



Hospice Item Set–Based Quality Measures for the Hospice Quality Reporting Program

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Chapter 1: Quality Measure Record Selection Methodology

The purpose of this chapter is to describe the methodology employed to select records from data submitted to the Centers for Medicare and Medicaid Services (CMS) using the Hospice Item Set (HIS) under the Hospice Quality Reporting Program (HQRP) for the purpose of computing quality measures (QMs).

Section 1: Definitions

Target period. The span of time that defines the QM reporting period (e.g., a calendar quarter).

Target date. The target date for a record is defined as follows:

- For an admission record (A0250 Reason for Assessment = [01]), the target date is equal to the admission date (A0220). This is the admission target date.
- For a discharge record (A0250 Reason for Assessment = [09]), the target date is equal to the discharge date (A0270). This is the discharge target date.

Data selection period. The span of time that determines which data are used to calculate the QM for a target period. Each target period is associated with a data selection period (e.g., a calendar quarter or a calendar year). Records with the target date within the data selection period are assigned to a target period for reporting. The data selection period is not necessarily the same as the target period. For example, a target period can be a calendar quarter while the data selection period can be a year.

Patient data stream. The patient's data stream consists of all records for the specific patient at a specific hospice.

Sort order. The records in a patient's data stream must be sorted by the following variables:

- Target date (descending): This will cause records to appear in reverse chronological order so that the most recent records appear first in the data stream. This will also ensure that the discharge record appears prior to the admission record in the data stream, when a discharge record for a patient stay is available (i.e., the patient was discharged).
- Item A0250 Reason for Assessment (descending): If more than one record shares a target date (e.g., the patient was admitted and discharged on the same day), this will cause the discharge record to appear first in the data stream, followed by the admission record.

Stay. The period of time between a patient's admission to a hospice and either (a) a discharge or (b) the end of the target period, whichever comes first. A patient can have multiple stays assigned to a target period.

- A patient stay starts with an admission record (A0250 = [01]). The **stay start date** is the admission date (A0220) on the admission record.
 - When the admission record that starts a stay is missing (i.e., when a discharge record has no matching admission record for the same patient with the same admission date and in the same hospice), the **stay start date** is the admission date (A0220) on the discharge record.
- A patient stay ends with either (a) a discharge record (A0250 = [09]) or (b) the end of the target period, whichever comes first.
 - When a patient stay ends with a discharge record (A0250 = [09]), the **stay end date** is the discharge date (A0270) on the discharge record.
- The **stay end date** must be the same as or later than the **stay start date**.
- Both the admission and the discharge records associated with the patient stay must have identical admission dates (A0220).
 - When a patient stay ends with the end of the target period (this typically indicates that the patient is still enrolled with the hospice at the end of the target period), the **stay end date** is the end of the target period.
- The **stay end date** must be the same as or later than the **stay start date**.
- The admission and discharge records that define the start and the end of patient stays are paired by matching the patient identifier (State Code and Resident Internal ID), hospice identifier (Provider Internal Number), and admission date (A0220). If multiple admission records (or multiple discharge records) share the same information in these matching criteria, the most recent chronological submission is kept and used. The submission time is first determined by submission date (SUBMSN_DT) and then, if multiple records are submitted on the same day, by the Hospice Assessment ID (HOSPC_ASMT_ID).
- The definitions above generate three types of stays for a target period:
 - **Type 1:** stays with both the admission and the discharge records (i.e., discharged stays).
 - **Type 2:** stays with the discharge record but no admission record (i.e., discharged stays but missing the admission records).
 - **Type 3:** stays with the admission record but no discharge record (i.e., active stays as of the end of the target period).

Patient Stay for QM sample. A patient stay is eligible to be included in the QM sample if the patient stay has a discharge record (A0250 = [09]) with the discharge date (A0270) within the data selection period. A patient can have multiple stays included in the QM sample. All eligible stays for a patient are included.

