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REPORT

RAND/UCLA Quality-of-Care Measures for Carpal Tunnel Syndrome

Appendix IV, Part A: Quality Measures: Materials for Scoring Main Set of Measures (Scoring Instructions)

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Appendix IV: Quality Measures: Materials for Scoring Main Set of Measures (Scoring Instructions, Guidance Document, and Data Forms)
Main Set of Quality Measures: Scoring Instructions

The purpose of the Scoring Instructions is to provide basic information that can be used to determine how to score the quality measures and related variables. Because the Scoring Instructions are long, recording data for individual patients on it would use a lot of paper. Instead, data for individual patients can be recorded on the separate and much shorter Data Form. Thus, if the Scoring Instructions are analogous to a test you might take in school, the Data Form is analogous to the sheet on which you record your answers to test questions. The Guidance Document contains detailed definitions and instructions; abstractors should refer to that document before scoring the measures and variables the first time, if they encounter unusual situations, or if they have any detailed questions.

In these documents, questions are numbered as follows:

- Questions pertaining to section or subsection eligibility are indicated by an “E” after the question.
- Questions pertaining to individual measures are indicated by “M” after the question number.
  - “ME” means that the question pertains to eligibility for the measure.
  - “MC” means that the question addresses components of an individual measure.
  - “MA” means that the question addresses whether or not care adhered to the requirements of the measure.
- Additional variables that are not directly related to an individual measure are indicated by “V” after the question number.
- In Section 1, score questions for all patients. For those who prove eligible based on responses to these questions, some or all of Sections 2 through 15 will apply.
SECTION 1: ANCILLARY VARIABLES:
DEMographics AND determinationg STUDY HAND

Record data on the Data Form.

1.01.V Basis for Patient Selection

If ICD-9 codes and CPT codes listed in administrative data were used to select patients, which of the following categories was the basis for selecting this patient?

☐ Neurologic disease other than CTS: Patients who have neurological conditions that can cause paresthesias or numbness in the fingers, excluding patients diagnosed with CTS.

☐ Non-neurologic disease: Patients who have conditions other than CTS that can cause pain in the hand or forearm.

☐ CTS without surgery: Patients who have been diagnosed with CTS and have NOT undergone carpal tunnel release surgery. Additional conditions can be present or not.

☐ CTS with surgery: Patients who have been diagnosed with CTS and HAVE undergone carpal tunnel release surgery. Additional conditions can be present or not.

☐ Other selection method.

1.02.V Study Eligibility: Patient Has History of Hand or Forearm Complaints

Does the medical record indicate that the patient has ever experienced pain, paresthesias, or numbness in the hand or forearm during the study period?

☐ YES → Go to the next question

☐ NO → Patient is not eligible for the study, STOP SCORING

☐ UNCLEAR/MISSING → Patient is not eligible for the study, STOP SCORING

1.03.V Age at End of Study Period

1.04.V Gender: Choose the single best response

☐ Male

☐ Female
1.05.V Race: Choose the single best response.

- White
- Black
- American Indian/Alaska Native
- Asian
- Native Hawaiian or Other Pacific Islander
- More Than One Race
- UNCLEAR/MISSING

1.06.V Ethnicity

- Hispanic or Latino
- Not Hispanic or Latino
- UNCLEAR/MISSING

Obtain answers to V1.07 and V1.08 from the Workers’ Compensation Claim Form:

1.07.V Occupation: ______________________________________________

1.08.V Zip Code of Patient Residence: _______________ (optional)

1.09.V Hand with Workers’ Compensation Claim: Which hands have workers’ compensation claims? Select one.

- Right hand
- Left hand
- Both hands
- UNCLEAR/MISSING

1.10.V Handedness: Which hand is documented in the medical record or on the Workers’ Compensation Claim Form as the dominant hand?

- Right hand
- Left hand
- UNCLEAR/MISSING
1.11.V Bilateral Symptoms: Does the patient have any evidence that these symptoms are bilateral?

☐ YES → Go to the next question

☐ NO → Skip to question 1.13.V

☐ UNCLEAR/MISSING → Go to question 1.13.V and score as if patient has bilateral symptoms

1.12.V Hand That Developed Symptoms First

☐ Right hand

☐ Left hand

☐ UNCLEAR/MISSING

1.13.V Study Hand When Patient Has Bilateral Symptoms: Select the best choice from the following hierarchy.

☐ First choice: Choose the hand with the workers’ compensation claim as the study hand

----------If both hands are covered by a workers’ compensation claim----------

☐ Second Choice: If both hands are covered by workers’ compensation claims, choose the hand that developed symptoms first as the study hand

☐ Third choice: If both hands are covered by workers’ compensation claims and it is unclear which hand developed symptoms first, use the dominant hand as the study hand

☐ Fourth choice: If both hands are covered by workers’ compensation claims, it is unclear which hand developed symptoms first, and hand dominance is unclear, use the right hand as the study hand

----------If neither hand is covered by a worker’s compensation claim----------

☐ Fifth choice: If neither hand is covered by a worker’s compensation claim, choose the hand that developed symptoms first as the study hand

☐ Sixth choice: If neither hand is covered by a worker’s compensation claim and it is unclear which hand developed symptoms first, choose the dominant hand as the study hand.

☐ Seventh choice: If neither hand is covered by workers’ compensation claim and it is unclear which hand is the dominant hand, choose the right hand as the study hand.

After this point, score all remaining questions ONLY for the study hand.
SECTION 2: MILESTONES FOR THE CURRENT EPISODE OF CTS

Record data on the Data Form.

The table below lists milestones that represent events in the clinical course of care and in the course of the workers’ compensation claim. In each case, the milestones only apply to the “study hand.” Several of the milestones pertain to eligibility for the measures. Some of the milestones are drawn from the medical record and others are drawn from the workers’ compensation claim form. Document the date at which each milestone first occurred. If this was before the study period, enter “before study period” instead of the date.

<table>
<thead>
<tr>
<th>Milestone #</th>
<th>Milestones for the Study Hand ONLY</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Milestones From Medical Record</strong></td>
</tr>
<tr>
<td>1</td>
<td>2.01.V Documentation of Presentation: First documentation of new pain, paresthesias, or numbness in the hand or forearm (first ever, or first new recurrence after no treatment for two years)</td>
</tr>
<tr>
<td>2</td>
<td>2.02.V Evaluation: Initial evaluation of those symptoms by any provider who can treat a musculoskeletal disorder.</td>
</tr>
<tr>
<td>3</td>
<td>2.03.V Suspicion: First visit for which the medical record indicates that CTS was suspected</td>
</tr>
<tr>
<td>4</td>
<td>2.04.V Diagnosis: First visit at which CTS was diagnosed</td>
</tr>
<tr>
<td>5</td>
<td>2.05.V Work-association: First visit at which CTS symptoms were judged to be work-associated</td>
</tr>
<tr>
<td>6</td>
<td>2.06.V Off Work: First date at which patient was on temporary total disability due to CTS symptoms</td>
</tr>
<tr>
<td>7</td>
<td>2.07.V Surgery: Date of first carpal tunnel release surgery (exclude re-operations)</td>
</tr>
<tr>
<td>8</td>
<td>2.08.V Release to Return to Work: Date that the patient was first released to return to work</td>
</tr>
<tr>
<td></td>
<td><strong>Milestones From Initial Workers’ Compensation Claim Form</strong></td>
</tr>
<tr>
<td>n/a</td>
<td>2.09.V Date of Injury or Illness</td>
</tr>
<tr>
<td>n/a</td>
<td>2.10.V Date of Examination or Treatment</td>
</tr>
</tbody>
</table>
SECTION 3: CTS AS POSSIBLE CAUSE OF SYMPTOMS

Record data on the Data Form.

3.01.E Eligibility for Measures in Section 3

Does the provider ever document new paresthesias or numbness in the fingers during the designated study period; **AND** can the visit at which a provider first evaluated those symptoms be identified in the medical record (this will be Milestone 2 unless the patient initially presented with pain as the only symptom)?

- **YES** → Eligible for Section 3, continue
- **NO or UNCLEAR or MISSING RECORDS** → Not eligible for Section 3, skip to Section 4

3.02.M New symptoms characteristic of CTS require detailed assessment

During this visit, are the following noted? **Select all that apply.** ("MC" refers to Measure Component; document this information on the Data Form).

