0] = 0 if Item 25A = [0, 00, -] OR Item 26A = [-] Where: BMI = (weight * 703 / height2) = ([Item 26A] * 703) / (Item 25A2) and the resulting value is rounded to one decimal place.

*Covariates are based on IRF-PAI admission items.

Table A-3
Etiologic Diagnosis or Comorbid Conditions – ICD-10-CM Codes

Etiologic Diagnosis (Item 22) or Comorbid Conditions (Item 24)	ICD-10-CM Codes			
Coma	E11.11, R40.20, R40.2110, R40.2111, R40.2112, R40.2113, R40.2114, R40.2120, R40.2121, R40.2122, R40.2123, R40.2124,	R40.2210, R40.2211, R40.2212, R40.2213, R40.2214, R40.2220, R40.2221, R40.2222, R40.2223, R40.2224,	R40.2310, R40.2311, R40.2312, R40.2313, R40.2314, R40.2320, R40.2321, R40.2322, R40.2323, R40.2324, R40.2340, R40.2341, R40.2342,	R40.2343, R40.2344, R40.2430, R40.2431, R40.2432 R40.2433, R40.2434, R40.2440, R40.2441, R40.2442, R40.2443 R40.2444
Persistent vegetative state	R40.3			
Severe brain damage	G93.9			
Complete tetraplegia	G82.51, 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			

Note that a "✓" under each measure in **Table A-4** below indicates that the covariate is included in the risk-adjustment calculation for that quality measure. An "n/a" indicates that the covariate is not included in the risk-adjustment calculation for that quality measure. The intercept and coefficient values are available in each of the respective quality measure tabs in the Risk-Adjustment Appendix File.

Table A-4
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Model Intercept	—	—	✓	✓	✓	✓
Age Group	<35 years	Truncate (Item 12 – Item 6) = age; If age <35 years = 1; else = 0	✓	✓	✓	✓
Age Group	35–44 years	Truncate (Item 12 – Item 6) = age; If age 35–44 years = 1; else = 0	✓	✓	✓	✓
Age Group	45–54 years	Truncate (Item 12 – Item 6) = age; If age 45–54 years = 1; else = 0	✓	✓	✓	✓
Age Group	55–64 years	Truncate (Item 12 – Item 6) = age; If age 55–64 years = 1; else = 0	✓	✓	✓	✓
Age Group (reference category)	65–74 years (reference category)	Truncate (Item 12 – Item 6) = age; If age 65–74 years = 1; else = 0	n/a	n/a	n/a	n/a
Age Group	75–84 years	Truncate (Item 12 – Item 6) = age; If age 75–84 years = 1; else = 0	✓	✓	✓	✓
Age Group	85–90 years	Truncate (Item 12 – Item 6) = age; If age 85–90 years = 1; else = 0	✓	✓	✓	✓

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Age Group	>90 years	Truncate (Item 12 – Item 6) = age; If age >90 years = 1; else = 0	✓	✓	✓	✓
Admission Self-Care - continuous form		Note: use recoded item values (valid codes = 01, 02, 03, 04, 05, 06); self-care scores can range from 7 to 42.[b] Admission Self-Care Score = (GG0130A1 + GG0130B1 + GG0130C1 + GG0130E1 + GG0130F1 + GG0130G1 + GG0130H1)	✓	n/a	✓	n/a
Admission Self-Care - squared form		Note: use recoded values (valid codes = 01, 02, 03, 04, 05, 06); self-care scores can range from 7 to 42.[b] Admission Self-Care Score Squared = (GG0130A1 + GG0130B1 + GG0130C1 + GG0130E1 + GG0130F1 + GG0130G1 + GG0130H1) * (GG0130A1 + GG0130B1 + GG0130C1 + GG0130E1 + GG0130F1 + GG0130G1 + GG0130H1)	✓	n/a	✓	n/a

(continued)

Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Admission Mobility - continuous form		Note: use recoded values (valid codes = 01, 02, 03, 04, 05, 06); mobility scores can range from 15 to 90.[b] Admission Mobility Score = (GG0170A1 + GG0170B1 + GG0170C1 + GG0170D1 + GG0170E1 + GG0170F1 + GG0170G1 + GG0170I1 + GG0170J1 + GG0170K1 + GG0170L1 + GG0170M1 + GG0170N1 + GG0170O1 + GG0170P1)	n/a	✓	n/a	✓
Admission Mobility - squared form		Note: use recoded values (valid codes = 01, 02, 03, 04, 05, 06); mobility scores can range from 15 to 90.[b] Admission Mobility Squared = (GG0170A1 + GG0170B1 + GG0170C1 + GG0170D1 + GG0170E1 + GG0170F1 + GG0170G1 + GG0170I1 + GG0170J1 + GG0170K1 + GG0170L1 + GG0170M1 + GG0170N1 + GG0170O1 + GG0170P1) * (GG0170A1 + GG0170B1 + GG0170C1 + GG0170D1 + GG0170E1 + GG0170F1 + GG0170G1 + GG0170I1 + GG0170J1 + GG0170K1 + GG0170L1 + GG0170M1 + GG0170N1 + GG0170O1 + GG0170P1)	n/a	✓	n/a	✓

