



Quality Measures for the LTCH Quality Reporting Program

User's Manual

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QUALITY MEASURES FOR THE LTCH QUALITY REPORTING PROGRAM

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Chapter 1

Quality Measure Record Selection Methodology

The purpose of this section is to present definitions used to describe the methodology employed by the Centers for Medicare & Medicaid Services (CMS) to select assessment records that are used to compute each Quality Measure (QM) from data collected by Long-Term Care Hospitals (LTCHs) and submitted to CMS under the LTCH Quality Reporting Program (LTCH QRP).

Section 1: Definitions

Target period: The span of time that defines the QM reporting period (e.g., a calendar year for the quality measure Percent of Residents or Patients with New or Worsened Pressure Ulcers [NQF¹ #0678]).

Target date: The target date for an assessment is defined as follows:

- For an admission assessment (A0250 Reason for Assessment = [01]), the target date is equal to the admission date (A0220). This is the admission target date.
- For a discharge assessment (A0250 Reason for Assessment = [10, 11]) or expiration record (A0250 Reason for Assessment = [12]), the target date is equal to the discharge date (A0270). This is the discharge target date on the discharge assessment. For expired assessments the discharge date (A0270) is the date of death.

Sort order: The patient's assessment records included in the target period must be sorted by the following:

- Provider Internal ID
- Resident Internal ID
- Target date (descending). This will cause assessment records to appear in reverse chronological order so that the most recent assessment records appear first. This will also ensure that the discharge or expiration assessment record appears prior to the admission assessment record.
- Item A0250 Reason for Assessment (descending). If more than one assessment record shares a target date, this will cause the expiration assessment record to appear first, followed by unplanned discharge assessment record, followed by planned discharge assessment record, followed by admission assessment records. For example, if a patient has more than one type of discharge assessment record (unplanned, planned, expired) that share the same target date, then the patient with one admission and all three types of discharge assessment records would have their

¹ NQF: National Quality Forum

records sorted as follows: RFA = 12, expired; then RFA = 11, unplanned discharge; then RFA = 10, planned discharge; then RFA = 01, admission.

Stay: The period of time between a patient's admission date into a LTCH and discharge date. A stay is also defined as a set of contiguous days in an LTCH. Interrupted stay(s) of less than 3 calendar days are included as part of the patient stay.

The start of a stay is: Any admission assessment (A0250 = [01]).

The end of a stay is the discharge assessment record for the patient with the same admission date as the admission assessment record and the highest discharge Reason for Assessment value:

- Any discharge assessment (A0250 = [10,11]), *or*
- Any expired assessment (A0250 = [12]).

Example: If a patient had multiple assessment records that share the same target date and RFA = 11 unplanned discharge and an RFA = 10 planned discharge, the assessment records for the stay are the admission assessment record and the unplanned discharge assessment record.

Patient Stay for QM sample: A patient stay is defined by a pair of patient assessment records that meet all of the following criteria:

- One of the two assessment records is an admission assessment (A0250 = [01]). This record is the *start-of-patient stay* record.
- The other assessment record is a discharge assessment or expiration assessment (A0250 = [10, 11, 12]). This record is the *end-of-patient stay* record.
- The target date for the *end-of-patient stay* record must be the same as or later than the target date for the *start-of-patient stay* record.
- Both the *start-* and *end-of-patient stay* records must have identical admission date (A0220).
- Both the *start-* and *end-of-patient stay* records must be for the same provider.
- Both the *start-* and *end-of-patient stay* records must have identical Resident Internal ID.
- There are no intervening assessment records between the start- and end-of-patient stay records in the patient's sorted assessment records when the end of patient stay record is selected as instructed above and the extraneous discharge assessment records for the stay are discarded.
- The assessment records included in a *patient stay for QM sample* could span across quarter(s).

- For QM calculation purposes, both the admission and discharge (or expiration) assessment included in the *patient stay* are assigned to the target period of the discharge date (A0270).
- Any admission assessment that is not matched to a discharge assessment is not part of a patient stay and is excluded from the *QM sample*.
- Any discharge assessment or expiration assessment that is not matched to an admission assessment is not part of a patient stay and is excluded from the *QM sample*.
- In the case of multiple discharge assessments (where there is more than one discharge record (planned, unplanned discharge, expired) for the same patient on the same discharge date and with the same admission date in the same facility), use the discharge record as defined as the end-of-stay record above. As noted earlier in the document, interrupted stay(s) of less than 3 calendar days are included as part of the patient stay.

Influenza Vaccination Season: Influenza vaccination season is October 1 through March 31 (e.g., October 1, 2014 through March 31, 2015, for the 2014-2015 influenza vaccination season).

Influenza Season: Influenza season is July 1 to June 30 (e.g., July 1, 2014 through June 30, 2015, for the 2014-2015 influenza season).

Section 2: National Healthcare Safety Network and Claims-Based Measures

National Healthcare Safety Network (NHSN) Measures

- Quality Measure: National Healthcare Safety Network (NHSN) Catheter-Associated Urinary Tract Infection (CAUTI) Outcome Measure
NQF ID: 0138 CMS ID: L006.01
- Quality Measure: National Healthcare Safety Network (NHSN) Central Line-Associated Bloodstream Infection (CLABSI) Outcome Measure
NQF ID: 0139 CMS ID: L007.01

Note: Facility-level data on the NHSN measures are available through the CASPER user-requested Facility Level Quality Measure report. Patient-level data (i.e., the Patient Level Quality Measure reports) are not available.

Claims-Based Measure

- Quality Measure: All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals
NQF ID: 2512 CMS ID: L008.01

The All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals (NQF #2512) was endorsed by the NQF in December 2014. For detailed measure specifications including results of testing and model validation, please visit <http://www.qualityforum.org/ProjectTemplateDownload.aspx?SubmissionID=2512>.