- **MC.1 Location:** a verbal or pictorial description of the location of any pain, numbness, or paresthesias in the fingers, including a description of which fingers are affected (e.g., Katz hand diagram)
- **MC.2 Quality:** the severity or quality of any pain, numbness, or paresthesias, such as burning, sharp, dull
- **MC.3 Duration:** when any pain, numbness, or paresthesias began or how long they have been present
- **MC.4 Onset:** time course of any pain, numbness or parathesias, meaning manner of onset and any changes over time

----------------------Summarize Adherence----------------------

- **TWO or MORE** → Pass, go to next measure
- **NONE or ONE or UNCLEAR** → No Pass, go to next measure
3.03.M New symptoms characteristic of CTS should lead to suspicion

Eligibility: Did the new paresthesias or numbness in the fingers affect the first, second, and/or third finger?

☐ YES ➔ Eligible for this measure, continue
☐ NO or UNCLEAR or MISSING RECORDS ➔ Not eligible for this measure, skip to next section

Adherence: Was a suspicion or diagnosis of CTS explicitly documented (not implied) in the medical record at or before the visit at which the symptoms were first evaluated?

☐ YES ➔ Pass, go to next section
☐ NO or UNCLEAR ➔ No Pass, go to next section
SECTION 4: SYMPTOMS AND SIGNS OF CTS VS. OTHER CONDITIONS

Record data on the Data Form.

4.01.M New hand or forearm pain requires evaluation for “red flags”

**Eligibility**: Did any provider ever *explicitly document* in the progress notes that the patient complained of new hand or forearm pain in the study hand at a visit during the designated study period?

- □ YES → Eligible for this measure, continue
- □ NO or UNCLEAR or MISSING RECORDS → Not eligible for this measure, skip to next measure

**Adherence**: In the progress notes for that visit, was the presence or absence of the following documented? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

- □ MC.1 Trauma
- □ MC.2 Deformity: Any deformity, including swelling
- □ MC.3 Fever

--------------------------Summarize Adherence--------------------------

- □ ONE or MORE → Pass, go to next measure
- □ NONE or UNCLEAR → No Pass, go to next measure
4.02.M New suspicion of CTS requires specific physical examination

Eligibility: Does the medical record indicate that CTS was newly suspected or diagnosed (Milestone 3 or 4) during the designated study period; AND can the visit at which a provider first evaluated those symptoms be identified (Milestone 2)?

- YES → Eligible for this measure, continue
- NO or UNCLEAR or MISSING RECORDS → Not eligible for this measure, skip to next measure

Adherence: Does the medical record for this visit (Milestone 2) document the examination maneuvers below? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

- MC.1 Sensibility: Testing for sensory abnormalities in median nerve distribution
- MC.2 Strength: Testing for thenar muscle weakness (thumb abduction or opposition)
- MC.3 Atrophy: Examination for thenar muscle atrophy

------------------------Summarize Adherence-------------------------------

- ONE or MORE → Pass, continue to next measure
- NONE or UNCLEAR → No Pass, continue to next measure

4.03.M New symptoms inconsistent with CTS require evaluation

Eligibility: Did the patient ever complain of hand or forearm pain AND new fever, new point tenderness, or new deformity in the study hand at a visit during the designated study period?

- YES → Eligible for this measure, continue
- NO or UNCLEAR or MISSING RECORDS → Not eligible for this measure, skip to next section

Adherence: Was at least one diagnosis other than CTS evaluated at this visit?

- YES → Pass, continue to next section
- NO or UNCLEAR → No Pass, continue to next section
SECTION 5: IMAGING STUDIES

Record data on the Data Form.

5.01.M Imaging should be used selectively for suspected CTS

Eligibility: Does the medical record indicate that CTS was ever suspected or diagnosed (Milestone 3 or, if missing, Milestone 4) during the designated study period AND do the records provide at least 6 weeks of documented follow-up in the study period?

- YES → Eligible for this measure, continue
- NO or UNCLEAR or MISSING RECORDS → Not eligible for this measure, skip to next section

Adherence: After this visit, was an MRI of this wrist, ultrasound of this wrist, or CT of this wrist performed?

- NO or UNCLEAR → Pass, skip to next section
- YES → Continue

Is there evidence in the medical record that the provider suspected a structural lesion in this wrist before the MRI, ultrasound, or CT was performed?

- YES → Pass, skip to next section
- NO or UNCLEAR → Continue

Is there evidence in the medical record that an electrodiagnostic test was performed on this wrist before the MRI, ultrasound, or CT was ordered or performed?

- YES → Pass, go to next section
- NO or UNCLEAR → No Pass, go to next section

MEASURES PERTAINING TO ELECTODIAGNOSTIC TESTS ARE SCORED ON A SEPARATE WORKSHEET BY EXPERTS IN ELECTODIAGNOSTIC TESTING.
SECTION 6: NON-OCCUPATIONAL RISK FACTORS AND EXACERBATING FACTORS

Record data on the Data Form.

Subsection 6A: Medical Risk Factors

6.01.M New suspicion of CTS requires evaluation for excessive weight

Eligibility: Does the medical record indicate that CTS was newly suspected (Milestone 3 or, if missing 4) during the designated study period AND can the visit at which a provider first evaluated the CTS symptoms (Milestone 2) be identified?

- YES → Eligible for this measure, continue
- NO or UNCLEAR or MISSING RECORDS → Not eligible, go to next Section

Adherence: Does the medical record for this visit (Milestone 2) document height and weight or a clinical judgment about presence or absence of obesity/overweight at that visit? Consider all that apply.

- Documentation of height and weight
- Clinical judgment about presence or absence of obesity/overweight

------------------------ Summarize Adherence ------------------------
- ONE or BOTH → Pass, go to next measure
- NONE or UNCLEAR → No Pass, go to next measure

6.02.E Eligibility for Measures 6.03.M and 6.04.M

Does the medical record indicate ALL of the following:

- CTS was newly diagnosed (Milestone 4) during the designated study period
- The visit at which a provider first evaluated the CTS symptoms (Milestone 2) can be identified
- There are at least two CTS related visits after Milestone 2 within the study period.

------------------------ Summarize Eligibility ------------------------
- YES to ALL → Eligible for measures, continue
- NO or UNCLEAR or MISSING RECORDS → Not eligible for measures, skip to next section
6.03.M New CTS diagnosis requires assessment of medical risk factors

From the initial evaluation of the CTS symptoms (Milestone 2) through the subsequent two CTS-related visits, does the medical record document the presence or absence of the following risk factors? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

- **MC.1 Arthritis:** Rheumatoid or other arthritis
- **MC.2 Diabetes:** Diabetes mellitus
- **MC.3 Hypothyroid:** Hypothyroidism
- **MC.4 Pregnancy (if female)**
- **MC.5 Kidney Disease:** Chronic renal insufficiency

Summarize Adherence

- ONE or MORE → Pass, go to next measure
- NONE (or UNCLEAR) → No Pass, go to next measure

Subsection 6B: Non-Occupational Exacerbating Factors

6.04.M New CTS diagnosis requires assessment of non-occupational factors

From the time of the initial evaluation of the CTS symptoms (Milestone 2) through the subsequent two CTS-related visits, does the medical record document the presence or absence of exposures to the following for non-occupational settings? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

- **MC.1 Force:** Substantial exertion using the hands
- **MC.2 Vibration:** Vibrating power tools
- **MC.3 Frequency:** Frequent repetitive wrist movements

Summarize Adherence

- ONE or MORE → Pass, go to next measure
- NONE (or UNCLEAR) → No Pass, go to next measure
SECTION 7: WORK-ASSOCIATED CTS SYMPTOMS

Record data on the Data Form.

7.01.E Eligibility for Sections 7 through 15

Does the medical record indicate that CTS was ever diagnosed in this patient (Milestone 4) before the end of the study period?

- YES → Eligible, continue
- NO or UNCLEAR or MISSING RECORDS → Not eligible for any more measures, STOP

SCORING

Subsection 7A. Occupational Exacerbating Factors

7.02.E Eligibility for Measures 7.03.M and 7.04.M

Does the medical record indicate ALL of the following:

- CTS was newly diagnosed (Milestone 4) during the designated study period
- The visit at which a provider first evaluated the CTS symptoms (Milestone 2) can be identified
- There are at least two CTS related visits after Milestone 2 within the study period.