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Primary Diagnosis Group (reference category)	Hip and Knee Replacements (reference category)[c]	= 1 if Item 21A = 0008.51 or 0008.52 or 0008.61 or 0008.62 or 0008.71 or 0008.72; else = 0[c]	n/a	n/a	n/a	n/a
Primary Diagnosis Group	Stroke	= 1 if Item 21A = 0001.1 or 0001.2 or 0001.3 or 0001.4 or 0001.9; else = 0	✓	✓	✓	✓
Primary Diagnosis Group	Non-Traumatic Brain Dysfunction	= 1 if Item 21A = 0002.1 or 0002.9; else = 0	✓	✓	✓	✓
Primary Diagnosis Group	Traumatic Brain Dysfunction	= 1 if Item 21A = 0002.21 or 0002.22 or 0014.1 or 0014.2; else = 0	✓	✓	✓	✓
Primary Diagnosis Group	Non-Traumatic Spinal Cord Dysfunction	= 1 if Item 21A = 0004.110 or 0004.111 or 0004.112 or 0004.120 or 0004.1211 or 0004.1212 or 0004.130; else = 0	✓	✓	✓	✓
Primary Diagnosis Group	Traumatic Spinal Cord Dysfunction	= 1 if Item 21A = 0004.210 or 0004.211 or 0004.212 or 0004.220 or 0004.2211 or 0004.2212 or 0004.230 or 0014.3; else = 0	✓	✓	✓	✓
Primary Diagnosis Group	Progressive Neurological Conditions	= 1 if Item 21A = 0003.1 or 0003.2; else = 0	✓	✓	✓	✓

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility
Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Primary Diagnosis Group	Other Neurological Conditions	= 1 if Item 21A = 0003.3 or 0003.4 or 0003.5 or 0003.8 or 0003.9; else = 0	✓	✓	✓	✓
Primary Diagnosis Group	Fractures and Other Multiple Trauma	= 1 if Item 21A = 0008.11 or 0008.12 or 0008.2 or 0008.3 or 0008.4 or 0014.9; else = 0	✓	✓	✓	✓
Primary Diagnosis Group	Amputation	= 1 if Item 21A = 0005.1 or 0005.2 or 0005.3 or 0005.4 or 0005.5 or 0005.6 or 0005.7 or 0005.9; else = 0	✓	✓	✓	✓
Primary Diagnosis Group	Other Orthopedic Conditions	= 1 if Item 21A = 0006.1 or 0006.2 or 0006.9 or 0007.1 or 0007.2 or 0007.3 or 0007.9 or 0008.9; else = 0	✓	✓	✓	✓
Primary Diagnosis Group	Debility, Cardiorespiratory Conditions	= 1 if Item 21A = 0009 or 0010.1 or 0010.9 or 0016 or 0017.4 or 0017.51 or 0017.52; else = 0	✓	✓	✓	✓
Primary Diagnosis Group	Medically Complex Conditions	= 1 if Item 21A = 0011 or 0012.1 or 0012.9 or 0013 or 0015 or 0017.1 or 0017.2 or 0017.31 or 0017.32 or 0017.6 or 0017.7 or 0017.8 or 0017.9; else = 0	✓	✓	✓	✓

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Interaction of Admission Self-Care Score and Primary Diagnosis Group	Hip and Knee Replacements (reference category)	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Hip and Knee Replacements (see above)	n/a	n/a	n/a	n/a
Interaction of Admission Self-Care Score and Primary Diagnosis Group	Stroke	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Stroke (see above)	✓	n/a	✓	n/a
Interaction of Admission Self-Care Score and Primary Diagnosis Group	Non-Traumatic Brain Dysfunction	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Non-Traumatic Brain Dysfunction (see above)	✓	n/a	✓	n/a
Interaction of Admission Self-Care Score and Primary Diagnosis Group	Traumatic Brain Dysfunction	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Traumatic Brain Dysfunction (see above)	✓	n/a	✓	n/a
Interaction of Admission Self-Care Score and Primary Diagnosis Group	Non-Traumatic Spinal Cord Dysfunction	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Non-Traumatic Spinal Cord Dysfunction (see above)	✓	n/a	✓	n/a

