

**Quality ID #478: Functional Status Change for Patients with Neck Impairments**  
– National Quality Strategy Domain: Person and Caregiver-Centered Experience and Outcomes  
– Meaningful Measure Area: Functional Outcomes

**2020 COLLECTION TYPE:**  
**MIPS CLINICAL QUALITY MEASURES (CQMS)**

**MEASURE TYPE:**  
Patient-reported outcome – High Priority

**DESCRIPTION:**  
This is a patient-reported outcome performance measure (PRO-PM) consisting of a patient-reported outcome measure (PROM) of risk-adjusted change in functional status (FS) for patients aged 14+ with neck impairments. The change in FS is assessed using the Neck FS PROM.\* The measure is risk-adjusted to patient characteristics known to be associated with FS outcomes. It is used as a performance measure at the patient, individual clinician, and clinic levels to assess quality

\*The Neck FS PROM is an item-response theory-based computer adaptive test (CAT). In addition to the CAT version, which provides for reduced patient response burden, it is available as a 10-item short form (static/paper-pencil).

**INSTRUCTIONS:**  
This outcome measure is to be submitted **once per Treatment Episode** for all patients with a functional deficit related to the neck. This is an outcome measure, and its calculation requires submitting of the patient's FS PROM score, as a minimum, at the start (Initial Evaluation or Intake) and again at the conclusion (Discharge) of a Treatment Episode. The Initial Evaluation score is recorded during the first treatment encounter, and the Discharge score is recorded at or near the conclusion of the final treatment encounter. It is anticipated that Merit-based Incentive Payment System (MIPS) eligible clinicians providing treatment for functional neck deficits will submit this measure.

**Measure Submission Type:**  
Measure data may be submitted by individual MIPS eligible clinicians, groups, or third party intermediaries. The listed denominator criteria are used to identify the intended patient population. The numerator options included in this specification are used to submit the quality actions as allowed by the measure. The quality-data codes listed do not need to be submitted by MIPS eligible clinicians, groups, or third party intermediaries that utilize this modality for submissions; however, these codes may be submitted for those third party intermediaries that utilize Medicare Part B claims data. For more information regarding Application Programming Interface (API), please refer to the Quality Payment Program (QPP) website.

**DENOMINATOR:**  
Patients aged 14+ who initiated rehabilitation therapy, chiropractic, or medical episodes of care for neck impairments including but not limited to cervical (neck) pain, radiculopathy, strain, sprain, stenosis, myelopathy, spondylosis or disc disorders

**Denominator Criteria (Eligible Cases):**

Patients 14 years and older

**AND**

**Patient encounter during the performance period identifying evaluation (CPT or M-code):** 97161, 97162, 97163, 97165, 97166, 97167, 99201, 99202, 99203, 99204, 99205, 99212, 99213, 99214, 99215, 98940, 98941, 98942, 98943 or M1143

**NUMERATOR:**

The proportion of a provider's (clinic's or clinician's) patient care episodes that met or exceeded the risk-adjusted predicted Residual Change Score

**Definition:**

The Residual Change Score is defined as the difference between the Actual and Predicted Change Scores where

- The Actual Score is the patient's Functional Status (FS) Score,
- The Actual Change Score is the change in the patient's FS score from Admission to Discharge, and
- The Predicted Change Score is the risk-adjusted prediction of FS change

**Calculating the Residual Change Score, Example:**

Actual Score at Admission = 45  
Actual Score at Discharge = 60  
Actual Change Score (Discharge minus Admission) = +15  
Predicted Change Score = +10  
Residual (Actual Change minus Predicted) = +5

**NUMERATOR NOTE:** Performance may be calculated on 3 levels as follows:

1. *Patient Level: For the individual patient episode, the patient's Actual FS scores relative to the risk-adjusted predicted. This level should be used for optimizing care as described below.\**
2. *Clinician Level: The average of the Residuals for patient care episodes managed by a clinician (individual provider) over a 12 month time period.*
3. *Clinic Level: The average of the Residuals for patient care episodes managed by a group of clinicians within a clinic over a 12 month time period.*