- For QM calculation purposes, both the admission and the discharge records are assigned to a data selection period and a target period based on the discharge date.
- The patient stays included in a QM sample could span across quarters, which means the admission record could have a target date outside the data selection period.

Length of Stay (LOS). Length of stay is the number of days within a stay, that is, from the *stay start date* through the *stay end date*.

- When counting the number of days, include the *stay start date* but not the *stay end date*, unless the start and end of the stay occurred on the same day in which case the number of days in the stay is equal to 1.

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Chapter 2: Record Selection and Measure Calculation

A specific QM is calculated by selecting eligible records from patient data streams and applying the QM definitions to those selected records. The first section below describes the selection of records for each QM for the HQRP. The second section describes how each QM is calculated for HQRP.

Section 1: Selection For QM Samples

Admission-Anchored QMs

An admission-anchored QM is designed to measure quality of care around hospice admission. Table 2-1 lists the admission-anchored QMs captured by the HIS.

**Table 2-1:
Admission-Anchored QMs**

NQF Number	Measure Name
NQF #1641	Hospice and Palliative Care—Treatment Preferences
NQF #1647 (modified) ¹	Beliefs/Values Addressed (if desired by the patient)
NQF #1634	Hospice and Palliative Care—Pain Screening
NQF #1637	Hospice and Palliative Care—Pain Assessment
NQF #1639	Hospice and Palliative Care—Dyspnea Screening
NQF #1638	Hospice and Palliative Care—Dyspnea Treatment
NQF #1617	Patients Treated with an Opioid Who Are Given a Bowel Regimen

¹ This is a modified version of a NQF-endorsed measure for use in the hospice and/or palliative care setting. The measure is considered modified because the NQF measure specifications indicate that the numerator condition can be met at any time during the patient's hospice episode of care. Instead, we have opted to include the relevant items for this measure on the HIS admission even though the NQF measure specifications permit the numerator condition to be met at any time during the hospice episode of care.

The eligible records for the admission-anchored QMs are selected as follows (note that ***bold italic*** text indicates terms defined in Chapter 1, Section 1: Definitions):

1. Determine the ***target period*** and ***data selection period***.
2. Create ***patient stays*** and calculate ***length of stay***.
 - a. Sort the records in all ***patient data streams*** according to the ***sort order***.
 - b. Identify ***stay(s)*** for each patient. For each ***stay***, identify ***stay start date*** and the admission record (when available); identify ***stay end date*** and the discharge record (when available).
 - c. Calculate ***length of stay***

3. Identify **QM sample**:
 - a. Select stays to be included in the **QM sample** if the patient stays have a discharge record with the **target date** within the **data selection period**. All eligible stays for a patient are included; thus, a patient can have multiple stays included in the QM sample.
4. Select each admission record (**A0250 Reason for Assessment = [01]**) associated with each patient stay for the **QM sample**.
5. Apply the QM specifications to the selected admission records.

Section 2: Measure [QM] Calculation

All admission-anchored QMs listed in Table 2-1 are calculated following a similar algorithm.

Using the definitions in Tables 3-1 to 3-7 in Chapter 3, the following shows the steps to calculate the admission-anchored QMs:

NQF #1641: Hospice and Palliative Care—Treatment Preferences

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

1. Identify excluded stays:
 - 1.1 Patient stay is excluded if the patient is under 18 years of age as indicated by the birth date (**A0900**) and admission date (**A0220**); **OR**
 - 1.2 Type 2 and 3 patient stays.
2. Calculate the denominator count:
Calculate the total number of Type 1 stays that do not meet the exclusion criteria.
3. Calculate the hospice's overall numerator:
Calculate the total number of stays in the denominator that meet any of the following criteria:
 - 3.1 The patient/responsible party was asked about preference regarding the use of cardiopulmonary resuscitation (**F2000A = [1,2]**) no more than 7 days prior to admission or within 5 days of the admission date ($-7 \geq \text{F2000B} - \text{A0220} \leq 5$ and **F2000B** ≠ [-,^]); **OR**
 - 3.2 The patient/responsible party was asked about preferences regarding life-sustaining treatments other than CPR (**F2100A = [1,2]**) no more than 7 days prior to admission or within 5 days of the admission date ($-7 \geq \text{F2100B} - \text{A0220} \leq 5$ and **F2100B** ≠ [-,^]); **OR**
 - 3.3 The patient/responsible party was asked about preference regarding hospitalization (**F2200A = [1,2]**) no more than 7 days prior to admission or within 5 days of the admission date ($-7 \geq \text{F2200B} - \text{A0220} \leq 5$ and **F2200B** ≠ [-,^]).