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Interaction of admission self-care score and primary diagnosis group	Traumatic Spinal Cord Dysfunction	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Traumatic Spinal Cord Dysfunction (see above)	✓	n/a	✓	n/a
Interaction of admission self-care score and primary diagnosis group	Progressive Neurological Conditions	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Progressive Neurological Conditions (see above)	✓	n/a	✓	n/a
Interaction of admission self-care score and primary diagnosis group	Other Neurological Conditions	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Other Neurological Conditions (see above)	✓	n/a	✓	n/a
Interaction of admission self-care score and primary diagnosis group	Fractures and Other Multiple Trauma	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Fractures and Other Multiple Trauma (see above)	✓	n/a	✓	n/a
Interaction of admission self-care score and primary diagnosis group	Amputation	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Amputation (see above)	✓	n/a	✓	n/a

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Interaction of admission self-care score and primary diagnosis group	Other Orthopedic Conditions	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Other Orthopedic Conditions (see above)	✓	n/a	✓	n/a
Interaction of admission self-care score and primary diagnosis group	Debility, Cardiorespiratory Conditions	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Debility, Cardiorespiratory Conditions (see above)	✓	n/a	✓	n/a
Interaction of admission self-care score and primary diagnosis group	Medically Complex Conditions	Admission self-care: continuous form (see above) multiplied by Primary diagnosis: Medically Complex Conditions (see above)	✓	n/a	✓	n/a
Interaction of admission mobility score and primary diagnosis group	Hip and Knee Replacements (reference category)	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Hip and Knee Replacements (see above)	n/a	n/a	n/a	n/a
Interaction of admission mobility score and primary diagnosis group	Stroke	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Stroke (see above)	n/a	✓	n/a	✓

(continued)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Interaction of Admission Mobility Score and Primary Diagnosis Group	Non-Traumatic Brain Dysfunction	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Non-Traumatic Brain Dysfunction (see above)	n/a	✓	n/a	✓
Interaction of Admission Mobility Score and Primary Diagnosis Group	Traumatic Brain Dysfunction	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Traumatic Brain Dysfunction (see above)	n/a	✓	n/a	✓
Interaction of Admission Mobility Score and Primary Diagnosis Group	Non-Traumatic Spinal Cord Dysfunction	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Non-Traumatic Spinal Cord Dysfunction (see above)	n/a	✓	n/a	✓
Interaction of Admission Mobility Score and Primary Diagnosis Group	Traumatic Spinal Cord Dysfunction	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Traumatic Spinal Cord Dysfunction (see above)	n/a	✓	n/a	✓
Interaction of Admission Mobility Score and Primary Diagnosis Group	Progressive Neurological Conditions	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Progressive Neurological Conditions (see above)	n/a	✓	n/a	✓

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Interaction of Admission Mobility Score and Primary Diagnosis Group	Other Neurological Conditions	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Other Neurological Conditions (see above)	n/a	✓	n/a	✓
Interaction of Admission Mobility Score and Primary Diagnosis Group	Fractures and Other Multiple Trauma	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Fractures and Other Multiple Trauma (see above)	n/a	✓	n/a	✓
Interaction of Admission Mobility Score and Primary Diagnosis Group	Amputation	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Amputation (see above)	n/a	✓	n/a	✓
Interaction of Admission Mobility Score and Primary Diagnosis Group	Other Orthopedic Conditions	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Other Orthopedic Conditions (see above)	n/a	✓	n/a	✓
Interaction of Admission Mobility Score and Primary Diagnosis Group	Debility, Cardiorespiratory Conditions	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Debility, Cardiorespiratory Conditions (see above)	n/a	✓	n/a	✓

(continued)

Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Interaction of Admission Mobility Score and Primary Diagnosis Group	Medically Complex Conditions	Admission mobility: continuous form (see above) multiplied by Primary diagnosis: Medically Complex Conditions (see above)	n/a	✓	n/a	✓
Prior Surgery	Surgical	=1 if J2000 = 1; else = 0	✓	✓	✓	✓
Prior Functioning: Self-Care	Dependent	=1 if GG0100A = 1; else = 0	✓	n/a	✓	n/a
Prior Functioning: Self-Care	Some help	=1 if GG0100A = 2; else = 0	✓	n/a	✓	n/a
Prior Functioning: Indoor Ambulation	Dependent, Some Help	=1 if GG0100B =1 or GG0100B = 2; else = 0	✓	n/a	✓	n/a
Prior Functioning: Indoor Ambulation	Dependent	=1 if GG0100B =1 or GG0100B =9; else = 0	n/a	✓	n/a	✓
Prior Functioning: Indoor Ambulation	Some Help	=1 if GG0100B = 2; else = 0	n/a	✓	n/a	✓
Prior Functioning: Stair Negotiation	Dependent	=1 if GG0100C = 1 or GG0100C = 9; else = 0	n/a	✓	n/a	✓

Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Prior Functioning: Stair Negotiation	Some Help	=1 if GG0100C = 2; else = 0	n/a	✓	n/a	✓
Prior Functioning: Cognition	Dependent	=1 if GG0100D = 1; else = 0	n/a	✓	n/a	✓
Prior Mobility Device/Aid	Walker	=1 if GG0110D = 1; else = 0	✓	✓	✓	✓
Prior Mobility Device/Aid	Manual Wheelchair or Motorized Wheelchair and/or Scooter	=1 if GG0110A = 1 or GG0110B = 1; else = 0	✓	✓	✓	✓
Prior Mobility Device/Aid	Mechanical Lift	=1 if GG0110C =1; else = 0	✓	✓	✓	✓
Prior Mobility Device/Aid	Orthotics/Prosthetics	=1 if GG0110E = 1; else = 0	✓	✓	✓	✓
Stage 2 Pressure Ulcer – Admission	Present	=1 if M0300B1 ≥ 1; else = 0	✓	✓	✓	✓
Stage 3, 4 or Unstageable Pressure Ulcer/Injury - Admission	Present	=1 if M0300C1 ≥ 1 or M0300D1 ≥ 1 or M0300E1 ≥ 1 or M0300F1 ≥ 1 or M0300G1 ≥ 1;	✓	✓	✓	✓

(continued)

Covariate	Covariate	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Cognitive Function: Brief Interview for Mental Status score - Admission	Moderately Impaired	=1 if C0500 = 8, 9, 10, 11, or 12 or ([C0900A = 1 and C0900B = 1] or [C0900B = 1 and C0900C = 1] or [C0900A = 1 and C0900C = 1]) or [C0900A = 1 and C0900E = 1] or [C0900B = 1 and C0900E = 1] or [C0900C = 1 and C0900E = 1]); else = 0	✓	✓	✓	✓
Cognitive Function: Brief Interview for Mental Status score - Admission	Severely Impaired	=1 if C0500 = ≤ 7 or (C0900Z = 1 or ([C0900A=1 and C0900B = 0, and C0900C = 0, and C0900E = 0] or [C0900B=1 and C0900A = 0, and C0900C = 0, and C0900E = 0] or [C0900C=1 and C0900A = 0, and C0900B = 0, and C0900E = 0] or [C0900E=1 and C0900A = 0, and C0900B = 0, and C0900C = 0]); else = 0	✓	✓	✓	✓
Communication Impairment - Admission	Moderate to Severe	=1 if BB0800 = 1 or BB0800 = 2 or BB0700 = 1 or BB0700 = 2; else = 0	✓	✓	✓	✓
Communication Impairment - Admission	Mild	=1 if BB0800 = 3 or BB0700 = 3; else = 0	n/a	✓	n/a	✓

(continued)

Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Bladder Incontinence - Admission	Less than Daily, Daily, Always Incontinent	=1 if H0350 = 2 or H0350 = 3 or H0350 = 4; else = 0	✓	✓	✓	✓
Bladder Incontinence - Admission	Indwelling Urinary Catheter	=1 if H0350 = 9; else = 0	✓	n/a	✓	n/a
Bowel Incontinence - Admission	Always Incontinent	=1 if H0400 = 3; else = 0	✓	✓	✓	✓
Bowel Incontinence - Admission	Occasionally or Frequently Incontinent	=1 if H0400 = 1 or H0400 = 2; else = 0	✓	✓	✓	✓
Health Conditions - Admission	History of Falls	= 1 if J1750 = 1; else = 0	n/a	✓	n/a	✓
Nutritional Approaches - Admission	Parenteral/IV feeding or Feeding Tube	= 1 if K0520A = 1 or K0520B = 1 (checked); else = 0	✓	✓	✓	✓
Nutritional Approaches - Admission	Swallowing Status - Mechanically altered diet	= 1 if K0520C = 1 (checked); else = 0	✓	n/a	✓	n/a

Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Low BMI		= 1 if BMI ≥ [12.0] AND ≤ [19.0] = 0 if BMI < [12.0] OR BMI > [19.0] = 0 if Item 25A = [0, 00, -] OR Item 26A = [-]; else = 0. Where: BMI = (weight * 703 / height^2) = ([Item 26A] * 703) / (Item 25A^2) and the resulting value is rounded to one decimal place.	✓	✓	✓	✓
Condition Group 1	Opportunistic Infections (HCC6)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC6; =0 if item 21A = 0017.1; else = 0	n/a	✓	n/a	✓