*\* A provider's (clinician's or clinic's) performance must be assessed based on an average all of the provider's patient episodes. On the level of the individual patient, variation is expected. When an individual episode does not result in meeting or exceeding the performance standard, the functional data should be useful to the provider in optimizing the balance of effectiveness/efficiency for that particular care episode. For example, if patient-perceived function is not improving, or has plateaued in progress, that data may be a component of provider-patient communication and care decision-making such as the following examples:*

1. *Does the provider understand the patient's perception of his/her current level of function?*
2. *Should the treatment plan be modified?*
3. *Should the patient be discharged sooner than later?*
4. *Should the patient be referred to a different care provider?*

**Numerator Options:**

**Performance Met:**

The Residual Change Score is equal to or greater than 0 (**G2152**)

**OR**

**Denominator Exception:**

Patient refused to participate at admission and/or discharge; patient unable to complete the Neck FS PROM at admission or discharge due to cognitive deficit, visual deficit, motor deficit, language barrier, or low reading level, and a suitable proxy/recorder is not available; patient self-discharged early; medical reason (**G2166**)

**OR**

**Performance Not Met:**

The Residual Change Score is less than 0 (**G2167**)

## **RATIONALE:**

The findings by Wang and colleagues supported the uni-dimensionality and local independence of responses to the Neck FS PROM CAT. The items were found to have negligible differential item functioning and no ceiling or floor effects. The CAT-based measure yielded precision equal to a fixed measure that included all items. N=439, age 48.4 +/- 13.8, 59% female (Wang et al. 2015).

The primary sample in the study by Deutscher et al. included 250,741 patients, ages 14-89, who completed the Neck FS PROM CAT at admission (age/SD=54/16; 65% women). Of these, 169,039 patients completed the Neck FS CAT at discharge, resulting in a completion rate of 67%. The scale-level reliability of the Neck FS CAT was 0.91. Standard Errors of Measurement (SEMs) were stable across the measurement continuum ranging from 3.7 to 3.9 points (range = 0 to 100), which corresponds to 6.1 to 6.4 points at the 90% confidence interval (CI). Minimal Detectable Improvement (MDI) at the 90% CI ranged between 6.6 to 7.0 points. A half standard deviation of baseline scores was 6.2 points. Minimal clinically important improvement (MCII) estimates ranged from 15 to 4 points from 1st to 4th quartile of baseline Neck FS CAT scores, respectively. Thus, greater change was needed to achieve MCII for patients with lower baseline functional status. The majority of patients (61%) demonstrated functional staging change during treatment (Deutscher et al. 2018).

## **CLINICAL RECOMMENDATION STATEMENTS:**

PROMs are increasingly advocated as necessary components of an overall strategy to improve healthcare (Black 2013; Griggs et al. 2017) and are advocated for use in clinical decision making in clinical practice guidelines pertaining to neck impairments (Blanpied et al. 2017; Bier et al. 2018; Childs et al. 2008; Baisden et al. 2010; Bono et al. 2011). Placing risk-adjusted Neck FS PROM data directly into the hands of the provider embodies the definition of patient-centered healthcare and is consistent with National Quality Forum's vision to achieve performance improvement and accountability through patient-reported outcomes (National Quality Forum 2013). This approach improves quality of care by promoting improved communication between provider and patient and enhancing the provider's understanding of the patient's perception of functional status. The Neck FS PROM and PRO-PM results can be shared with the patient to further promote patient engagement.

## **COPYRIGHT:**

The functional status change for patients with neck impairments measure is available in both short form (static/paper-pencil) and computer adaptive test formats, together with a scoring table and risk adjustment specifications, free of charge for the purposes of individual clinical practice, ie, patient-level measurement, including but not limited to for the purposes of participation in the CMS Quality Payment Programs.