4. Calculate the hospice's overall observed score:
Divide the hospice's numerator count by its denominator count to obtain the hospice's observed score; that is, divide the result of step 3 by the result of step 2. The score is converted to a percent value by multiplying by 100.

NQF #1647 (modified): Beliefs & Values Addressed (if desired by the patient)

Using the definitions in Table 3-2, the following steps are used to calculate the measure:

1. Identify excluded stays:
 - 1.1 Patient stay is excluded if patient is under 18 years of age as indicated by the birth date (**A0900**) and admission date (**A0220**); **OR**
 - 1.2 Type 2 and 3 patient stays.
2. Calculate the denominator count:
Calculate the total number of Type 1 stays that do not meet the exclusion criteria.
3. Calculate the numerator count:
Calculate the total number of stays in the denominator that the patient and/or caregiver was asked about spiritual/existential concerns (**F3000A = [1,2]**) no more than 7 days prior to admission or within 5 days of the admission date (**$-7 \geq F3000B - A0220 \leq 5$ and $F3000B \neq [-,^A]$**).
4. Calculate the hospice's overall observed score:
Divide the hospice's numerator count by its denominator count to obtain the hospice's observed score; that is, divide the result of step 3 by the result of step 2. The score is converted to a percent value by multiplying by 100.

NQF #1634: Hospice and Palliative Care—Pain Screening

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

1. Identify excluded stays:
 - 1.1 Patient stay is excluded if patient is under 18 years of age as indicated by the birth date (**A0900**) and admission date (**A0220**); **OR**
 - 1.2 Type 2 and 3 patient stays.
2. Calculate the denominator count:
Calculate the total number of Type 1 stays that do not meet the exclusion criteria.
3. Calculate the facility's overall numerator:
Calculate the total number of stays in the denominator that meet any of the following criteria:

- 3.1 The patient was screened for pain within 2 days of the admission date (**J0900B – A0220 ≤ 2 and J0900B ≠ [-,^]**) and reported that they had no pain (**J0900C = [0]**); **OR**
- 3.2 The patient was screened for pain within 2 days of the admission date (**J0900B – A0220 ≤ 2 and J0900B ≠ [-,^]**), the patient's pain severity was rated mild, moderate, or severe (**J0900C = [1,2,3]**), and a standardized pain tool was used (**J0900D = [1,2,3,4]**).
4. Calculate the hospice's overall observed score:
Divide the hospice's numerator count by its denominator count to obtain the hospice's observed score; that is, divide the result of step 3 by the result of step 2. The score is converted to a percent value by multiplying by 100.

NQF #1637: Hospice and Palliative Care—Pain Assessment

Using the definitions in Table 3-4, the following steps are used to calculate the measure:

1. Identify excluded stays:
 - 1.1 Patient stay is excluded if patient is under 18 years of age as indicated by the birth date (**A0900**) and admission date (**A0220**); **OR**
 - 1.2 Type 2 and 3 patient stays.
2. Calculate the denominator count:
Calculate the total number of Type 1 stays in the denominator where the patient's pain severity was rated mild, moderate, or severe (**J0900C = [1,2,3]**) that do not meet the exclusion criteria.
3. Calculate the numerator count:
Calculate the total number of stays where a comprehensive pain assessment was completed within 1 day of the pain screening during which the patient was screened positive for pain (**J0910B – J0900B ≤ 1 and J0910B and J0900B ≠ [-,^]**) **AND** included at least 5 of the following characteristics: location, severity, character, duration, frequency, what relieves or worsens the pain, and the effect on function or quality of life (**5 or more items in J0910C1 – J0910C7 checked and not all J0910C boxes = [-,^]**).
4. Calculate the hospice's overall observed score:
Divide the hospice's numerator count by its denominator count to obtain the hospice's observed score; that is, divide the result of step 3 by the result of step 2. The score is converted to a percent value by multiplying by 100.