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Condition Group 2	Metastatic Cancer and Acute Leukemia (HCC8)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC8; =0 if item 21A = 0017.2; else = 0	✓	✓	✓	✓
Condition Group 3	Lung and Other Severe Cancers (HCC9)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC9; =0 if item 21A = 0017.2; else = 0	✓	✓	✓	✓
Condition Group 4	Lymphoma and Other Cancers (HCC10)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC10; =0 if item 21A = 0017.2; else = 0	✓	✓	✓	✓
Condition Group 5	Diabetes with Chronic Complications (HCC18)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC18; =0 if item 21A = 0017.31, 0017.32; else = 0	✓	✓	✓	✓
Condition Group 6	Diabetes without Complication (HCC19)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC19; =0 if item 21A = 0017.31, 0017.32; else = 0	✓	✓	✓	✓

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility
Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Condition Group 7	Protein-Calorie Malnutrition (HCC21)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC21; =0 if item 21A = 0017.31, 0017.32; else = 0	✓	n/a	✓	n/a
Condition Group 8	Other Significant Endocrine and Metabolic Disorders (HCC23)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC23; else = 0	✓	n/a	✓	n/a
Condition Group 9	Intestinal Obstruction/Perforation (HCC33)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC33; else = 0	✓	n/a	✓	n/a
Condition Group 10	Bone/Joint/Muscle Infections/Necrosis (HCC39)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC39; =0 if item 21A = 0017.1, 0017.7; else = 0	✓	✓	✓	✓
Condition Group 11	Severe Hematological Disorders (HCC46)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC46; else = 0	n/a	✓	n/a	✓
Condition Group 12	Dementia With Complications (HCC51)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC51; =0 if item 21A = 0002.1, 0002.9; else = 0	✓	✓	✓	✓
Condition Group 13	Dementia Without Complications (HCC52)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC52; =0 if item 21A = 0002.1, 0002.9; else = 0	✓	✓	✓	✓

(continued)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Condition Group 14	Mental Health Disorders: Schizophrenia (HCC57)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC57; else = 0	n/a	✓	n/a	✓
Condition Group 15	Reactive and Unspecified Psychosis (HCC58)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC58; else = 0	n/a	✓	n/a	✓
Condition Group 16	Major Depressive, Bipolar, and Paranoid Disorders (HCC59)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC59; else = 0	✓	✓	✓	✓
Condition Group 17	Personality Disorders (HCC60)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC60; else = 0	n/a	✓	n/a	✓
Condition Group 18	Tetraplegia (HCC70)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC70; =0 if Primary Diagnosis Group= Non- traumatic spinal cord dysfunction or Traumatic spinal cord dysfunction; else = 0[d]	✓	✓	✓	✓
Condition Group 19	Paraplegia (HCC71)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC71; =0 if Primary Diagnosis Group= Non- traumatic spinal cord dysfunction or Traumatic spinal cord dysfunction; else = 0	✓	✓	✓	✓

(continued)

Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Condition Group 20	Spinal Cord Disorders/Injuries (HCC72)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC72; =0 if Primary Diagnosis Group= Non- traumatic spinal cord dysfunction or Traumatic spinal cord dysfunction; else = 0	✓	✓	✓	✓
Condition Group 21	Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease (HCC73)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC73; =0 if item 21A = 0003.8, 0003.9; else = 0	✓	✓	✓	✓
Condition Group 22	Cerebral Palsy (HCC74)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC74; =0 if item 21A = 0003.5; else = 0	✓	✓	✓	✓
Condition Group 23	Muscular Dystrophy (HCC76)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC76; =0 if item 21A = 0003.8; else = 0	n/a	✓	n/a	✓
Condition Group 24	Multiple Sclerosis (HCC77)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC77; =0 if item 21A = 0003.1; else = 0	✓	✓	✓	✓
Condition Group 25	Parkinson's and Huntington's Diseases (HCC78)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC78; =0 if item 21A = 0003.2 or if item 22A, 22B or 22C = G10; else = 0	✓	✓	✓	✓

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Condition Group 26	Seizure Disorders and Convulsions (HCC79)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC79; else = 0	✓	✓	✓	✓
Condition Group 27	Angina Pectoris (HCC88)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC88; = 0 if item 21A = 0009; else = 0	n/a	✓	n/a	✓
Condition Group 28	Intracranial Hemorrhage (HCC99); Ischemic or Unspecified Stroke (HCC100); Hemiplegia/Hemiparesis (HCC103)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC99 or HCC100 or HCC103; =0 if Primary Diagnosis Group= Stroke; else = 0	✓	✓	✓	✓
Condition Group 29	Atherosclerosis of the Extremities with Ulceration or Gangrene (HCC106)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC106; =0 if item 21A = 0017.4; else = 0	✓	✓	✓	✓
Condition Group 30	Aspiration and Specified Bacterial Pneumonias (HCC114)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC114; =0 if item 21A = 0017.51 or 0017.52; else = 0	✓	✓	✓	✓