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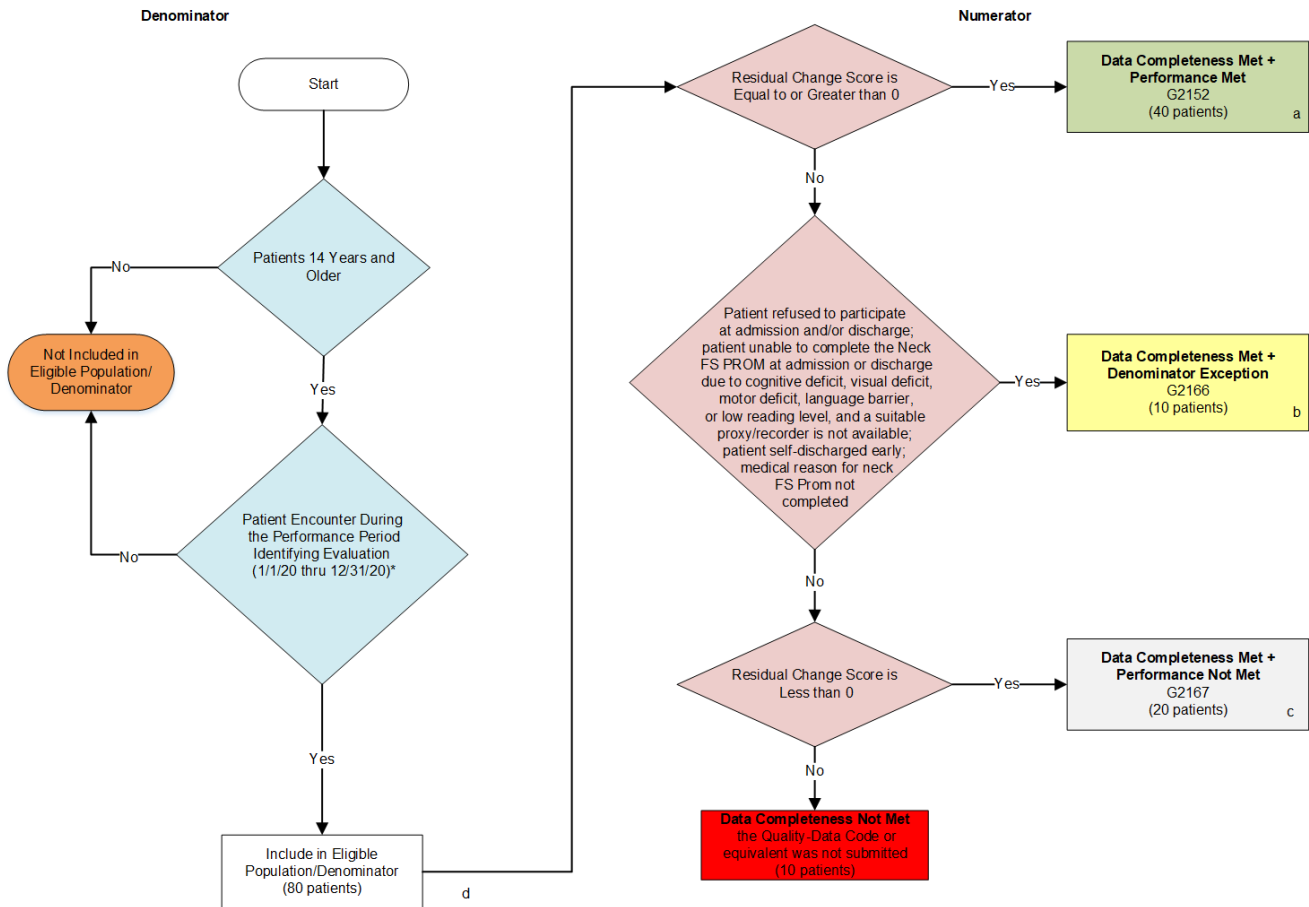
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**2020 Clinical Quality Measure Flow for Quality ID #478:  
Functional Status Change for Patients with Neck Impairments**

*Disclaimer: Refer to the measure specification for specific coding and instructions to submit this measure.*



**SAMPLE CALCULATIONS:**

**Data Completeness=**  
 Performance Met (a=40 patients) + Denominator Exception (b=10 patients) + Performance Not Met (c=20 patients) =  $\frac{70 \text{ patients}}{80 \text{ patients}}$  = 87.50%

**Performance Rate=**  
 $\frac{\text{Performance Met (a=40 patients)}}{\text{Data Completeness Numerator (70 patients) - Denominator Exception (b=10 patients)}}$  =  $\frac{40 \text{ patients}}{60 \text{ patients}}$  = 66.67%

\*See the posted measure specification for specific coding and instructions to submit this measure.