Note: Facility-level data on this claims-based readmission measure are available through the CASPER user-requested Facility-Level Quality Measure report. Patient-level data (i.e., the Patient Level Quality Measure reports) are not available.

Chapter 2

Record Selection and Measure Calculation

The first section below describes the selection of stays for each QM for the LTCH QRP. The second section describes how each QM is calculated for LTCH QRP.

Section 1: Selection for Each QM Sample

Percent of Residents or Patients with Pressure Ulcers that Are New or Worsened (Short Stay) (NQF #0678)

The eligible stays for this QM are selected as follows:

The **target period** for this measure is a 12-month (four quarters) period. **For the CASPER report, the measure is calculated monthly using up to 12 months (four quarters) of data.** For CASPER reports, rates would be displayed monthly based on four rolling quarters of data. As each quarter advances, CMS would add the subsequent quarter and remove the earliest quarter. The illustration of data included in the monthly CASPER reports with data received before 4.5 months correction deadline is provided in Table 1.1.

Table 1.1
Data Included in the Monthly CASPER Reports for the Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (NQF #0678)*

Data calculation rule: The calculations include patient stays from discharges through the end of the month prior to the date of the calculations.

Example Table²

| CASPER Report Calculation Month | Discharges Through the Month of | Reporting Quarter | Months of Data Included in the Reports |
|---------------------------------|---------------------------------|-------------------|--|
| February 2016 | January, 2016 | Quarter 1, 2016 | Stays from discharges occurring from April 1, 2015 through January 31, 2016 |
| March 2016 | February, 2016 | Quarter 1, 2016 | Stays from discharges occurring from April 1, 2015 through February 29, 2016 |

(continued)

² These are examples. Other time periods are available. The earliest quarter end date for the pressure ulcer measure data is 9/30/2013.

Table 1.1 (continued)
Data Included in the Monthly CASPER Reports for the Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (NQF #0678)*

| CASPER Report Calculation Month | Discharges Through the Month of | Reporting Quarter | Months of Data Included in the Reports |
|---------------------------------|---------------------------------|-------------------|---|
| April 2016 | March, 2016 | Quarter 1, 2016 | Stays from discharges occurring from April 1, 2015 through March 31, 2016 |
| May 2016 | April, 2016 | Quarter 2, 2016 | Stays from discharges occurring from July 1, 2015 through April 30, 2016 |
| June 2016 | May, 2016 | Quarter 2, 2016 | Stays from discharges occurring from July 1, 2015 through May 31, 2016 |
| July 2016 | June, 2016 | Quarter 2, 2016 | Stays from discharges occurring from July 1, 2015 through June 30, 2016 |
| August 2016 | July, 2016 | Quarter 3, 2016 | Stays from discharges occurring from October 1, 2015 through July 31, 2016 |
| September 2016 | August, 2016 | Quarter 3, 2016 | Stays from discharges occurring from October 1, 2015 through August 31, 2016 |
| October 2016 | September, 2016 | Quarter 3, 2016 | Stays from discharges occurring from October 1, 2015 through September 30, 2016 |
| November 2016 | October, 2016 | Quarter 4, 2016 | Stays from discharges occurring from January 1, 2016 through October 31, 2016 |
| December 2016 | November, 2016 | Quarter 4, 2016 | Stays from discharges occurring from January 1, 2016 through November 30, 2016 |
| January 2017 | December, 2016 | Quarter 4, 2016 | Stays from discharges occurring from January 1, 2016 through December 31, 2016 |

1. Select all LTCH CARE Data Set stays with a discharge target date within the data target period.

For each patient within each LTCH, do the following:

- a. Order the records according to the sort order defined on page 1.
- b. Scan the sorted stays.
- c. Select all stays that meet the patient stay for QM definition on the previous page, that end with a discharge or expired assessment (A0250 = [10, 11,12]) and whose discharge target date is within the target period. These are *target patient stay records*. If a patient has multiple patient stay records with a discharge target date within the data target period, then include each qualifying patient stay in the measure.

Apply the QM definition (Table 3-1) to the eligible target patient stay records.

Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (Short Stay) (NQF #0680)

The sample for this QM is selected as follows:

1. The target period for this measure is the influenza vaccination season: October 1 through March 31 (e.g., October 1, 2014, through March 31, 2015, for the 2014-2015 influenza vaccination season). The measure is calculated using data from one influenza season and is updated monthly. **For CASPER reports**, rates would be displayed based on the influenza season and on the associated influenza vaccination season. The illustration of CASPER reporting timeline is provided in Table 2.1.

Table 2.1
Data Included in the Monthly CASPER Reports for the Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (Short Stay) (NQF #0680)

Data calculation rule: use patient stays with a discharge date within the influenza season AND with 1 or more days in the LTCH during the associated influenza vaccination season AND with a discharge date on or before the end of the prior month.