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Condition Group 31	Pneumococcal Pneumonia, Empyema, Lung Abscess (HCC115)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC115; =0 if item 21A = 0017.51 or 0017.52; else = 0	n/a	✓	n/a	✓
Condition Group 32	Proliferative Diabetic Retinopathy and Vitreous Hemorrhage (HCC122)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC122; else = 0	✓	✓	✓	✓
Condition Group 33	Dialysis and Chronic Kidney Disease - Stage 5: Dialysis Status (HCC134), Chronic Kidney Disease, Stage 5 (HCC136)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC134, HCC136; =0 if item 21A = 0017.9 or if item 22A, 22B or 22C = N18.5; else = 0	✓	✓	✓	✓
Condition Group 34	Acute Renal Failure (HCC135)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC135; =0 if item 21A = 0017.9; else = 0	n/a	✓	n/a	✓

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility
Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Condition Group 35	Chronic Kidney Disease, Severe (Stage 4) (HCC137)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC137; =0 if item 22A, 22B or 22C = N18.1 or N18.2 or N18.3 or N18.4 or N18.9; else = 0	✓	✓	✓	✓
Condition Group 36	Chronic Kidney Disease, Moderate (Stage 3) (HCC138)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC138; =0 if item 22A, 22B or 22C = N18.1 or N18.2 or N18.3 or N18.4 or N18.9; else = 0	n/a	✓	n/a	✓
Condition Group 37	Chronic Ulcer of Skin, Excluding Pressure Ulcer (HCC161)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC161; =0 if item 21A = 0017.7; else = 0	✓	✓	✓	✓
Condition Group 38	Severe Skin Burn or Condition (HCC162)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC162; =0 if item 21A = 0011; else = 0	n/a	✓	n/a	✓
Condition Group 39	Major Head Injury (HCC167)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC167; =0 if Primary Diagnosis Group= Traumatic Brain Dysfunction; else = 0	✓	n/a	✓	n/a

(continued)

Table A-4 (continued)
Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Condition Group 40	Hip Fracture/Dislocation (HCC170)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC170; =0 if item 21A = 0008.51 or 0008.52 or 0008.11 or 0008.12 or 0008.3; else = 0	n/a	✓	n/a	✓
Condition Group 41	Complication of Specified Implanted Device or Graft (HCC176)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC176; =0 if item 21A = 0017.8; =0 if Primary Diagnosis Group= Hip and Knee Replacements; else = 0	✓	✓	✓	✓
Condition Group 42	Traumatic Amputations and Complications (HCC173)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC173; =0 if Primary Diagnosis Group= Amputation; else = 0	✓	n/a	✓	n/a
Condition Group 43	Amputation Status, Lower Limb/ Amputation Complications (HCC189)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC189; =0 if Primary Diagnosis Group= Amputation; else = 0	✓	✓	✓	✓

(continued)

Risk-Adjustment Covariates for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Covariate	Covariate Category	IRF-PAI Item(s) and Calculations[a]	Change in Self-Care (NQF #2633)	Change in Mobility (NQF #2634)	Discharge Self-Care (NQF #2635)	Discharge Mobility (NQF #2636)
Condition Group 44	Major Organ Transplant or Replacement Status (HCC186)	=1 if Item 24 = see Crosswalk ICD-10 codes to HCC186; =0 if item 21A = 0017.8 or 0017.9; else = 0	n/a	✓	n/a	✓

HCC = Hierarchical Condition Category

Note: 'n/a' in a measure's coefficient column indicates a 0 value, and the risk adjuster can be left out of the regression model; the logic for calculating most risk adjusters is summarized as "*new variable* = [1] if *old item* = [X]; else = [0]". Thus, any instances of missing, a caret, or a dash should be coded as 0 for that risk adjuster item and the IRF stay would not be dropped.

[a] Calculation steps are run in the order in which they are presented so that exceptions to the coding logic are accurately applied.

[b] When calculating the admission self-care and mobility score risk adjusters, first recode each function item so that a code of 07, 09, 10, or 88 is recoded to 01. Use this code as the score. If the mobility item is dash (-), skipped (^), or missing, recode to 01 and use this code as the score. If code is between 01 and 06, then use code as the score. The self-care – continuous covariate will have a range of scores from 7 to 42, and the mobility – continuous covariate will have a range of 15 to 90 after recoding.

[c] The 13 Primary Diagnosis Groups should account for all IRF stays. If an IRF stay is not included in one of the 13 groups due to missing information, please default to coding = [1] for Hip and Knee Replacement so all IRF stays are included in one of the 13 groups. Please note that these groups are mutually exclusive.

[d] Although Complete Tetraplegia is originally part of this HCC, it has been excluded from this comorbidity in our model because it is an exclusion criterion for the IRF Discharge Self-Care Score quality measure. Patients with Incomplete or Unspecified Tetraplegia would be included in this category.