NOTE: Submission Frequency: Patient-Process

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**2020 Clinical Quality Measure Flow Narrative for Quality ID #478:  
Functional Status Change for Patients with Neck Impairments**

**Disclaimer:** Refer to the measure specification for specific coding and instructions to submit this measure.

1. Start with Denominator
2. Check Patient Age
  - a. If Patients 14 years and Older equals No during the measurement period, do not include in Eligible Population. Stop Processing.
  - b. If Patients 14 years and Older equals Yes during the measurement period, proceed to Check Initiated Episode of Rehabilitation Therapy, Medical, or Chiropractic Care for Neck Impairment.
3. Check Initiated Episode of Rehabilitation Therapy, Medical, or Chiropractic Care for Neck Impairment
  - a. If Initiated Episode of Rehabilitation Therapy, Medical, or Chiropractic Care for Neck Impairment equals No, do not include in Eligible Population. Stop Processing.
  - b. If Initiated Episode of Rehabilitation Therapy, Medical, or Chiropractic Care for Neck Impairment equals Yes, proceed to Denominator Population.
4. Denominator Population
  - a. Denominator Population is all Eligible Patients in the Denominator. Denominator is represented as Denominator in the Sample Calculation listed at the end of this document. Letter d equals 80 patients in the Sample Calculation.
5. Start Numerator
6. Check Residual Change Score is Equal to or Greater than 0
  - a. If Residual Change Score is Equal to or Greater than 0 equals Yes, include in Data Completeness Met and Performance Met.
  - b. Data Completeness Met and Performance Met letter is represented in the Data Completeness and Performance Rate in the Sample Calculation listed at the end of this document. Letter a equals 40 patients in the Sample Calculation.
  - c. If Residual Change Score is Equal to or Greater than 0 equals No, proceed to Check Denominator Exceptions.
7. Check Denominator Exceptions: Patient Refusal of Neck FS PROM at Admission/Discharge, Patient Unable to Complete Neck FS PROM at Admission/Discharge, Patient Self-Discharged Early, Medical Reason for Neck FS PROM Not Completed
  - a. If Denominator Exceptions equal Yes, include in Data Completeness Met and Denominator Exception.
  - b. Data Completeness Met and Denominator Exception is represented by letter b in the Sample Calculation listed at the end of this document. Letter b equals 10 patients in the Sample Calculation.
  - c. If Denominator Exceptions equal No, proceed to Check Residual Change Score is Less than 0
8. Check Residual Change Score is less than 0

- a. If Residual Change Score is less than 0 equals Yes, include in Data Completeness Met and Performance Not Met.
  - b. Data Completeness Met and Performance Not Met letter is represented in the Data Completeness in the Sample Calculation listed at the end of this document. Letter c equals 20 patients in the Sample Calculation.
  - c. If Residual Change Score is less than 0 equals No, Check Data Completeness Not Met.
9. Check Data Completeness Not Met:
- a. If Data Completeness Not Met, the Quality Data Code or equivalent was not submitted. 10 patients have been subtracted from Data Completeness Numerator in the Sample Calculation.

**SAMPLE CALCULATIONS:**

**Data Completeness=**  

$$\frac{\text{Performance Met (a=40 patients)} + \text{Denominator Exception (b=10 patients)} + \text{Performance Not Met (c=20 patients)}}{\text{Eligible Population / Denominator (d=80 patients)}} = \frac{70 \text{ patients}}{80 \text{ patients}} = 87.50\%$$

**Performance Rate=**  

$$\frac{\text{Performance Met (a=40 patients)}}{\text{Data Completeness Numerator (70 patients) - Denominator Exception (b=10 patients)}} = \frac{40 \text{ patients}}{60 \text{ patients}} = 66.67\%$$