Example Table

| CASPER Report Calculation Month | Discharges Through the Month of | Influenza Season | Associated Influenza Vaccination Season | Months of data included in the reports. <i>Note: Please refer to Chapter 2, Section 1 of this Manual for instructions on QM sample selection</i> |
|---------------------------------|---------------------------------|--------------------------|---|---|
| February 2016 | January, 2016 | July, 2015- June 2016 | October, 2015- March, 2016 | Use stays with a discharge date within the influenza season AND with 1 or more days in the LTCH during the associated influenza vaccination season AND with a discharge date on or before January 31, 2016 |
| March 2016 | February, 2016 | July, 2015- June 2016 | October, 2015- March, 2016 | Use stays with a discharge date within the influenza season AND with 1 or more days in the LTCH during the associated influenza vaccination season AND with a discharge date on or before February 29, 2016 |
| April 2016 | March, 2016 | July, 2015- June 2016 | October, 2015- March, 2016 | Use stays with a discharge date within the influenza season AND with 1 or more days in the LTCH during the associated influenza vaccination season AND with a discharge date on or before March 31, 2016 |
| May 2016 | April, 2016 | July, 2015- June 2016 | October, 2015- March, 2016 | Use stays with a discharge date within the influenza season AND with 1 or more days in the LTCH during the associated influenza vaccination season AND with a discharge date on or before April 30, 2016 |
| June 2016 | May, 2016 | July, 2015- June 2016 | October, 2015- March, 2016 | Use stays with a discharge date within the influenza season AND with 1 or more days in the LTCH during the associated influenza vaccination season AND with a discharge date on or before May 31, 2016 |
| July 2016 | June, 2016 | July, 2015- June 2016 | October, 2015- March, 2016 | Use stays with a discharge date within the influenza season AND with 1 or more days in the LTCH during the associated influenza vaccination season AND with a discharge date on or before June 30, 2016 |
| August 2016 | July, 2016 | July, 2016- June 2017 | October, 2016- March, 2017 | <i>Since there are no discharges within the associated influenza vaccination season, there would be no data for this month</i> |

(continued)

Table 2.1 (continued)
Data Included in the Monthly CASPER Reports for the Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (Short Stay) (NQF #0680)

| CASPER Report Calculation Month | Discharges Through the Month of | Influenza Season | Associated Influenza Vaccination Season | Months of data included in the reports. <i>Note: Please refer to Chapter 2, Section 1 of this Manual for instructions on QM sample selection</i> |
|---------------------------------|---------------------------------|-----------------------|---|---|
| September 2016 | August, 2016 | July, 2016- June 2017 | October, 2016- March, 2017 | <i>Since there are no discharges within the associated influenza vaccination season, there would be no data for this month</i> |
| October 2016 | September, 2016 | July, 2016- June 2017 | October, 2016- March, 2017 | <i>Since there are no discharges within the associated influenza vaccination season, there would be no data for this month</i> |
| November 2016 | October, 2016 | July, 2016- June 2017 | October, 2016- March, 2017 | Use stays with a discharge date within the influenza season AND with 1 or more days in the LTCH during the associated influenza vaccination season AND with a discharge date on or before October 31, 2016 |
| December 2016 | November, 2016 | July, 2016- June 2017 | October, 2016- March, 2017 | Use stays with a discharge date within the influenza season AND with 1 or more days in the LTCH during the associated influenza vaccination season AND with a discharge date on or before November 30, 2016 |
| January 2017 | December, 2016 | July, 2016- June 2017 | October, 2016- March, 2017 | Use stays with a discharge date within the influenza season AND with 1 or more days in the LTCH during the associated influenza vaccination season AND with a discharge date on or before December 31, 2016 |

2. The measure includes all patients with 1 or more days in the LTCH during the influenza vaccination season and whose discharge date is within one influenza season (i.e., July 1 to June 30).

For stays with a discharge date prior to 4/1/2016

Select all LTCH CARE Data Set stays with an admission date (A0220) **or** a planned or unplanned (A0250 = 10, 11) discharge date (A0270) within the target period; **or** with the admission date (A0220) before the target period and the planned or unplanned (A0250 = 10, 11) discharge date (A0270) after the target period, such that the stay includes 1 or more days in the LTCH during the target period.

For example, the record of a patient admitted to an LTCH on March 31 will be selected based on the admission date, as long as the discharge date is within the influenza season (i.e., July 1 to June 30). The record of a patient discharged with a planned or unplanned discharge from an LTCH on October 1 will be selected based

on the discharge date, regardless of the admission date. The record of a patient admitted on September 30 and discharged on April 1 will be selected because the stay includes 1 or more days in the LTCH during the target period.

For stays with a discharge date on or after 4/1/2016

Select all LTCH CARE Data Set stays with an admission date (A0220) *or* a planned or unplanned or expired (A0250 = 10, 11, 12) discharge date (A0270) within the target period; *or* with the admission date (A0220) before the target period and the planned or unplanned or expired (A0250 = 10, 11, 12) discharge date (A0270) after the target period, such that the stay includes 1 or more days in the LTCH during the target period.

For each patient within each LTCH, do the following:

- a. Order the records according to the sort order defined on page 1.
- b. Scan the sorted stays.
- c. Select any stays with a discharge date within the influenza season (i.e., July 1 to June 30).
- d. Out of the records selected in step c, select the patient stays that meet one of the following conditions so that any patient in the LTCH for 1 or more days during the influenza vaccination season is included:

- i. For stays with a discharge date prior to 4/1/2016

- The planned or unplanned (A0250 = 10, 11) discharge date (A0270) is on or after October 1 of the most recently completed influenza vaccination season AND on or before March 31 of the most recently completed influenza vaccination season;

- For stays with a discharge date on or after 4/1/2016

- The planned or unplanned or expired (A0250 = 10, 11, 12) discharge date (A0270) is on or after October 1 of the most recently completed influenza vaccination season AND on or before March 31 of the most recently completed influenza vaccination season;

OR

- ii. The admission date (A0220) is on or after October 1 of the most recently completed influenza vaccination season AND on or before March 31 of the most recently completed influenza vaccination season;

OR

- iii. The admission date (A0220) is before October 1 of the most recently completely influenza season AND the discharge date (A0270) is after March 31 and on or prior to June 30 of the most recently completed influenza vaccination season.
- e. If the patient has multiple patient stay records during the target period, then include each influenza vaccination assessment from all qualifying patient stays in the measure.
- f. If the patient has a stay that contains at least one day in more than one influenza vaccination season, then include the most recent influenza vaccination season in the measure.

Apply the QM definition (Tables 3-2, 3-2a, 3-2b, and 3-2c) to the qualifying influenza vaccination assessment records.