NQF #1639: Hospice and Palliative Care—Dyspnea Screening

Using the definitions in Table 3-5, the following steps are used to calculate the measure:

1. Identify excluded stays:
 - 1.1 Patient stay is excluded if patient is under 18 years of age as indicated by the birth date (**A0900**) and admission date (**A0220**); **OR**
 - 1.2 Type 2 and 3 patient stays.
2. Calculate the denominator count:
Calculate the total number of Type 1 stays that do not meet the exclusion criteria.
3. Calculate the numerator count:
Calculate the total number of stays in the denominator where the patient was screened for shortness of breath within 2 days of the admission date (**J2030B – A0220 ≤ 2 and J2030B ≠ [-,^]**).
4. Calculate the hospice's overall observed score:
Divide the hospice's numerator count by its denominator count to obtain the hospice's observed score; that is, divide the result of step 3 by the result of step 2. The score is converted to a percent value by multiplying by 100.

NQF #1638: Hospice and Palliative Care—Dyspnea Treatment

Using the definitions in Table 3-6, the following steps are used to calculate the measure:

1. Identify excluded stays:
 - 1.1 Patient stay is excluded if patient is under 18 years of age as indicated by the birth date (**A0900**) and admission date (**A0220**); **OR**
 - 1.2 Type 2 and 3 patient stays.
2. Calculate the denominator count:
Calculate the total number of Type 1 stays where the screening indicated the patient had shortness of breath (**J2030C = [1]**), that do not meet the exclusion criteria.
3. Calculate the facility's overall numerator:
Calculate the total number of stays in the denominator that meet any of the following criteria:
 - 3.1 The patient declined treatment (**J2040A = [1]**); **OR**
 - 3.2 Treatment for shortness of breath was initiated prior to the screening for shortness of breath or within 1 day of the screening for shortness of breath during which the patient screened positive for shortness of breath (**J2040B – J2030B ≤ 1 and J2040B and J2030B ≠ [-,^]**).

4. Calculate the hospice's overall observed score:
Divide the hospice's numerator count by its denominator count to obtain the hospice's observed score; that is, divide the result of step 3 by the result of step 2. The score is converted to a percent value by multiplying by 100.

NQF #1617: Patient Treated with an Opioid Who Are Given a Bowel Regimen

Using the definitions in Table 3-7, the following steps are used to calculate the measure:

1. Identify Excluded Records (excluded stays):
 - 1.1 Patient stay is excluded if patient is under 18 years of age as indicated by the birth date (**A0900**) and admission date (**A0220**); **OR**
 - 1.2 Type 2 and 3 patient stays.
2. Calculate the denominator count:
Calculate the total number of Type 1 stays where a scheduled opioid was initiated or continued (**N0500A = [1]**), that do not meet the exclusion criteria.
3. Calculate the facility's overall numerator:
Calculate the total number of stays in the denominator that are included in the numerator if they meet the following criteria:
 - 3.1 There is documentation of why a bowel regimen was not initiated or continued (**N0520A = [1]**); **OR**
 - 3.2 A bowel regimen was initiated or continued within 1 day of a scheduled opioid being initiated or continued (**N0520B – N0500B ≤ [1] and N0520B and N0500B ≠ [-,^]**).
4. Calculate the hospice's overall observed score:
Divide the hospice's numerator count by its denominator count to obtain the hospice's observed score; that is, divide the result of step 3 by the result of step 2. The score is converted to a percent value by multiplying by 100.