--------------Summarize Eligibility--------------------------

- YES to ALL → Eligible for measures, continue
- NO or UNCLEAR or MISSING RECORDS → Not eligible, skip to measure 7.05.M

7.03.M New CTS diagnosis requires detailed occupational history

From the time of the initial evaluation of the CTS symptoms (Milestone 2) through two subsequent CTS-related visits, does the medical record document the following? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

- MC.1 Lack of job: Lack of paid employment
- MC.2 Job Duties: Occupation including functional job duties
- MC.3 Duration: Duration at current or most recent occupation
- MC.4 Timing: Whether symptoms improve or worsen at or after work

--------------Summarize Adherence--------------------------

- ONE or MORE → Pass, go to next measure
- NONE or UNCLEAR → No Pass, go to next measure
7.04.M New CTS diagnosis requires assessment of occupational factors

**Eligibility:** Was the CTS newly diagnosed during the study period and was the patient employed within one month before any of Milestones 1 through 5?

□ YES → Eligible for this measure, continue
□ NO or UNCLEAR or MISSING RECORDS → Not eligible, skip to Section 8

**Adherence:** From the time of the initial evaluation of the CTS symptoms (Milestone 2) through the subsequent two CTS-related visits, does the medical record document the presence or absence of the following for occupational settings? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

□ MC.1 **Force**: Substantial exertion using the hands
□ MC.2 **Vibration**: Vibrating power tools
□ MC.3 **Frequency**: Frequent repetitive wrist movements

---Summarize Adherence---

□ ONE or MORE → Pass, go to next measure
□ NONE or UNCLEAR → No Pass, go to next measure

7.05.M Exacerbating activities should be identified when symptoms limit functioning

**Additional Eligibility:** Did the patient have at least one CTS-related visit during the first three months at or after the initial diagnosis (Milestone 4) AND at that visit did the provider document that occupational OR non-occupational functioning was limited by CTS symptoms?

□ YES → Eligible for this measure, continue
□ NO or UNCLEAR or MISSING RECORDS → Not eligible for measure, go to next subsection

**Adherence:** In the notes for this visit, did the provider document which occupational activities, job duties, or non-occupational activities were associated with worse symptoms?

□ YES → Pass, go to next subsection
□ NO or UNCLEAR → No Pass, go to next subsection
Subsection 7B. Provider Statements Regarding Work-association

7.06.M Rationale for work-association should be documented

Eligibility: Does the medical record indicate that CTS was ever newly diagnosed during the study period (Milestone 4), the patient worked outside the home at the time of diagnosis, AND is there at least one CTS-related visit after Milestone 4 during the study period?

☐ YES → Eligible for this measure, continue
☐ NO or UNCLEAR or MISSING RECORDS → Not eligible, go to next section

Adherence: By the next CTS-related visit after the diagnosis was made (after Milestone 4), did a provider who treats musculoskeletal disorders document in the medical record his or her opinion regarding the probability that the CTS was work associated AND was a rationale for this judgment provided?

☐ YES → Pass, go to next section
☐ NO or UNCLEAR → No Pass, go to next section
SECTION 8: NON-OPERATIVE TREATMENT

Record data on the Data Form.

Subsection 8A. Education and Modified Activity

8.01.M Patients newly diagnosed with CTS should be educated about the condition

Additional Eligibility: Does the medical record indicate that CTS was newly diagnosed during the designated study period (Milestone 4 was during the study period) AND is there at least 4 weeks prior to the end of the study period?

☐ YES → Eligible for this measure, continue
☐ NO or UNCLEAR or MISSING RECORDS → Not eligible, go to next measure

Adherence: Within the first four weeks after the diagnosis (after Milestone 4), does the medical record indicate that a provider who treats musculoskeletal disorders educated the patient about the following? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

☐ MC.1 Diagnosis: That the hand symptoms represent CTS
☐ MC.2 Treatment: Treatments for CTS
☐ MC.3 Prognosis: Likelihood of improvement or worsening
☐ MC.4 Activity: That certain activities may be exacerbating factors
☐ MC.5 Rationale: The rationale for a judgment of work-association
☐ MC.6 Benefits of Working: That unnecessary time off work may not be beneficial
☐ MC.7 Work Modifications: Work-site or work-activity modifications
☐ MC.8 Other: Any other issues relating to CTS

----------------------Summarize Adherence--------------------------

☐ ONE or MORE → Pass, go to next measure
☐ NONE (or UNCLEAR) → No Pass, go to next measure
8.02.M Exposures to vibration, force, and repetition should be minimized

Additional Eligibility: Did any provider who treats musculoskeletal disorders document exposure during the three months after the diagnosis (after Milestone 4) to any one of the following: force, vibration, or frequent repetitive wrist movements?

☐ YES → Eligible for this measure, continue
☐ NO or UNCLEAR or MISSING RECORDS → Not eligible, go to next subsection

Adherence: During the same visit at which those exposures were first documented, did the provider document that activity modification was discussed with the patient?

☐ YES → Pass, go to next subsection
☐ NO or UNCLEAR → No Pass, go to next subsection

Subsection 8B. Splinting

8.03.E Subsection Eligibility

Does the medical record indicate ALL of the following:

☐ The provider prescribed splints to treat CTS symptoms
☐ The visit at which the provider first prescribed the splints can be identified

----------------------Summarize Eligibility----------------------

☐ YES to ALL → Eligible for measures, continue
☐ NO or UNCLEAR or MISSING RECORDS → Not eligible for Subsection 8B, Skip to Subsection 8C

8.04.M Splints should be placed in neutral position

Does the medical record for the visit at which splints were first prescribed document that the splint was adjusted so the wrist was in a neutral position?

☐ YES → Pass, go to next measure
☐ NO or UNCLEAR → No Pass, go to Subsection 8C
8.05.M An attempt at splinting should last at least six weeks.

Additional Eligibility: Are there at least 6 weeks of follow-up during the study period after the splints were prescribed?

☐ YES → Eligible for measure, continue
☐ NO or UNCLEAR or MISSING RECORDS → Not eligible, skip to Section 8C

Adherence: Does the medical record for this visit or any subsequent ones occurring within six weeks document that the splint was prescribed for at least six weeks?

☐ YES → Pass, go to next subsection
☐ NO or UNCLEAR → No Pass, go to next subsection
Subsection 8C. Medication Therapy

8.06.E Additional Eligibility for Subsection 8C

Are there at least 6 weeks of follow-up after the initial diagnosis within the study period?

☐ YES → Eligible for measures, continue
☐ NO or UNCLEAR or MISSING RECORDS → Not eligible, go to Subsection 8D

8.07.M NSAIDs should not be used for CTS

Did a provider document that they prescribed or recommended NSAIDs as treatment for CTS symptoms?

☐ YES → No Pass, go to next measure [Note reverse response options, here yes is NO PASS]
☐ NO or UNCLEAR → Pass, go to next measure

8.08.M Muscle relaxants should not be used for CTS

Did a provider document that they prescribed muscle relaxants as treatment for CTS symptoms?

☐ YES → No Pass, go to next measure [Note reverse response options, here yes is NO PASS]
☐ NO or UNCLEAR → Pass, go to next measure

8.09.M Opiates should not be used for CTS

Did a provider document that they prescribed opiates (opioids) as treatment for CTS symptoms?

☐ YES → No Pass, go to next measure [Note reverse response options, here yes is NO PASS]
☐ NO or UNCLEAR → Pass, go to next measure

8.10.M Diuretics should not be used for CTS

Did a provider document that they prescribed diuretics as treatment for CTS symptoms?

☐ YES → No Pass, go to next measure [Note reverse response options, here yes is NO PASS]
☐ NO or UNCLEAR → Pass, go to next measure
8.11.M Steroid treatment requires discussion of risks

Additional Eligibility: Was the patient prescribed either oral steroids for their CTS symptoms or administered a steroid injection of the carpal tunnel during this period?

☐ YES → Eligible for this measure, continue
☐ NO or UNCLEAR or MISSING RECORDS → Not eligible, go to next measure

Adherence: Within six weeks before the steroids were administered or prescribed, does the medical record document that any risks of steroid treatment were discussed or that the patient has received steroids in the past?