Section 2: Measure [QM] Calculation

Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (Short Stay) (NQF #0678)

Using the definitions in Table 3-1, the following steps are used to calculate the measure:

1. Calculate the facility-level observed score (steps 1.1 through 1.4).

1.1. Identify excluded stays.

- 1.1.1 Patient record is excluded if data on new or worsened Stage 2, 3, and 4 pressure ulcers are missing on the planned or unplanned discharge assessment; i.e., M0800A = [-] and M0800B = [-] and M0800C = [-].
- 1.1.2 Patient record is excluded if the patient died during the LTCH stay; i.e., A0250 = [12].
- 1.1.3 Patient record is excluded if there is no admission assessment available to derive data for risk adjustment (covariates).

1.2. Calculate the denominator count:

Calculate the total number of stays with both an admission and discharge LTCH CARE Data Set assessment with the discharge date in the measure target period, which do not meet the exclusion criteria.

1.3. Calculate the numerator count:

Calculate the total number of stays for which the discharge assessment indicates one or more new or worsened pressure ulcers compared to the admission assessment.

1.4. Calculate the facility's observed score:

Divide the facility's numerator count by its denominator count to obtain the facility's observed score; that is, divide the result of step 1.3 by the result of step 1.2.

2. Calculate the expected score for each patient (steps 2.1 and 2.2).

2.1. Determine presence or absence of the pressure ulcer covariates for each patient:

Assign covariate values, either '0' for covariate condition not present or '1' for covariate condition present, for each patient for each of the four covariates as reported on the admission assessment.

2.2. Calculate the expected score for each patient with the following formula:

$$[1] \text{ Patient-level expected QM score} = 1 / [1 + e^{-X}]$$

Where e is the base of natural logarithms and X is a linear combination of the constant and the logistic regression coefficients times the covariate scores (from Formula [2], below).

$$[2] \text{ QM triggered (yes} = 1, \text{ no} = 0) = B_0 + B_1 * COV_1 + B_2 * COV_2 + B_3 * COV_3 + B_4 * COV_4$$

Where:

- B_0 is the logistic regression constant.
- B_1 is the logistic regression coefficient for the first covariate of functional limitation (where applicable), and COV_1 is the patient-level score for the first covariate of functional limitation.
- B_2 is the logistic regression coefficient for the second covariate of bowel incontinence, and COV_2 is the patient level score for the second covariate of bowel incontinence (where applicable).
- B_3 is the logistic regression coefficient for the third covariate of diabetes or peripheral vascular disease/peripheral artery disease (PVD/PAD) (where applicable), and COV_3 is the patient-level score for the third covariate of diabetes or PVD/PAD;
- B_4 is the logistic regression coefficient for the fourth covariate of low body mass index (BMI), and COV_4 is the patient-level score for the fourth covariate of low BMI (where applicable).

See Appendix B for the regression constant and regression coefficients. The regression constant and regression coefficients are numbers obtained through statistical logistic regression analysis.

3. Calculate the facility expected score (step 3.1).
 - 3.1. Once an expected QM score has been calculated for all patient stays, calculate the mean facility-level expected QM score by using all patient-level expected scores.

4. Calculate the facility-level adjusted score (step 4.1).

- 4.1. Calculate the facility-level adjusted score based on the:

Facility-level observed QM score (step 1.4),

Facility-level average expected QM score (step 3.1), and

National* average observed QM score.

** The national observed QM mean for the target period Q3 2015 (October 1, 2014 through September 30, 2015) is available in Appendix B.*

The calculation of the adjusted score uses the following equation:

$$[3] Adj = 1 / [1 + e^{-y}]$$

Where:

Adj is the facility-level adjusted QM score, and

$y = (\text{Ln}(\text{Obs}/(1 - \text{Obs})) - \text{Ln}(\text{Exp}/(1 - \text{Exp})) + \text{Ln}(\text{Nat}/(1 - \text{Nat})))$,

Obs is the facility-level observed QM rate,

Exp is the facility-level expected QM rate,

Nat is the national observed QM rate,

Ln indicates a natural logarithm, and

e is the base of natural logarithms.

Note: If the observed value is 0 or 100, set the risk-adjusted value equal to that value.

Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (Short Stay) (NQF #0680)

The following steps are used to calculate the measure:

1. Identify excluded stays

- 1.1. Stays for which the patient's age on selected influenza vaccination assessment is 179 days or less. Calculate the age in days using the discharge date or the last date of the influenza vaccination season (March 31 of relevant year), whichever comes first in time. Patients who are 180 days old or more by this calculation are included in the measure. Patients who are 179 days old or less by this calculation are excluded from the measure.
- 1.2. Patient stay that ends with patient expiration (A0250 = [12]) is excluded from the measure. This exclusion applies only to stays with a discharge date prior to 4/1/2016.

2. Calculate the denominator count:

Select any stays with a discharge date within the influenza season (i.e., July 1 to June 30). From these selected stays, calculate the total number of stays in which the patient had 1 or more days in the LTCH during the influenza vaccination season, that do not meet the exclusion criteria above.

3. Calculate the facility's overall numerator:

Calculate total number of stays in the denominator meeting any of the following criteria on the admission and/or the discharge assessments:

1. Patient received the influenza vaccine during the most recent influenza season, either in the facility (O0250A = [1]) or outside the facility (O0250C = [2]); or
2. Patient was offered and declined the influenza vaccine (O0250C = [4]); or
3. Patient was ineligible due to contraindication(s) (O0250C = [3]).

4. Calculate the facility's three numerator counts:

- 4.1. Numerator 1: Calculate the total number of stays in the denominator during which patient received the influenza vaccine during the most recent influenza vaccination season, either in the facility (O0250A = [1]) or outside the facility (O0250C = [2]).
- 4.2. Numerator 2: Calculate the total number of stays in the denominator during which patient was offered and declined the influenza vaccine (O0250C = [4]).