Chapter 3: HIS Quality Measures Logical Specifications

CMS implemented the HIS as part of the HQRP in the FY 2014 Hospice Wage Index final rule (78 FR 48234-48281). The HIS is a standardized set of items intended to capture patient-level data on each hospice patient admission. Current HIS items on the admission record can be used to calculate six National Quality Forum (NQF) endorsed measures and a modification of one NQF-endorsed measure. The purpose of this chapter is to describe the measures logical specifications.

**Table 3-1:
Treatment Preferences (NQF #1641)**

Measure Description
The percentage of hospice patients with chart documentation that the hospice discussed (or attempted to discuss) preferences for life-sustaining treatments.
All items are from the admission record of the stay
Numerator Type 1 patients stays are included in the numerator if they meet the following criteria: - The patient/responsible party was asked about preference regarding the use of cardiopulmonary resuscitation (F2000A = [1,2]) no more than 7 days prior to admission or within 5 days of the admission date (-7 ≥ F2000B – A0220 ≤ 5 and F2000B ≠ [-,^]); - OR - The patient/responsible party was asked about preferences regarding life-sustaining treatments other than CPR (F2100A = [1,2]) no more than 7 days prior to admission or within 5 days of the admission date (-7 ≥ F2100B – A0220 ≤ 5 and F2100B ≠ [-,^]); - OR - The patient/responsible party was asked about preference regarding hospitalization (F2200A = [1,2]) no more than 7 days prior to admission or within 5 days of the admission date (-7 ≥ F2200B – A0220 ≤ 5 and F2200B ≠ [-,^]). Denominator All patient stays except for those with exclusions. Exclusions¹ Patient stays are excluded if the patient is: - Under 18 years of age as indicated by the birth date (A0900) and admission date (A0220); - OR - Type 2 and 3 patient stays.

¹ Note that the length of stay criterion has been removed from the exclusions. This modification will be submitted to and reviewed to the NQF.

**Table 3-2:
Beliefs/Values Addressed (if desired by the patient)
(modified NQF #1647)**

Measure Description
The percentage of hospice patients with documentation of a discussion of spiritual/existential concerns or documentation that the patient and/or caregiver did not want to discuss.
All items are from the admission record of the stay
Numerator Type 1 patients stays are included in the numerator if they meet the following criteria: - The patient and/or caregiver was asked about spiritual/existential concerns (F3000A = [1,2]) no more than 7 days prior to admission or within 5 days of the admission date (-7 ≥ F3000B – A0220 ≤ 5 and F3000B ≠ [-,^]) Denominator All patient stays except for those with exclusions. Exclusions¹ Patient stays are excluded if the patient is: - Under 18 years of age as indicated by the birth date (A0900) and admission date (A0220); OR - Type 2 or 3 patient stays.

¹ Note that the length of stay criterion has been removed from the exclusions. This modification will be submitted to and reviewed to the NQF.

**Table 3-3:
Pain Screening (NQF #1634)**

Measure Description
The percentage of hospice patients who were screened for pain during the initial nursing assessment.
All items are from the admission record of the stay
Numerator Type 1 patient stays are included in the numerator if they meet the following criteria: - The patient was screened for pain within 2 days of the admission date (J0900B – A0220 ≤ 2 and J0900B ≠ [-,^]) and reported that they had no pain (J0900C = [0]); OR - The patient was screened for pain within 2 days of the admission date (J0900B – A0220 ≤ 2 and J0900B ≠ [-,^]), the patient's pain severity was rated mild, moderate, or severe (J0900C = [1,2,3]), and a standardized pain tool was used (J0900D = [1,2,3,4]). Denominator All patient stays except for those with exclusions. Exclusions¹ Patient stays are excluded if the patient is: - Under 18 years of age as indicated by the birth date (A0900) and admission date (A0220); OR - Type 2 or 3 patient stays.

¹ Note that the length of stay criterion has been removed from the exclusions. This modification will be submitted to and reviewed to the NQF.