Table A-5

QM Report Measure Calculation: Exceptions to Risk-Adjuster Comorbidities for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF #2635, and NQF #2636)

Condition Group[a]	HCC Category	HCC Code	Exclusions to Comorbidity Coding Based on Primary Diagnosis and Impairment Groups at Admission		
			Previously Defined "Primary Diagnosis Group" (see *Table A-4*)	Specific Impairment Group Codes	Comorbid Conditions, ICD-10 Codes
1	**Opportunistic Infections**	HCC6		= 0, if item 21A = 0017.1	
2	**Metastatic Cancer and Acute Leukemia**	HCC8		= 0, if item 21A = 0017.2	
3	**Lung and Other Severe Cancers**	HCC9		= 0, if item 21A = 0017.2	
4	**Lymphoma and Other Cancers**	HCC10		= 0, if item 21A = 0017.2	
5	**Diabetes with Chronic Complications**	HCC18		= 0, if item 21A = 0017.31, 0017.32	
6	**Diabetes without Complication**	HCC19		= 0, if item 21A = 0017.31, 0017.32	
7	**Protein-Calorie Malnutrition**	HCC21		= 0, if item 21A = 0017.31, 0017.32	
8	**Bone/Joint/Muscle Infections/Necrosis**	HCC39		= 0, if item 21A = 0017.1, 0017.7	
12	**Dementia With Complications**	HCC51		= 0, if item 21A = 0002.1, 0002.9	
13	**Dementia Without Complications**	HCC52		= 0, if item 21A = 0002.1, 0002.9	
18	**Tetraplegia**	HCC70	= 0, if Non-traumatic spinal cord dysfunction or Traumatic spinal cord dysfunction		

(continued)

Table A-5 (continued)

QM Report Measure Calculation: Exceptions to Risk-Adjuster Comorbidities for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF # 2635, and NQF #2636)

Condition Group[a]	HCC Category	HCC Code	Exclusions to Comorbidity Coding Based on Primary Diagnosis and Impairment Groups at Admission		
			Previously Defined "Primary Diagnosis Group" (see *Table A-4*)	Specific Impairment Group Codes	Comorbid Conditions, ICD-10 Codes
19	**Paraplegia**	HCC71	= 0, if Non-traumatic spinal cord dysfunction or Traumatic spinal cord dysfunction		
20	**Spinal Cord Disorders/Injuries**	HCC72	= 0, if Non-traumatic spinal cord dysfunction or Traumatic spinal cord dysfunction		
21	**Amyotrophic Lateral Sclerosis and Other Motor Neuron Disease**	HCC73		= 0, if item 21A = 0003.8, 0003.9	
22	**Cerebral Palsy**	HCC74			
23	**Muscular Dystrophy**	HCC76			
24	**Multiple Sclerosis**	HCC77		= 0, if item 21A = 0003.1	
25	**Parkinson's and Huntington's Diseases**	HCC78		= 0, if item 21A = 0003.2	= 0, if item 22A, 22B or 22C = G10
27	**Angina Pectoris**	HCC88		= 0, if item 21A = 0009	
28	**Cerebrovascular Conditions, Hemiplegia, or Other Late Effects of CVA**				
	Intracranial Hemorrhage	HCC99	=0, if Stroke		
	Ischemic or Unspecified Stroke	HCC100	=0, if Stroke		
	Hemiplegia/Hemiparesis	HCC103	=0, if Stroke		

(continued)

QM Report Measure Calculation: Exceptions to Risk-Adjuster Comorbidities for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF # 2635, and NQF #2636)

| Condition Group[a] | HCC Category | HCC Code | Exclusions to Comorbidity Coding Based on Primary Diagnosis and Impairment Groups at Admission | | |
			Previously Defined "Primary Diagnosis Group" (see *Table A-4*)	Specific Impairment Group Codes	Comorbid Conditions, ICD-10 Codes
29	**Atherosclerosis of the Extremities with Ulceration or Gangrene**	HCC106		= 0, if item 21A = 0017.4	
30	**Aspiration and Specified Bacterial Pneumonias**	HCC114		= 0, if item 21A = 0017.51 or	
31	**Pneumococcal Pneumonia, Empyema, Lung Abscess**	HCC115		= 0, if item 21A = 0017.51 or 0017.52	
33	**Dialysis and Chronic Kidney Disease, Stage 5**				
	Dialysis Status	HCC134		= 0, if item 21A = 0017.9	
	Chronic Kidney Disease, Stage 5	HCC136			= 0, if item 22A, 22B or 22C = N18.5
34	**Acute Renal Failure**	HCC135		= 0, if item 21A = 0017.9	
35	**Chronic Kidney Disease, Severe (Stage 4)**	HCC137			= 0, if item 22A, 22B or 22C = N18.1, N18.2, N18.3, N18.4, or N18.9
36	**Chronic Kidney Disease, Moderate (Stage 3)**	HCC138			= 0, if item 22A, 22B or 22C = N18.1, N18.2, N18.3, N18.4, or N18.9