- 4.3. Numerator 3: Calculate the total number of stays in the denominator during which patient was ineligible due to contraindication(s) (O0250C = [3]).
5. Calculate the facility's overall observed score:
 - 5.1. Divide facility's overall numerator count (step 3) by its denominator count (step 2) (refer to Table 3-2 for measure specifications).
6. Calculate the facility's observed scores for each numerator count:
 - 6.1. Divide facility's numerator 1 count (step 4.1) by its denominator count (step 2) to obtain the facility's observed score associated with numerator 1 (refer table 3-2a for measure specifications).
 - 6.2. Divide facility's numerator 2 count (step 4.2) by its denominator count (step 2) to obtain the facility's observed score associated with numerator 2 (refer table 3-2b for measure specifications).
 - 6.3. Divide facility's numerator 3 count (step 4.3) by its denominator count (step 2) to obtain the facility's observed score associated with numerator 3 (refer table 3-2c for measure specifications).

Section 3. Comparison Group

A national comparison group will be used. State-level comparison groups are not recommended because many states have small numbers of LTCHs and some states have no LTCHs.

Chapter 3

LTCH CARE Data Set Quality Measures Logical Specifications

Table 3-1
Percent of Residents or Patients with Pressure Ulcers that Are New or Worsened (NQF #0678)¹

| Measure Description | Measure Specifications ² | Covariates |
|---|---|---|
| <p>This measure reports the percentage of patient stays with Stage 2-4 pressure ulcers that are new or worsened since the admission assessment (A0250 = 01).</p> <p>The measure is calculated by review of a patient's discharge assessment for reports of Stage 2-4 pressure ulcers that were not present or were at a lesser stage at the time of the admission assessment.</p> | <p>Numerator</p> <p>Patient stays for whom the planned or unplanned discharge assessment indicates one or more new or worsened Stage 2-4 pressure ulcers:</p> <ol style="list-style-type: none"> 1. Stage 2 (M0800A) > 0, <i>or</i> 2. Stage 3 (M0800B) > 0, <i>or</i> 3. Stage 4 (M0800C) > 0. <p>Denominator</p> <p>Calculate the total number of patient stays with both an admission assessment (A0250 = [01]) and a planned or unplanned discharge assessment (A0250 = [10, 11]) with the discharge date in the measure target period, which do not meet the exclusion criteria.</p> <p>Exclusions</p> <ol style="list-style-type: none"> 1. Patient stay is excluded if M0800A = [-] and M0800B = [-] and M0800C = [-] on the discharge assessment. 2. Patient stay that ends with patient expiration (A0250 = [12]) is excluded from the measure. 3. Patient stay is excluded if there is no admission assessment available to derive data for risk adjustment (covariates). | <p>Data for each covariate is derived from the admission assessment included in the target patient stay records.</p> <ol style="list-style-type: none"> 1. Indicator of supervision/touching assistance or more for the functional mobility item, Lying to sitting on side of bed: <ul style="list-style-type: none"> <u>For stays with a target date prior to 4/1/2016:</u> Covariate = [1] (yes) if GG0160C = [01,02,03,04,07,09,88] ([01] = Dependent, [02] = Substantial/maximal assistance, [03] = Partial/moderate assistance, [04] = Supervision or touching assistance, [07] = Patient refused, [09] = Not applicable, [88] = (activity) not attempted due to medical condition or safety concerns) Covariate = [0] (no) if GG0160C= [05, 06, -, ^] ([05] = Set-up or clean-up assistance, [06] = Independent, [-] = No response available, [^] = Valid skip) <u>For stays with a target date on or after 4/1/2016:</u> Covariate = [1] (yes) if GG0170C = [01,02,03,04,07,09,88] ([01] = Dependent, [02] = Substantial/maximal assistance, [03] = Partial/moderate assistance, [04] = Supervision or touching assistance, [07] = Patient refused, [09] = Not applicable, [88] = (activity) not attempted due to medical condition or safety concerns) Covariate = [0] (no) if GG0170C= [05, 06, -, ^] ([05] = Setup or clean-up assistance, [06] = Independent, [-] = No response available, [^] = Valid skip) 2. Indicator of bowel incontinence at least occasionally: <ul style="list-style-type: none"> Covariate = [1] (yes) if H0400 = [1, 2, 3] ([1] = Occasionally incontinent, [2] = Frequently incontinent, [3] = Always incontinent) Covariate = [0] (no) if H0400 = [0, 9, -, -] ([0] = Always continent, [9] = Not rated, [-] = No response available) 3. Have diabetes mellitus, peripheral vascular disease or peripheral arterial disease: <ul style="list-style-type: none"> Covariate = [1] (yes) if one or both of the following are true: <ol style="list-style-type: none"> a. I0900 = [1] (checked) b. I2900 = [1] (checked) Covariate = [0] (no) if I0900 = [0,-] <i>and</i> I2900 = [0,-] ([0] = No, [-] = No response available) 4. Indicator of low body mass index (BMI), based on height (K0200A) and weight (K0200B): <ul style="list-style-type: none"> Covariate = [1] (yes) if BMI ≥ [12.0] <i>and</i> ≤ [19.0] Covariate = [0] (no) if BMI > [19.0] Covariate = [0] (no) if K0200A = [-] OR K0200B = [-] OR BMI < [12.0] , ('-' = No response available) <p>Where: BMI = (weight * 703 / height²) = ([K0200B] * 703) / (K0200A²) and the resulting value is rounded to one decimal. <i>To round off to the value to one decimal, if the digit in the second place is greater than 5, we add 1 to the digit 1, otherwise leave digit 1 unchanged. Drop all the digits following digit 1.</i></p> |

¹ This measure is NQF-endorsed for use in the LTCH setting (<http://www.qualityforum.org/QPS/0678>) (in addition to inpatient rehabilitation facility and skilled nursing facility/nursing home settings) and is finalized for reporting by LTCHs under the LTCH QRP *Federal Register* 76 (18 August 2011): 51476-51846. Web. <http://www.gpo.gov/fdsys/pkg/FR-2011-08-18/pdf/2011-19719.pdf>, *Federal Register* 77 (31 August 2012): 53619-53621. Web. <http://www.gpo.gov/fdsys/pkg/FR-2012-08-31/pdf/2012-19079.pdf>, and *Federal Register* 78 (19 August 2013): 50853-50887. Web. <http://www.gpo.gov/fdsys/pkg/FR-2013-08-19/pdf/2013-18956.pdf>.