☐ YES → Pass, go to next measure
☐ NO or UNCLEAR or MISSING RECORDS → No Pass, go to next measure

8.12.M Discuss benefits of surgery when offering steroids to patients with severe CTS

Additional Eligibility: The care is eligible if both of the following are true: Consider all that apply.

☐ The patient was offered, prescribed, or administered a steroid injection or oral steroids
☐ A provider who treats musculoskeletal disorders has described the CTS symptoms as severe during the same visit or during a visit in the preceding three months

----------------------Summarize Eligibility--------------------------
☐ BOTH → Eligible for this measure, continue
☐ NONE or UNCLEAR or MISSING RECORDS → Not eligible, go to next measure

Adherence: Does the medical record document that the benefits of surgery were discussed within six weeks before the steroids were administered or prescribed?

☐ YES → Pass, go to next measure
☐ NO or UNCLEAR → No Pass, go to next measure
8.13.M Limit steroid injections to four

Additional Eligibility: Was the patient administered a steroid injection in the carpal tunnel in the study hand during the study period?

- YES ➔ Eligible for this measure, continue
- NO or UNCLEAR or MISSING RECORDS ➔ Not eligible, go to next subsection

Adherence: Consider any that apply to the study hand.

- Patients who received four or fewer injections in the study hand before the end of the study period
- Patients who received five or more injections in the study hand before the end of the study period and refusal of surgery is documented during the six months before the fifth injection.

-------------Summarize Adherence--------------------------

- ONE ➔ No Pass, go to next subsection
- NONE or UNCLEAR ➔ Pass, go to next subsection [Note here NONE is PASS]

Subsection 8D. Lasers

All patients ever diagnosed with CTS are eligible for section 8D.

8.14.M Laser therapy should not be used for CTS

Additional Eligibility: Was there a minimum of three months within the study period for this patient?

- YES ➔ Eligible for this measure, continue
- NO or UNCLEAR or MISSING RECORDS ➔ Not eligible, go to next section

Adherence: Did a provider document that they prescribed or administered laser therapy as treatment for CTS symptoms during the study period?

- YES ➔ No Pass, go to next section [Note reverse response options, here yes is NO PASS]
- NO or UNCLEAR ➔ Pass, go to next section
SECTION 9: FOLLOW-UP

Record data on the Data Form.

Subsection 9A: General Follow-up

9.01.M Symptoms should be monitored after new diagnosis of CTS

Eligibility: Did the patient have at least one CTS-related visit during the first three months after CTS was diagnosed (Milestone 4)?

☐ YES → Eligible for this measure, continue
☐ NO or UNCLEAR or MISSING RECORDS → Not eligible, go to next section

Adherence: At the first such visit, did the notes document that the patient was asked about the presence or absence of changes in at least one of the following symptoms? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

☐ MC.1 Sensory Symptoms: Pain or paresthesias in the first through third digits
☐ MC.2 Weakness: Hand weakness perceived by the patient, such as dropping things, decreased grip strength, etc

-----------------------------Summarize Adherence-----------------------------

☐ ONE or MORE → Pass, go to next measure
☐ NONE (or UNCLEAR) → No Pass, go to next measure

Subsection 9B. Follow-up for Work-Associated CTS

9.02.E Eligibility for Subsection 9B

Did any provider treating the patient’s CTS report that the symptoms were work-associated (Milestone 5)?

☐ YES → Eligible for Subsection 9B, continue
☐ NO or UNCLEAR → Not eligible for Subsection 9B, skip to Section 10
9.03.M Work-associated CTS symptoms require prompt follow-up

Additional Eligibility: Can the visit at which the CTS symptoms were first described as work-associated (Milestone 5) be identified in the medical record during, and ≥ 4 wks before the end of, the study period?

- **YES** → Eligible for this measure, continue
- **NO or UNCLEAR or MISSING RECORDS** → Not eligible, go to next measure

Adherence: Was the patient’s CTS mentioned in the progress note from a follow-up visit with a provider who treats musculoskeletal disorders within 4 weeks of this visit (within 4 weeks after Milestone 5)?

- **YES** → Pass, go to next measure
- **NO or UNCLEAR** → No Pass, go to next measure

9.04.M Work status should be monitored when CTS appears work-associated

Additional Eligibility: Can the visit at which the CTS symptoms were first described as appearing work-associated (Milestone 5) be identified in the medical record AND did the patient have at least one CTS-related follow-up visit during the subsequent three months (within the study period)?

- **YES** → Eligible for this measure, continue
- **NO or UNCLEAR or MISSING RECORDS** → Not eligible, go to next measure

Adherence: At the first such visit, did the notes document whether or not the patient was currently working?

- **YES** → Pass, go to next measure
- **NO or UNCLEAR** → No Pass, go to next measure

9.05.M Steroids for work-associated symptoms require follow-up

Additional Eligibility: Was the patient administered a steroid injection or prescribed oral steroids at least four weeks before the end of the study period?

- **YES** → Eligible for this measure, continue
- **NO or UNCLEAR or MISSING RECORDS** → Not eligible, go to next measure

Adherence: Did the physician administering or prescribing the steroids document a follow-up call or visit with the patient within four weeks?

- **YES** → Pass, go to next measure
- **NO or UNCLEAR** → No Pass, go to next measure

Was the patient off work (i.e., on total disability) for four or more weeks (after Milestone 6) due to CTS-related symptoms during the study period AND was a workers’ compensation claim made associated with this disability?

- YES → Eligible for measures, continue
- NO or UNCLEAR or MISSING RECORDS → Not eligible for measures, skip to next section

9.07.M Return to work after CTS-related disability requires follow-up assessment that includes functional limitations

Additional Eligibility: Was the patient released to return to work at least part time (Milestone 8) during the study period AND were there at least four weeks in the study period following Milestone 8?

- YES → Eligible for this measure, continue
- NO or UNCLEAR or MISSING RECORDS → Not eligible, go to next measure

Adherence: Did the patient receive a follow-up assessment within four weeks of the release to return to work (after Milestone 8) AND did that assessment include documentation of presence or absence of occupational functional limitations?

- YES → Pass, go to next measure
- NO or UNCLEAR → No Pass, go to next measure

9.08.M Prolonged CTS-related disability should trigger evaluation

Was the presence or absence of the following documented in the medical record between the initial presentation with CTS symptoms (Milestone 1) and the first visit occurring at least four weeks after the onset of the CTS-related disability (Milestone 6)? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

- MC.1 Substances: Alcohol or substance abuse
- MC.2 Psychiatric: Depression or anxiety
- MC.3 Other: Other barriers to returning to work

----------------------Summarize Adherence-------------------------------

- ONE or MORE → Pass, go to next section
- NONE (or UNCLEAR) → No Pass, go to next section
SECTION 10: SURGICAL DECISION-MAKING

Record data on the Data Form.

10.01.E First Carpal Tunnel Surgery during Study Period

Does the medical record indicate that this patient underwent carpal tunnel surgery on the study hand for the first time during the study period (Milestone 7)?

- First Release: First surgery on study hand → Eligible for Sections 10 to 13, continue
- No Release: NO surgery on study hand → Eligible for Sections 10 to 11, continue
- Prior Release: Surgery on study hand before the study period → No more relevant measures, STOP SCORING
- UNCLEAR or MISSING RECORDS → No more relevant measures, STOP SCORING

10.02.E Completeness of Preoperative Medical Record

Assess the completeness of the medical record. If the patient did not have carpal tunnel surgery, consider the full study period. If the patient had carpal tunnel surgery, consider the period before surgery.

- Complete: There are at least two months in the study period AND no more than one missing visit record → Eligible for Sections 10 to 13, continue
- Incomplete: There are fewer than two months in the study period OR more than one missing visit record → NOT Eligible for Sections 10 to 12, skip to Section 13

This section includes many variables that are required to determine whether or not surgery would be strongly indicated (meaning necessary/highly appropriate, with potential benefits substantially outweighing risks), of indeterminate appropriateness (risks and benefits are relatively balanced or uncertain), or strongly contra-indicated (inappropriate, with risks substantially outweighing potential benefits). Symptoms and signs are used to determine the probability that the patient has CTS and to assess its severity. Next, the duration of symptoms, the results of electrodiagnostic tests, and the response to any conservative therapy are examined. Finally, these characteristics are used to identify patients with strong indications for carpal tunnel surgery (Section 11) and strong contra-indications against carpal tunnel surgery (Section 12).