(continued)

Table A-5 (continued)

QM Report Measure Calculation: Exceptions to Risk-Adjuster Comorbidities for the Change in Self-Care, Change in Mobility, Discharge Self-Care, and Discharge Mobility Measures (NQF #2633, NQF #2634, NQF # 2635, and NQF #2636)

Condition	HCC Category	HCC Code	Exclusions to Comorbidity Coding Based on Primary Diagnosis and Impairment Groups at Admission		
			Previously Defined "Primary Diagnosis Group" (see _Table A-4_)	Specific Impairment Group Codes	Comorbid Conditions, ICD-10 Codes
37	**Chronic Ulcer of Skin, Except Pressure**	HCC161		= 0, if item 21A = 0017.7	
38	**Severe Skin Burn or Condition**	HCC162		= 0, if item 21A = 0011	
39	**Major Head Injury**	HCC167	=0, if Traumatic Brain Dysfunction		
40	**Hip Fracture/Dislocation**	HCC170		= 0, if item 21A = 0008.51 or 0008.52 or 0008.11 or 0008.12 or 0008.3	
41	**Complication of Specified Implanted Device or Graft**	HCC176	=0, if Hip and Knee Replacements	= 0, if item 21A = 0017.8	
42	**Traumatic Amputations and Complications**	HCC173	=0, if Amputation		
43	**Amputation Status, Lower Limb/Amputation Complications**	HCC189	=0, if Amputation		
44	**Major Organ Transplant or Replacement Status**	HCC186		= 0, if item 21A = 0017.8 or 0017.9	

[a] HCC Group number matches the numbers listed in column 1 of _Table A-4_ for the comorbidities. _Table A-4_ and _A-5_ are used in tandem to calculate the QM expected scores. A patient may be coded a "1, yes" for having a specific HCC comorbidity according to _Table A-4_ but _Table A-5_ must also be checked to ensure the comorbidity is not already accounted for under the Primary Diagnosis Group codes or the Impairment Group Codes. If the condition is already accounted for in another risk adjustor, the HCC Group the risk adjustor is changed to "0, no" for the comorbidity because the diagnosis is a patient's primary condition. See coding in this table to determine which items have these exclusions.

Section A.2: Risk-Adjustment Appendix File Overview

The intercept and coefficient values for each of the covariates listed by quality measure in **Section A-1** are available in the Risk-Adjustment Appendix File, which can be accessed on the [IRF Quality Reporting Measures Information website](). This Risk-Adjustment Appendix File, which is used alongside this appendix, contains current and historical intercept and coefficient values and the risk-adjustment schedule including applicable discharge dates for each update to the intercept and coefficient values.

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 Inpatient Rehabilitation Facility Quality Reporting Program Measure Calculations and Reporting User's Manual V4.0. A National Quality Forum (NQF) identification number is provided with the quality measure name, as applicable.

- *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 Inpatient Rehabilitation 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 Inpatient Rehabilitation Facility Quality Reporting Program Measure Calculations and Reporting User's Manual posting on the [IRF 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 document 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 Care Compare Website may vary from the national average observed score provided by this document.

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

Section A.3: Risk-Adjustment Procedure

Below is the procedure on how to use the Inpatient Rehabilitation 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 score. Steps to calculate the risk-adjusted quality measure may vary by each measure. The following procedure contain the general steps:

1. Utilize the IRF stay selection guidance as listed in **Chapter 4** IRF Stay Selection for Assessment-Based Quality Measures (IRF-PAI) in this manual.
2. Follow the guidance for the version or versions of the IRF-PAI 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 IRF-PAI v3.0 to IRF- PAI v4.0.
3. Use the specific calculation steps provided in **Chapter 6** Measure Calculations for Assessment-Based Quality Measures (IRF-PAI) for the measure(s).
   a. Refer to **Appendix A** on details to calculate the covariates for each quality measure.
4. Refer to the Risk-Adjustment Appendix File information 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 applicable quality measure tab 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 4–6): IRF Functional Outcome Measure: Change in Mobility Score for Medical Rehabilitation Patients

- IRF stay had a discharge date of 06/15/2017.
- In the Schedule tab of the Risk-Adjustment Appendix File, refer to the Change in Mobility measure.

− The discharge date of 06/15/2017 is within the discharge date range for Risk- Adjustment Update ID 1 (01/01/2017 – 12/31/2017). Therefore, the user should use the information provided in the Risk-Adjustment ID 1 column.

- Select the Change in Mobility 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 Change in Mobility national average observed score.