² Beginning on October 1, 2012, LTCHs began to use the LTCH CARE Data Set to collect and submit pressure ulcer data for the LTCH QRP.

Table 3-2
Percent of Residents or Patients Who Were Assessed and Appropriately Given the Seasonal Influenza Vaccine (NQF #0680)¹

| Measure Description | Measure Specifications ² | Covariates |
|---|---|---------------------------------------|
| <p>This measure reports the percentage of stays in which the patients were assessed and were appropriately given the influenza vaccine during the most recent influenza vaccination season.</p> | <p>Numerator</p> <p>Total number of patient stays in the denominator meeting any of the following criteria on the selected influenza vaccination assessment:</p> <ol style="list-style-type: none"> 1. Patient received the influenza vaccine during the most recent influenza vaccination season, either in the facility (O0250A = [1]) or outside the facility (O0250C = [2]); or 2. Patient was offered and declined the influenza vaccine (O0250C = [4]); or 3. Patient was ineligible due to contraindication(s) (O0250C = [3]). <p>Denominator</p> <p>Select any stays with a discharge date within the influenza season (i.e., July 1 to June 30). From these selected stays, calculate the total number of records in which the patient had 1 or more days in the LTCH during the influenza vaccination season, except those with exclusions.</p> <p>Exclusions</p> <ol style="list-style-type: none"> 1. Stays for which the patient's age on selected influenza vaccination assessment is 179 days or less. Calculate the age in days using the discharge date or the last date of the influenza vaccination season (March 31 of relevant year), whichever comes first in time. Patients who are 180 days old or more by this calculation are included in the measure. Patients who are 179 days old or less by this calculation are excluded from the measure. 2. Patient stay that ends with patient expiration (A0250 = [12]) is excluded from the measure. This exclusions applies only to stays with a discharge date prior to 4/1/2016. | <p align="center">Not applicable.</p> |

¹ This measure is NQF-endorsed for use in the Long-Term Care Hospital (LTCH) setting (<http://www.qualityforum.org/QPS/0680>) (in addition to inpatient rehabilitation facility and skilled nursing facility/nursing home settings) and is finalized for reporting by LTCHs under the LTCH QRP (*Federal Register* 77 (31 August 2012): 53624-53627. Web. <http://www.gpo.gov/fdsys/pkg/FR-2012-08-31/pdf/2012-19079.pdf>. The use of the words “resident” and “short stay” in the title of this measure refer to the use of this measure in the SNF/NH setting. CMS’s use of these words does not imply that the LTCH patient is a “resident” or that a stay in an LTCH is a “short stay.”

² Beginning on July 1, 2014, LTCHs began to use the LTCH CARE Data Set to collect and submit patient influenza vaccination data for the LTCH QRP.

Table 3-2a
Percent of Patients Who Received the Seasonal Influenza Vaccine (NQF #0680)¹

| Measure Description | Measure Specifications ² | Covariates |
|---|--|------------------------|
| <p>This measure reports the percentage of patient stays in which the patient received the influenza vaccination during the most recent influenza vaccination season.</p> <p>The measure score is computed and reported for the three numerator components separately.</p> | <p>Numerator</p> <p>Total number of patient stays in the denominator meeting the following criterion on the selected influenza vaccination assessment:</p> <ol style="list-style-type: none"> 1. Patient received the influenza vaccine during the most recent influenza vaccination season, either in the facility (O0250A = [1]) or outside the facility (O0250C = [2]). <p>Denominator</p> <p>Select any stays with a discharge date within the influenza season (i.e., July 1 to June 30). From these selected stays, calculate the total number of records in which the patient had 1 or more days in the LTCH during the influenza vaccination season, except those with exclusions.</p> <p>Exclusions</p> <ol style="list-style-type: none"> 1. Stays for which the patient’s age on selected influenza vaccination assessment is 179 days or less. Calculate the age in days using the discharge date or the last date of the influenza vaccination season (March 31 of relevant year), whichever comes first in time. Patients who are 180 days old or more by this calculation are included in the measure. Patients who are 179 days old or less by this calculation are excluded from the measure. 2. Patient stay that ends with patient expiration (A0250 = [12]) is excluded from the measure. This exclusions applies only to stays with a discharge date prior to 4/1/2016. | <p>Not applicable.</p> |

¹ This measure is NQF-endorsed for use in the Long-Term Care Hospital (LTCH) setting (<http://www.qualityforum.org/QPS/0680>) (in addition to inpatient rehabilitation facility and skilled nursing facility/nursing home settings) and is finalized for reporting by LTCHs under the LTCH Quality Reporting Program (*Federal Register* 77 (31 August 2012): 53624-53627. Web. <http://www.gpo.gov/fdsys/pkg/FR-2012-08-31/pdf/2012-19079.pdf>). The use of the words “resident” and “short stay” in the title of this measure refer to the use of this measure in the SNF/NH setting. CMS’s use of these words does not imply that the LTCH patient is a “resident” or that a stay in an LTCH is a “short stay.”

² Beginning on July 1, 2014, LTCHs began to use the LTCH CARE Data Set to collect and submit patient influenza vaccination data for the LTCH Quality Reporting Program.