10.03.V to 10.08.V Symptoms and Signs

IMPORTANT: Use the Symptoms and Signs Table at the end of the Data Form to document symptoms and signs of CTS (10.03.V through 10.08.V) across multiple CTS-related visits. If the patient had surgery, consider all CTS-related visits during the study period prior to surgery (before Milestone 7). If the patient did not have surgery, consider all CTS-related visits during the study period. If findings did not change between the first visit you record and later ones, recording the later visits is optional. Do record visits and findings when the findings differ from those at the fist visit. The visits in the Symptoms and Signs Table should be listed in chronological order. Make copies of the Symptoms and Signs Table if there are more visits to document than lines in the table. See Guidance Document, Section 10A for definitions of terms.
10.03.V Dates of Visits Before Surgery: Record in Column 1 of the Symptoms and Signs Table at the end of the Data Form.

10.04.V Location of Symptoms: If the medical record for this visit documented the location of the symptoms, how characteristic of CTS was the distribution? Record in Column 2 of the Symptoms and Signs Table.

- **Classic/probable:** Numbness, tingling, burning, or pain in at least 2 of digits 1, 2, or 3. No symptoms on dorsum of hand.
- **Possible:** Numbness, tingling, burning, or pain in at least 1 of digits 1, 2, or 3. Symptoms on dorsum of hand may be present. Select this option if provider never states which fingers are affected.
- **Unlikely:** No symptoms on digits 1, 2, or 3 and no symptoms on radial side of palm.
- **Unclear / Missing**

10.05.V Timing of Symptoms: If the medical record for this visit documented the timing of the symptoms, were they constant or intermittent? Record in Column 3 of the Symptoms and Signs Table.

- **Constant:** Symptoms explicitly described as constant in the medical record.
- **Intermittent:** Symptoms not explicitly described as constant.
- **Unclear / Missing**

10.06.V Thenar Atrophy: Did the medical record for this visit document thenar atrophy or flattening of the thenar muscles on physical examination? Record in Column 4 of the Symptoms and Signs Table.

- Noted as present
- Noted as absent
- Unclear / Missing

10.07.V Weak Thenar Muscles on Exam: Did the medical record for this visit document weakness on thumb abduction or opposition strength testing? Record in Column 5 of the Symptoms and Signs Table.

- Noted as present
- Noted as absent
- Unclear / Missing

10.08.V Loss of Sensibility, Digits 1-3: Did the medical record for this visit document loss of sensibility on physical examination in any one of digits 1 through 3? Record in Column 6 of the Symptoms and Signs Table.

- Noted as present
- Noted as absent
- Unclear / Missing
Summary Scores for 10.04.V through 10.08.V

In the bottom row of The Symptoms and Signs Table, generate a “Summary Score” for each of the variables 10.04.V through 10.08.V by determining the most pronounced findings for each variable. For example, if some visits documented classic/probable CTS symptoms and others possible CTS symptoms, the Summary Score for 10.04.V would be “classic/probable.” If data are missing for a variable across all visits, assume the least pronounced findings for the Summary Score. For example, if the presence or absence of thenar atrophy is never documented, assume that it was absent. If the list of visits in The Symptoms and Signs Table covers more than one page, generate one Summary Score for ALL of the visits. Do not generate a different Summary Score for each page.

IMPORTANT: Use Summary Scores in the Symptoms and Signs Table to summarize the overall severity of the CTS and the overall probability that the symptoms represent CTS, according to the instructions below. Return to the Data Form, Section 10, to document this information.

10.09.V Severity Summary: This variable summarizes the severity of the CTS. Choose one. Record on the Data Form, Section 10.

☐ Severe CTS (both of the following)
  • Symptoms that reflect classic/probable CTS (10.04.V.Summary = 1)
  • Thenar atrophy (10.06.V.Summary = 1)

☐ Moderate CTS (all of the following)
  • Symptoms that reflect classic/probable or possible CTS (10.04.V.Summary = 1 or 2)
  • At least one of the following: constant symptoms (10.05.V.Summary = 1), thenar muscle weakness (10.07.V.Summary = 1), or loss of sensibility in digits 1, 2, or 3 (10.08.V.Summary = 1)
  • NO thenar atrophy (10.06.V.Summary = 2)

☐ Mild CTS (all of the following)
  • Symptoms that reflect classic/probable or possible CTS (10.04.V.Summary = 1 or 2)
  • Intermittent symptoms (10.05.V.Summary = 2)
  • No abnormalities on physical examination (10.06.V.Summary = 2, 10.07.V.Summary = 2 AND 10.08.V.Summary = 2)

☐ CTS Unlikely: Unable to assess severity because symptoms are unlikely to be CTS or UNCLEAR. (10.04.V.Summary = 3)
  ➔ If CTS is unlikely and the patient did not undergo surgery, there are no more measures, STOP SCORING
  ➔ If CTS is unlikely the patient did undergo carpal tunnel surgery, skip to Section 13
10.10.V Probability Summary: This variable summarizes the probability that the presentation (symptoms and signs) represents CTS. Choose one. Record on the Data Form, Section 10.

☐ High Probability Presentation:
  o For patients with MODERATE or SEVERE CTS, both of the following:
    1. Symptoms are classic/probable for CTS (10.04.V.Summary = 1)
    2. Thenar muscle weakness (10.07.V.Summary = 1) OR loss of sensibility in digits 1, 2, or 3 (10.08.V.Summary = 1)
  o For patients with MILD CTS:
    1. Symptoms are classic/probable for CTS (10.04.V.Summary = 1)

☐ NOT High Probability: High probability criteria not met

10.11.V to 10.13.V Prior Treatments and Tests

10.11.V Conservative Therapy Summary

This variable summarizes the response to non-surgical treatments. Referring to all CTS-related visits during the study period (if the patient had surgery, before surgery), determine whether an adequate attempt at conservative therapy failed to alleviate the patient’s symptoms. **Choose one overall response.** On the Data Form, Section 10, record both the overall response (in the Measure Eligibility column) and information about the care provided (in the Measure Component column, corresponding to “MC” items below).

☐ Failed attempt at conservative therapy: At least one of the following was attempted and failed to adequately relieve the patient’s symptoms.
  * MC.1 Activity: Activity modification for six or more weeks
  * MC.2 Splinting: Splinting for six or more weeks
  * MC.3 Steroid injection

☐ No failed attempt at conservative therapy: one of the following
  * MC.4 Success: One of the above treatments that was attempted adequately relieved symptoms
  * MC.5 No Attempt: None of these was attempted
  * MC.6 Unclear
10.12.V Electrodiagnosis Summary

This variable summarizes the results of all electrodiagnostic tests. **Choose one** response that best characterizes the results of all electrodiagnostic tests performed on the study hand (if the patient had carpal tunnel surgery, before surgery). Record on the Data Form, Section 10.

- **Positive:** One or more tests performed before surgery was reported as positive for CTS, or positive and severe CTS
- **Indeterminate:** None of the tests were positive and one or more results were reported as equivocal or indeterminate for CTS OR UNCLEAR
- **Negative:** All of the tests performed before surgery were reported as negative for CTS
- **No Test:** No electrodiagnostic test for CTS was performed at any time

10.13.V Duration Summary

This variable summarizes the duration of symptoms (if the patient had carpal tunnel surgery, before surgery). **Choose one response.** Record on the Data Form, Section 10.

- More than 12 months
- 3 to 12 months
- Less than 3 months or UNCLEAR
SECTION 11: COMPELLING INDICATIONS FOR CARPAL TUNNEL SURGERY

Record data on the Data Form.

11.01.M Indications for carpal tunnel surgery are not changed by diabetes

Additional Eligibility: Had the patient been diagnosed with diabetes mellitus before the end of the study period?

☐ YES → Eligible for this measure, continue
☐ NO (or UNCLEAR) → Not eligible, go to next measure

Adherence: At any time during the study period did a provider who treats musculoskeletal disorders document that carpal tunnel surgery should NOT be performed because the patient has diabetes?

☐ YES → No Pass, go to next measure [note reverse response options, yes is NO PASS]
☐ NO (or UNCLEAR) → Pass, go to next measure

As documented by question E10.1 in Section 10, patients are not eligible for the subsequent measures in this section if they had carpal tunnel surgery before the study period or it is unclear whether they underwent carpal tunnel surgery (10.01.V = 3 or 4).