**Table 3-4:
Pain Assessment (NQF #1637)**

Measure Description
The percentage of hospice patients who screened positive for pain and who received a comprehensive assessment of pain within 1 day of screening.
All items are from the admission record of the stay
Numerator Type 1 patient stays are included in the numerator if they meet the following criteria: - A comprehensive pain assessment was completed within 1 day of the pain screening during which the patient was screened positive for pain (J0910B – J0900B ≤ 1 and J0910B and J0900B ≠ [-,^]) and included at least 5 of the following characteristics: location, severity, character, duration, frequency, what relieves or worsens the pain, and the effect on function or quality of life (5 or more items in J0910C1 – J0910C7 checked and not all J0910C boxes = [-,^]). Denominator Patient stays, except for those with exclusions, are included in the denominator if they meet the following criteria: - The patient's pain severity was rated mild, moderate, or severe (J0900C = [1,2,3]). Exclusions¹ Patient stays are excluded if the patient is: - Under 18 years of age as indicated by the birth date (A0900) and admission date (A0220); OR - Type 2 or 3 patient stays.

¹ Note that the length of stay criterion has been removed from the exclusions. This modification will be submitted to and reviewed to the NQF.

**Table 3-5:
Dyspnea Screening (NQF #1639)**

Measure Description
The percentage of hospice patients who were screened for dyspnea during the initial nursing assessment.
All items are from the admission record of the stay
Numerator Type 1 patient stays, except for those with exclusions, are included in the numerator if they meet the following criteria: - The patient was screened for shortness of breath within 2 days of the admission date (J2030B – A0220 ≤ 2 and J2030B ≠ [-,^]). Denominator All patient stays except for those with exclusions. Exclusions¹ Patient stays are excluded if the patient is: - Under 18 years of age as indicated by the birth date (A0900) and admission date (A0220); OR - Type 2 or 3 patient stays.

¹ Note that the length of stay criterion has been removed from the exclusions. This modification will be submitted to and reviewed to the NQF.

**Table 3-6:
Dyspnea Treatment (NQF #1638)**

Measure Description
The percentage of hospice patients who screened positive for dyspnea who received treatment within 1 day of the screening.
All items are from the admission record of the stay
Numerator Type 1 patient stays are included in the numerator if they meet the following criteria: - The patient declined treatment (J2040A = [1]); - OR - Treatment for shortness of breath was initiated prior to the screening for shortness of breath or within 1 day of the screening for shortness of breath during which the patient screened positive for shortness of breath (J2040B – J2030B ≤ 1 and J2040B and J2030B ≠ [-,^]). Denominator Patient stays, except for those with exclusions, are included in the denominator if they meet the following criteria: - The screening indicated the patient had shortness of breath (J2030C = [1]). Exclusions¹ Patient stays are excluded if the patient is: - Under 18 years of age as indicated by the birth date (A0900) and admission date (A0220); - OR - Type 2 or 3 patient stays.

¹ Note that the length of stay criterion has been removed from the exclusions. This modification will be submitted to and reviewed to the NQF.

Table 3-7:
Patients Treated with an Opioid who are Given a Bowel Regimen
(NQF #1617)

Measure Description
The percentage of vulnerable adults treated with an opioid that are offered/prescribed a bowel regimen or documentation of why this was not needed.
All items are from the admission record of the stay
Numerator Type 1 patient stays are included in the numerator if they meet the following criteria: - There is documentation of why a bowel regimen was not initiated or continued (N0520A = [1]); OR - A bowel regimen was initiated or continued within 1 day of a scheduled opioid being initiated or continued (N0520B – N0500B ≤ [1] and N0520B and N0500B ≠ [-,^]). Denominator Patient stays, except for those with exclusions, are included in the denominator if they meet the following criteria: - A scheduled opioid was initiated or continued (N0500A = [1]). Exclusions¹ Patient stays are excluded if the patient is: - Under 18 years of age as indicated by the birth date (A0900) and admission date (A0220); OR - Type 2 or 3 patient stays.

¹ Note that this measure does not have the length of stay exclusion. No changes have been made to this measure.