Table 3-2b
Percent of Patients Who Were Offered and Declined
the Seasonal Influenza Vaccine (Short Stay) (NQF #0680)¹

| Measure Description | Measure Specifications ² | Covariates |
|---|---|------------------------|
| <p>This measure reports the percentage of patient stays in which the patients were offered and declined the influenza vaccination during the most recent influenza vaccination season.</p> <p>The measure score is computed and reported for the three numerator components separately.</p> | <p>Numerator</p> <p>Total number of patient stays in the denominator meeting the following criterion on the selected influenza vaccination assessment:</p> <ol style="list-style-type: none"> 1. Patient was offered and declined the influenza vaccine (O0250C = [4]). <p>Denominator</p> <p>Select any stays with a discharge date within the influenza season (i.e., July 1 to June 30). From these selected stays, calculate the total number of records in which the patient had 1 or more days in the LTCH during the influenza vaccination season, except those with exclusions.</p> <p>Exclusions</p> <ol style="list-style-type: none"> 1. Stays for which the patient's age on selected influenza vaccination assessment is 179 days or less. Calculate the age in days using the discharge date or the last date of the influenza vaccination season (March 31 of relevant year), whichever comes first in time. Patients who are 180 days old or more by this calculation are included in the measure. Patients who are 179 days old or less by this calculation are excluded from the measure. 2. Patient stay that ends with patient expiration (A0250 = [12]) is excluded from the measure. This exclusions applies only to stays with a discharge date prior to 4/1/2016. | <p>Not applicable.</p> |

¹ This measure is NQF-endorsed for use in the LTCH setting (<http://www.qualityforum.org/QPS/0680>) (in addition to inpatient rehabilitation facility and skilled nursing facility/nursing home settings) and is finalized for reporting by LTCHs under the LTCH Quality Reporting Program (*Federal Register* 77 (31 August 2012): 53624-53627. Web. <http://www.gpo.gov/fdsys/pkg/FR-2012-08-31/pdf/2012-19079.pdf>). The use of the words “resident” and “short stay” in the title of this measure refer to the use of this measure in the SNF/NH setting. CMS’s use of these words does not imply that the LTCH patient is a “resident” or that a stay in an LTCH is a “short stay.”

² Beginning on July 1, 2014, LTCHs began to use the LTCH CARE Data Set to collect and submit patient influenza vaccination data for the LTCH Quality Reporting Program.

Table 3-2c
Percent of Residents or Patients Who Did Not Receive, Due to Medical Contraindication,
the Seasonal Influenza Vaccine (NQF #0680)¹

| Measure Description | Measure Specifications ² | Covariates |
|---|---|------------------------|
| <p>This measure reports the percentage of patient stays in which the patients did not receive, due to medical contraindication, the influenza vaccination during the most recent influenza vaccination season.</p> <p>The measure score is computed and reported for the three numerator components separately.</p> | <p>Numerator</p> <p>Total number of patient stays in the denominator meeting the following criteria on the selected influenza vaccination assessment:</p> <ol style="list-style-type: none"> 1. Patient was ineligible due to contraindication(s) (O0250C = [3]) (e.g., anaphylactic hypersensitivity to eggs or other components of the vaccine, history of Guillain-Barre Syndrome within 6 weeks after a previous influenza vaccination, bone marrow transplant within the past 6 months). <p>Denominator</p> <p>Select any stays with a discharge date within the influenza season (i.e., July 1 to June 30). From these selected stays, calculate the total number of records in which the patient had 1 or more days in the LTCH during the influenza vaccination season, except those with exclusions.</p> <p>Exclusions</p> <ol style="list-style-type: none"> 1. Stays for which the patient's age on selected influenza vaccination assessment is 179 days or less. Calculate the age in days using the discharge date or the last date of the influenza vaccination season (March 31 of relevant year), whichever comes first in time. Patients who are 180 days old or more by this calculation are included in the measure. Patients who are 179 days old or less by this calculation are excluded from the measure. 2. Patient stay that ends with patient expiration (A0250 = [12]) is excluded from the measure. This exclusions applies only to stays with a discharge date prior to 4/1/2016. | <p>Not applicable.</p> |

¹ This measure is NQF-endorsed for use in the Long-Term Care Hospital (LTCH) setting (<http://www.qualityforum.org/QPS/0680>) (in addition to inpatient rehabilitation facility and skilled nursing facility/nursing home settings) and is finalized for reporting by LTCHs under the LTCH Quality Reporting Program (*Federal Register* 77 (31 August 2012): 53624-53627. Web. <http://www.gpo.gov/fdsys/pkg/FR-2012-08-31/pdf/2012-19079.pdf>). The use of the words “resident” and “short stay” in the title of this measure refer to the use of this measure in the SNF/NH setting. CMS’s use of these words does not imply that the LTCH patient is a “resident” or that a stay in an LTCH is a “short stay.”

² Beginning on July 1, 2014, LTCHs began to use the LTCH CARE Data Set to collect and submit patient influenza vaccination data for the LTCH Quality Reporting Program.

Appendix A: Public Reporting Documentation

Section 1: Quality Measures for Public Reporting- 2016

Long-Term Care Hospital Continuity Assessment and Record Evaluation (LTCH CARE) Data Set Measure

- Quality Measure: Percent of Residents or Patients with Pressure Ulcers that Are New or Worsened (Short Stay)
NQF ID: 0678 CMS ID: L001.01

National Healthcare Safety Network (NHSN) Measures

- Quality Measure: National Healthcare Safety Network (NHSN) Catheter-Associated Urinary Tract Infection (CAUTI) Outcome Measure
NQF ID: 0138 CMS ID: L006.01
- Quality Measure: National Healthcare Safety Network (NHSN) Central Line-Associated Bloodstream Infection (CLABSI) Outcome Measure
NQF ID: 0139 CMS ID: L007.01

Claims-Based Measure

- Quality Measure: All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals
NQF ID: 2512 CMS ID: L008.01

Section 2: Record Selection Criteria

Select only the quality measure data submitted and corrected prior to the submission deadline. This means that if a modified or inactivated record was submitted after the deadline and before the calculation run, the modified or inactivated record submitted after the deadline will be ignored and the version of the claims or assessment submitted prior to the deadline will be used. Please note that the calculations for the CASPER reports include all current records in the database at time of calculation. Please refer to Chapter 2, Section 1 of this Manual for instructions on record selection for Percent of Residents or Patients with Pressure Ulcers that Are New or Worsened (Short Stay) measure (NQF ID:0678).