11.02.M Prompt surgery in wrist injury

Additional Eligibility: Did the patient have CTS symptoms that began after a severe wrist injury and that worsened after the closed reduction of a fracture or after immobilization of the wrist?

☐ YES → Eligible for this measure, continue
☐ NO or UNCLEAR or MISSING RECORDS → Not eligible, go to next measure

Adherence: Did the patient undergo carpal tunnel surgery within 48 hours of the fracture reduction or wrist immobilization, or does the medical record indicate that carpal tunnel surgery was offered within 48 hours and the patient declined?

☐ YES → Pass, STOP SCORING (no more relevant measures)
☐ NO → No pass, STOP SCORING (no more relevant measures)

For the remaining measures in this section, score using responses to 10.09.V through 10.13.V documented on the Data Form (i.e., Severity Summary, Probability Summary, Conservative Therapy Summary, Electrodiagnosis Summary, and Duration Summary)
11.03.M Compelling indications for surgery when CTS is MILD

Additional eligibility: Were ALL FOUR of the following criteria met?

☐ **Severity Summary:** The CTS was MILD (10.09.V = 3)
☐ **Probability Summary:** The presentation was “high probability” (10.10.V = 1)
☐ **Conservative Therapy Summary:** An attempt at conservative therapy failed (10.11.V = 1)
☐ **Electrodiagnosis Summary:** An electrodiagnostic test was positive for CTS (10.12.V = 1)

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**Summarize Eligibility**

☐ YES, ALL FOUR → **Eligible for this measure, continue**
☐ NO, FEWER THAN FOUR or UNCLEAR → **Not eligible, go to next measure (if CTS is MILD, skip to Section 12)**

Adherence: Did the patient undergo carpal tunnel surgery (Milestone 7, and 10.01.E = 1), or was carpal tunnel surgery offered and the patient declined?

☐ YES → **Pass and skip to Section 13**
☐ NO → **No Pass and STOP SCORING (no more relevant measures)**

11.04.M Compelling indications for surgery when CTS is MODERATE, part I

Additional eligibility: Were ALL FIVE of the following criteria met?

☐ **Severity Summary:** The CTS was MODERATE (10.09.V = 2)
☐ **Probability Summary:** The presentation was “high probability” (10.10.V = 1)
☐ **Conservative Therapy Summary:** An attempt at conservative therapy failed (10.11.V = 1)
☐ **Electrodiagnosis Summary:** An electrodiagnostic test was positive for CTS (10.12.V = 1)
☐ **Duration Summary:** The duration of symptoms was < 12 months (10.13.V = 2 or 3)

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**Summarize Eligibility**

☐ YES, ALL FIVE → **Eligible for this measure, continue**
☐ NO, FEWER THAN FOUR or UNCLEAR → **Not eligible, go to next measure**

Adherence: Did the patient undergo carpal tunnel surgery (Milestone 7, and 10.01.E = 1), or was carpal tunnel surgery offered and the patient declined?

☐ YES → **Pass and skip to Section 13**
☐ NO → **No Pass and STOP SCORING (no more relevant measures)**
11.05.M Compelling indications for surgery when CTS is MODERATE, part II

Additional eligibility: Were ALL FOUR of the following criteria met?

☐ **Severity Summary:** The CTS was MODERATE (10.09.V = 2)

☐ **Either or both of the following:**
  
  ☐ **Probability Summary:** The presentation was “high probability” (10.10.V = 1) **AND/OR**
  
  ☐ **Conservative Therapy Summary:** An attempt at conservative therapy failed (10.11.V = 1)

☐ **Electrodiagnosis Summary:** An electrodiagnostic test was positive for CTS (10.12.V = 1)

☐ **Duration Summary:** The duration of symptoms was > 12 months (10.13.V = 1)

--------------Summarize Eligibility-----------------

☐ YES, ALL FOUR → **Eligible for this measure, continue**

☐ NO, FEWER THAN FOUR or UNCLEAR → **Not eligible, go to next measure (if CTS is MODERATE, skip to Section 12)**

**Adherence:** Did the patient undergo carpal tunnel surgery (Milestone 7, and 10.01.E = 1), or was carpal tunnel surgery offered and the patient declined?

☐ YES → **Pass and skip to Section 13**

☐ NO → **No Pass and STOP SCORING (no more relevant measures)**

11.06.M Compelling indications for surgery when CTS is SEVERE, part I

Additional eligibility: Were ALL THREE of the following criteria met?

☐ **Severity Summary:** The CTS was SEVERE (10.09.V = 1)

☐ **Probability Summary:** The presentation was “high probability” (10.10.V = 1)

☐ **Electrodiagnosis Summary:** An electrodiagnostic test was positive for CTS (10.12.V = 1)

--------------Summarize Eligibility-----------------

☐ YES, ALL THREE → **Eligible for this measure, continue**

☐ NO, FEWER THAN THREE or UNCLEAR → **Not eligible, go to next measure**

**Adherence:** Did the patient undergo carpal tunnel surgery (Milestone 7, and 10.01.E = 1), or was carpal tunnel surgery offered and the patient declined?

☐ YES → **Pass and skip to Section 13**

☐ NO → **No Pass and STOP SCORING (no more relevant measures)**
11.07.M Compelling indications for surgery when CTS is SEVERE, part II

Additional eligibility: Were ALL FIVE of the following criteria met?

- **Severity Summary:** The CTS was SEVERE (10.09.V = 1)
- **Probability Summary:** The presentation was “high probability” (10.10.V = 1)
- **Conservative Therapy Summary:** An attempt at conservative therapy failed (10.11.V = 1)
- **Electrodiagnosis Summary:** An electrodiagnostic test has not been performed, or produced an indeterminate result (10.12.V = 2 or 4)
- **Duration Summary:** The duration of symptoms was < 3 months (10.13.V = 3)

--- Summarize Eligibility ---

- YES, ALL FIVE -> Eligible for this measure, continue
- NO, FEWER THAN FIVE or UNCLEAR -> Not eligible, go to next measure

Adherence: Did the patient undergo carpal tunnel surgery (Milestone 7, and 10.01.E = 1), or was carpal tunnel surgery offered and the patient declined?

- YES -> Pass and skip to Section 13
- NO -> No Pass and STOP SCORING (no more relevant measures)

11.08.M Compelling indications for surgery when CTS is SEVERE, part III

Additional eligibility: Were ALL FIVE of the following criteria met?

- **Severity Summary:** The CTS was SEVERE (10.09.V = 1)
- **Probability Summary:** The presentation was “high probability” (10.10.V = 1)
- **Conservative Therapy Summary:** An attempt at conservative therapy failed (10.11.V = 1)
- **Electrodiagnosis Summary:** An electrodiagnostic test has not been performed, or produced an indeterminate result (10.12.V = 2 or 4)
- **Duration Summary:** The duration of symptoms was > 12 months (10.13.V = 1)

--- Summarize Eligibility ---

- YES, ALL FIVE -> Eligible for this measure, continue
- NO, FEWER THAN FIVE or UNCLEAR -> Not eligible, go to Section 12

Adherence: Did the patient undergo carpal tunnel surgery (Milestone 7, and 10.01.E = 1), or was carpal tunnel surgery offered and the patient declined?

- YES -> Pass and skip to Section 13
- NO -> No Pass and STOP SCORING (no more relevant measures)
SECTION 12: COMPELLING CONTRA-INDICATIONS TO CARPAL TUNNEL SURGERY

Record data on the Data Form.

Patients are eligible for the measures in this section if they were diagnosed with CTS, whether or not they underwent carpal tunnel surgery during the study period.

12.01.M Avoidance of carpal tunnel surgery during pregnancy

Additional Eligibility: Did the patient have CTS during a pregnancy during the designated study period?

☐ YES ➔ Eligible for this measure, continue

☐ NO or UNCLEAR or MISSING RECORDS ➔ Not eligible, go to next measure

Adherence, Part 1: Did the patient undergo carpal tunnel surgery (Milestone 7, and 10.01.E = 1) during this pregnancy and during the study period?

☐ YES ➔ Continue

☐ NO or UNCLEAR ➔ Pass, go to next measure

Adherence, Part 2: Did the patient have the following? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

☐ MC.1 Pain or Severe Impairment: Intolerable pain OR severe and progressive nerve impairment

☐ MC.2 Splinting: Failed attempt at splinting

☐ MC.3 Steroid Injection: Failed attempt at steroid injection

-------------Summarize Adherence-------------

☐ ALL THREE ➔ Pass, skip to Section 13

☐ NONE to TWO ➔ No Pass, skip to Section 13

For the remaining measures in this section, score using responses to 10.08.V through 10.13.V as documented on the Data Form.

If the CTS is SEVERE, there are no relevant measures in this section; skip to Section 13.
12.02.M Compelling CONTRA-indications for surgery when CTS is MILD, part I

**Eligibility:** Were ALL THREE of the following criteria met?

- **Severity Summary:** The CTS was MILD (10.09.V = 3)
- **Either or both of the following:**
  - **Probability Summary:** The presentation was NOT “high probability” (10.10.V = 2) AND/OR
  - **Conservative Therapy Summary:** There was NO failed attempt at conservative therapy (10.11.V = 2)
- **Electrodiagnosis summary:** An electrodiagnostic test has not been performed, or was negative or indeterminate for CTS (10.12.V = 2, 3, or 4)

-------------**Summarize Eligibility**-------------

- YES, ALL THREE → **Eligible for this measure, continue**
- NO, FEWER THAN THREE or UNCLEAR → **Not eligible, go to next measure**

**Adherence:** Did the patient undergo carpal tunnel surgery during the study period? 10.01.E documents this; there is no need to collect the data again here.

- YES (10.01.E = 1) → **No Pass and skip to Section 13** [note here yes is NO PASS]
- NO (10.01.E = 2) → **Pass, no more measures, STOP SCORING**
12.03.M Compelling CONTRA-indications for surgery when CTS is MILD, part II

Eligibility: Were ALL FIVE of the following criteria met?

- **Severity Summary:** The CTS was MILD (10.09.V = 3)
- **Probability Summary:** The presentation is NOT “high probability” (10.10.V = 2)
- **Conservative Therapy Summary:** There was NO failed attempt at conservative therapy (10.11.V = 2)
- **Electrodiagnosis Summary:** An electrodiagnostic test was positive for CTS (10.12.V = 1)
- **Duration Summary:** The duration of symptoms was ≤ 12 months (10.13.V = 2 or 3)

-------------Summarize Eligibility-------------

- **YES, ALL FIVE** → **Eligible for this measure, continue**
- **NO, FEWER THAN FIVE or UNCLEAR** → **Not eligible, go to next measure**

Adherence: Did the patient undergo carpal tunnel surgery during the study period? 10.01.E documents this; there is no need to collect the data again here.

- **YES (10.01.E = 1)** → **No Pass and skip to Section 13** [note here yes is NO PASS]
- **NO (10.01.E = 2)** → **Pass, no more measures, STOP SCORING**
12.04.M Compelling CONTRA-indications for surgery when CTS is MODERATE, part I

Eligibility: Were ALL FOUR of the following criteria met?

- **Severity Summary:** The CTS was MODERATE (10.09.V = 2)
- **Either or both of the following:**
  - **Probability Summary:** The presentation is NOT “high probability” (10.10.V = 2) **AND/OR**
  - **Conservative Therapy Summary:** There was NO failed attempt at conservative therapy (10.11.V = 2)
- **Electrodiagnosis Summary:** An electrodiagnostic test has not been performed, or was negative or indeterminate for CTS (10.12.V = 2, 3, or 4)
- **Duration Summary:** The duration of symptoms was < 3 months (10.13.V = 3)

-----------Summarize Eligibility-----------

- YES, ALL FOUR → Eligible for this measure, continue
- NO, FEWER THAN FOUR or UNCLEAR → Not eligible, go to next measure

Adherence: Did the patient undergo carpal tunnel surgery during the study period? 10.01.E documents this; there is no need to collect the data again here.

- YES (10.01.E = 1) → No Pass and skip to Section 13 [note here yes is NO PASS]
- NO (10.01.E = 2) → Pass, no more measures, STOP SCORING
12.05.M Compelling CONTRA-indications for surgery when CTS is MODERATE, part II

Eligibility: Were ALL FIVE of the following criteria met?

- **Severity Summary**: The CTS was MODERATE (10.09.V = 2)
- **Probability Summary**: The presentation is NOT “high probability” (10.10.V = 2)
- **Conservative Therapy Summary**: There was NO failed attempt at conservative therapy (10.11.V = 2)
- **Electrodiagnosis Summary**: An electrodiagnostic test was positive for CTS (10.12.V = 1)
- **Duration Summary**: The duration of symptoms was < 3 months (10.13.V = 3)

-------------------Summarize Eligibility-------------------

- YES, ALL FIVE → Eligible for this measure, continue
- NO, FEWER THAN FIVE or UNCLEAR → Not eligible, go to next measure

Adherence: Did the patient undergo carpal tunnel surgery during the study period? 10.01.E documents this; there is no need to collect the data again here.

- YES (10.01.E = 1) → No Pass and skip to Section 13 [note here yes is NO PASS]
- NO (10.01.E = 2) → Pass, no more measures, STOP SCORING
12.06.M Compelling CONTRA-indications for surgery when CTS is MODERATE, part III

**Eligibility:** Were ALL FOUR of the following criteria met?

- **Severity Summary:** The CTS was MODERATE (10.09.V = 2)
- **Either or both of the following:**
  - **Probability Summary:** The presentation is NOT “high probability” (10.10.V = 2) AND/OR
  - **Conservative Therapy Summary:** There was NO failed attempt at conservative therapy (10.11.V = 2)
- **Electrodiagnosis Summary:** An electrodiagnostic test was negative for CTS (10.12.V = 3)
- **Duration Summary:** The duration of symptoms was > 3 months (10.13.V = 1 or 2)

---------- Summarize Eligibility ----------

- YES, ALL FOUR \(\Rightarrow\) Eligible for this measure, continue
- NO, FEWER THAN FOUR or UNCLEAR \(\Rightarrow\) Not eligible, go to next measure

**Adherence:** Did the patient undergo carpal tunnel surgery during the study period? 10.01.E documents this; there is no need to collect the data again here.

- YES (10.01.E = 1) \(\Rightarrow\) No Pass and skip to Section 13 [note yes is NO PASS]
- NO (10.01.E = 2) \(\Rightarrow\) Pass, no more measures, STOP SCORING

12.07.M Compelling CONTRA-indications for surgery when CTS is MODERATE, part IV

**Eligibility:** Were ALL FOUR of the following criteria met?

- **Severity Summary:** The CTS was MODERATE (10.09.V = 2)
- **Conservative Therapy Summary:** There was NO failed attempt at conservative therapy (10.11.V = 2)
- **Electrodiagnosis Summary:** An electrodiagnostic test has not been performed, or was indeterminate for CTS (10.12.V = 2 or 4)
- **Duration Summary:** The duration of symptoms was \(\geq\) 3 months (10.13.V = 1 or 2)

---------- Summarize Eligibility ----------

- YES, ALL FOUR \(\Rightarrow\) Eligible for this measure, continue
- NO, FEWER THAN FOUR or UNCLEAR \(\Rightarrow\) Not eligible, skip to Section 13
**Adherence:** Did the patient undergo carpal tunnel surgery during the study period? 10.01.E documents this; there is no need to collect the data again here.

- YES (10.01.E = 1) → **No Pass and skip to Section 13** [note here yes is NO PASS]
- NO (10.01.E = 2) → **Pass, no more measures, STOP SCORING**
SECTION 13: PERIOPERATIVE CARE

Record data on the Data Form.

Section Eligibility

Eligible if the medical record indicates that this patient underwent carpal tunnel surgery on the study hand for the first time during the study period (Milestone 7, 10.01.E = 1) and the medical record is complete (10.02.E = 1).