Section 3: Calculation Frequency

Percent of Residents or Patients with Pressure Ulcers that Are New or Worsened (Short Stay) (NQF #0678)

The **target period** for this measure is a 12-month (four quarters) period. **The measure is calculated quarterly, using a rolling 12 months (four quarters) of data, and is updated quarterly.** For public display, rates would be displayed based on four rolling quarters of data and would initially be reported using discharges from January 1, 2015, through December 31, 2015, for calculation. As each quarter advances, CMS would add the subsequent quarter and remove the earliest quarter. For example, initially we would use data from discharges occurring from January 1, 2015, through December 31, 2015. The next quarter, we would display performance data using discharges that occurred between the dates of April 1, 2015, through March 31, 2016, etc.

LTCHs have up to 45 days after the target period ends to submit data for the given quarter. **Therefore, the public reporting calculations will be run after the submission deadline for the quarter.** Please Note: Starting October 1, 2015, LTCHs will have up to 4.5 months/135 days after the target period ends to submit data for the given quarter. Therefore, to include any data corrected by a LTCH, LTCH QM calculations should be run 4.5 months after the Submission deadline for the target period. Refer to Table A-1 for measure calculation timelines.

**Table A.1
LTCH Measure Calculation Timeline for Public Reporting**

| Data Collection Timeframe | Time Given to Submit Corrected LTCH-CARE Data | Example ¹ |
|--|---|---|
| For quarters starting October 1, 2012, and ending on June 30, 2014 | 4.5 months/135 days | For target period April-June 2014, measure should be calculated after November 15, 2014 |
| For quarters starting July 1, 2014, and ending on September 30, 2015 | 1.5 months/45 days | For target period July-September 2015, measure should be calculated after November 14, 2015 |
| For quarters starting October 1, 2015 onward | 4.5 months approximately/135 days | For target period October-December 2015, measure should be calculated after May 15, 2016 |

National Healthcare Safety Network (NHSN) Catheter-Associated Urinary Tract Infection (CAUTI) Outcome Measure (NQF ID: 0138)

The measure is calculated quarterly, using 12 months of data, and is updated quarterly.

National Healthcare Safety Network (NHSN) Central Line-Associated Bloodstream Infection (CLABSI) Outcome Measure (NQF ID: 0139)

The measure is calculated quarterly, using 12 months of data, and is updated quarterly.

All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals (NQF ID: 2512)

This measure is calculated and updated annually using 2 consecutive calendar years of Medicare Fee-for-Service claims data.

Section 4: Additional Exclusion Criteria for Public Reporting

Percent of Residents or Patients with Pressure Ulcers that Are New or Worsened (Short Stay) (NQF #0678)

LTCHs with denominator counts of less than 20 in the sample will be excluded from public reporting owing to small sample size.

All-Cause Unplanned Readmission Measure for 30 Days Post Discharge from Long-Term Care Hospitals (NQF ID: 2512)

CMS has proposed to exclude LTCHs with fewer than 25 eligible stays during the measurement period from public reporting.

Appendix B: Model Parameters

Percent of Residents or Patients with Pressure Ulcers that Are New or Worsened (Short Stay) (NQF #0678)

The purpose of this appendix is to present the logistic regression coefficients used in the risk adjustment calculations that were applied to the risk-adjusted QM.

This appendix presents the model parameters that were estimated for the risk adjusted QM, the Percent of Patients with Pressure Ulcers That Are New or Worsened (NQF #0678) for the LTCH Quality Reporting Program for the following time periods:

- The **Target Period** is October 1, 2014, through September 30, 2015.

LOGISTIC REGRESSION COEFFICIENTS

The logistic regression coefficients presented in Table B.1 are based on calculations for the target period: October 1, 2014 through September 30, 2015.

Table B.1
LTCH Logistic Regression Coefficients for the Percent of Residents or Patients with Pressure Ulcers That Are New or Worsened (NQF #0678)

| Constant (Intercept) | Patient-Level Covariates |
|----------------------|---|
| -5.4341 | 1. Covariate 1 (Functional Limitation): 1.1981 2. Covariate 2 (Bowel Incontinence): 0.4977 3. Covariate 3 (Diabetes or PVD/PAD): 0.1787 4. Covariate 4 (Low BMI): 0.4042 |

NATIONAL OBSERVED MEAN

1. Calculate national mean QM score (steps 1.1 through 1.3)

- 1.1 Calculate the denominator count:

Count the total number of stays with both an admission and discharge LTCH CARE Data Set assessment in the measure target period that do not meet the exclusion criteria and sum for the nation.

- 1.2 Calculate the numerator count:

Calculate the total number of stays for which the discharge assessment indicates one or more new or worsened pressure ulcers compared to the admission assessment and sum for the nation.

1.3 Calculate national mean observed QM score:

Divide the numerator count by its denominator count to obtain the nation's observed score; that is, divide the result of step 1.2 by the result of step 1.1.

The national observed QM means are updated for each target period. The national observed mean for the target period October 1, 2014, through September 30, 2015*, is **1.9616**.

*For the most updated national observed mean, please refer to the national observed mean included in Facility Level Quality Measure report.