13.01.M Elements of CTS-specific surgical evaluation

Can one or more visits between the patient and the operating surgeon or member of the operating team be identified during the 18 months prior to carpal tunnel surgery AND does the medical record for these visits specifically note the following for the study hand? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

☐ MC.1 History: Presence or absence of parathesias or pain in digits 1, 2, or 3
☐ MC.2 Examination: Presence or absence of thenar muscle weakness or thenar atrophy
☐ MC.3 Electrodiagnostic Testing (EDX): Discussion of whether such testing was performed and any results

Summarize Adherence

☐ ALL THREE → Pass, go to next measure
☐ NONE to TWO (or UNCLEAR) → No Pass, go to next measure

13.02.M Documentation of prior treatments for CTS

Can one or more visits between the patient and the operating surgeon or member of the operating team be identified during the 18 months prior to carpal tunnel surgery AND does the medical record for at least one of these visits specifically note the presence or absence of history of previous treatments for CTS?

☐ YES → Pass, go to next measure
☐ NO or UNCLEAR → No Pass, go to next measure
13.03.M Preoperative evaluation of suspected cervical radiculopathy

Additional Eligibility: Did the medical record indicate that cervical radiculopathy was suspected (or diagnosed) in this patient during the 18 months before surgery?

☐ YES → Eligible for this measure, continue
☐ NO or UNCLEAR → Not eligible, go to next measure

Adherence: Was CTS surgery performed after the patient was evaluated with the following? Consider all that apply.

☐ Electrodiagnostic testing of nerves proximal to the carpal tunnel: A test noting the presence or absence of nerve abnormalities proximal to the median nerve, such as cervical radiculopathy
☐ Imaging tests of the cervical spine: Cervical spine X-rays, CT, or MRI
☐ Evaluation by specialist with expertise in neurological conditions: Referral to a neurology, spine surgeon, physical medicine physician, or other physician with expertise in neurological disorders

------------------------Summarize Adherence------------------------

☐ ONE OR MORE → Pass, go to next measure
☐ NONE (or UNCLEAR) → No Pass, go to next measure

13.04.M Preoperative electrodiagnostic testing for work associated CTS

Additional Eligibility: Did a provider who treats musculoskeletal disorders document that he or she believed that the patient’s CTS was associated with their occupation during the 18 months before surgery?

☐ YES → Eligible for this measure, continue
☐ NO or UNCLEAR or MISSING RECORDS → Not eligible, go to next section

Adherence: Did the patient undergo electrodiagnostic testing on the median nerve in the study hand during the 18 months before surgery?

☐ YES → Pass, go to next measure
☐ NO → No Pass, go to next measure

13.05.M Recent preoperative visit with surgical team

Was there documentation of a visit with the operating surgeon (or a member of the operating team) within 30 days prior to the date of surgery on this hand?

☐ YES → Pass, go to next measure
☐ NO or UNCLEAR → No Pass, go to next measure
Elements of General Preoperative History

During the last month before surgery, did any provider document a detailed medical history (or update a prior detailed history) that included the presence of, absence of, or changes to each of the following:

13.06.M Medical co-morbidities?

☐ YES → Pass, go to next measure
☐ NO → No Pass, go to next measure

13.07.M Past surgeries?

☐ YES → Pass, go to next measure
☐ NO → No Pass, go to next measure

13.08.M Current medications?

☐ YES → Pass, go to next measure
☐ NO → No Pass, go to next measure

13.09.M “Allergies” (medication intolerances)?

☐ YES → Pass, go to next measure
☐ NO → No Pass, go to next measure

13.10.M Review of systems including at least two organ systems?

☐ YES → Pass, go to next measure
☐ NO → No Pass, go to next measure

13.11.M Consent for open procedure in planned endoscopic release

Additional Eligibility: Was the patient consented for an endoscopic carpal tunnel surgery on the study hand?

☐ YES → Eligible for this measure, continue
☐ NO → Not eligible, go to next measure

Adherence: Did the consent include a consent provision for possible open procedure?

☐ YES → Pass, go to next measure
☐ NO → No Pass, go to next measure
MEASURES PERTAINING TO INTRAOPERATIVE CARE ARE SCORED ON A DIFFERENT WORKSHEET AND ARE INTENDED TO BE SCORED BY A MEDICAL DOCTOR WHO OPERATES ON THE HAND.

13.12.M Requirement for a postoperative visit

Additional Eligibility: Does the medical record indicate there was at least two weeks following carpal tunnel surgery (after Milestone 7) within the study period?
- YES → Eligible for this measure, continue
- NO or UNCLEAR or MISSING RECORDS → Not eligible, go to next measure

Adherence: Within the first two weeks after carpal tunnel surgery, was the patient seen by a medical provider who treats musculoskeletal disorders or physical/occupational/hand therapist and did the notes from this visit indicate that the study hand was evaluated?
- YES → Pass, go to next measure
- NO → No Pass, go to next measure

13.13.M Elements of postoperative visit with surgical team

Additional Eligibility: Did the patient have one or more postoperative visits with the operating surgeon or member of the operating team within three months of carpal tunnel surgery?
- YES → Eligible for this measure, continue
- NO or MISSING RECORDS → Not eligible, go to next measure

Adherence: Did the surgeon or member of the operating team evaluate the current (i.e., postoperative) carpal-tunnel-related symptoms at the first such visit?
- YES → Pass, go to next measure
- NO → No Pass, go to next measure


Additional Eligibility: Did the patient have one or more postoperative visits to a provider who treats musculoskeletal disorders between two weeks and three months after surgery AND did the note for one or more of such visits document that the patient had finger stiffness?
- YES → Eligible for this measure, continue
- NO or MISSING RECORDS → Not eligible, go to next measure

Adherence: Did the patient have a second visit, specifically with the surgeon or a member of the operative team, within two weeks of the postoperative visit at which stiffness was first documented?
☐ YES → Pass, go to next measure
☐ NO → No Pass, go to next measure
13.15.M Management of postoperative finger stiffness

Additional Eligibility: Does the medical record indicate ALL of the following?

- The patient had one or more CTS-related visits from six weeks through six months after carpal tunnel surgery (Milestone 7)
- At any of the CTS-related visits from six weeks through six months after carpal tunnel surgery, the medical record documented that the patient had finger stiffness
- There was at least one month within the study period after the documented finger stiffness.

----------------------Summarize Eligibility----------------------

- YES to ALL → Eligible for measures, continue
- NO or UNCLEAR or MISSING RECORDS → Not eligible, go to next measure

Adherence: Does the medical record document that the patient was referred for physical/occupational/hand therapy within one month of the visit at which finger stiffness was first documented?

- YES → Pass, go to next measure
- NO → No Pass, go to next measure

13.16.M Patients who do not improve after surgery require evaluation

Additional Eligibility: Does the medical record indicate ALL of the following:

- At least three months and no more than nine months after carpal tunnel surgery (Milestone 7), a provider who treats musculoskeletal disorders documented that the patient did NOT experience a substantial improvement in their CTS-related symptoms after surgery
- After the first visit occurring between three and nine months after surgery at which lack of improvement was documented, there were at least eight weeks remaining within the study period

----------------------Summarize Eligibility----------------------

- YES to ALL → Eligible for this measure, continue
- NO or MISSING RECORDS → Not eligible, go to next measure

Adherence: After the first visit occurring between three and nine months after surgery at which lack of improvement was documented, was the patient personally re-examined by the operating surgeon within eight weeks?

- YES → Pass, go to next measure
- NO → No Pass, go to next measure
13.17.M Management of lack of improvement after surgery

Additional Eligibility: Does the medical record indicate ALL of the following:

- At least three months and no more than nine months after carpal tunnel surgery (Milestone 7), a provider who treats musculoskeletal disorders documented that the patient did NOT experience a substantial improvement in their CTS-related symptoms after surgery.
- There was at least one year within the study period after carpal tunnel surgery.

--- Summarize Eligibility ---

- YES to ALL → Eligible for this measure, continue
- NO or MISSING RECORDS → Not eligible, go to next measure

Adherence: After the first visit occurring between three and nine months after surgery at which lack of improvement was documented, did the patient undergo or did the medical record document the patient’s refusal of the following evaluations within one year after surgery? Select all that apply. (“MC” refers to Measure Component; document this information on the Data Form).

- **MC.1 Testing:** Diagnostic test of the study hand
- **MC.2 Referral:** Evaluation by a different specialist who treats musculoskeletal disorders
- **MC.3 Refusal:** Patient’s refusal of a diagnostic test or specialist evaluation or referral

--- Summarize Adherence ---

- AT LEAST ONE → Pass
- NONE → No Pass

**END, STOP SCORING**