



CLINICAL GUIDELINES

# CMM-604: Posterior Cervical Fusion Guidelines

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**EviCore**  
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EviCore healthcare Clinical Decision Support Tool Diagnostic Strategies: This tool addresses common symptoms and symptom complexes. Requests for individuals with atypical symptoms or clinical presentations that are not specifically addressed will require physician review. Consultation with the referring physician, specialist and/or individual's Primary Care Physician (PCP) may provide additional insight.

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**CMM-604: Posterior Cervical Fusion****CMM-604.1: General Guidelines****CMM-604.2: Osteotomy****CMM-604.3: Initial Primary Posterior Cervical Fusion for Conditions other than Pseudoarthrosis****CMM-604.4: Initial Primary Posterior Cervical Fusion with Posterior Cervical Decompression for Conditions other than Pseudoarthrosis****CMM-604.5: Posterior Cervical Fusion (Initial or Repeat) for Symptomatic Pseudoarthrosis****CMM-604.6: Repeat Posterior Cervical Fusion at the Same Level for Conditions other than Pseudoarthrosis****CMM-604.7: Posterior Cervical Fusion (with or without Decompression) Following Failed Cervical Disc Arthroplasty Surgery****CMM-604.8: Non-Indications****CMM-604: Codes****CMM-604: Evidence Discussion****CMM-604: References**

## **CMM-604.1: General Guidelines**

### **Application of Guideline**

- The determination of medical necessity for the performance of posterior cervical fusion is always made on a case-by-case basis.
- For additional timing and documentation requirements, see **CMM-600.1: Prior Authorization Requirements**.

### **Urgent/Emergent Indications/Conditions**

- The presence of urgent/emergent indications/conditions warrants definitive surgical treatment. **Imaging findings noted in the applicable procedure section(s) are required.**
  - ◆ The following criteria are **NOT** required for confirmed urgent/emergent conditions:
    - Plain X-rays of the cervical spine
    - Provider-directed non-surgical management
    - Proof of smoking cessation
    - Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)
    - Timeframe for repeat procedure
- Urgent/emergent conditions for posterior cervical fusion include **ANY** of the following:
  - ◆ Acute/unstable traumatic spinal fractures or dislocations with neural compression
  - ◆ Central cord syndrome
  - ◆ Myelopathy or Cord signal changes on MRI due to cord compression
  - ◆ Documentation of progressive neurological deficit on two separate physical exams
  - ◆ **ANY** of the following due to a neurocompressive pathology
    - Motor weakness of grade 3/5 or less of specified muscle(s)
    - Rapidly progressive symptoms of motor loss
    - Bowel incontinence
    - Bladder incontinence/retention
  - ◆ Occipitocervical and/or Atlantoaxial (C1-C2) instability (non-traumatic) and/or spinal cord compression due to **ANY** of the following:
    - Rheumatoid arthritis
    - Congenital abnormality of occipitocervical/C1-C2 vertebrae
    - Os odontoideum
  - ◆ Epidural hematoma
  - ◆ Infection (e.g., discitis, epidural abscess, osteomyelitis)
  - ◆ Primary or metastatic neoplastic disease causing pathologic fracture, cord compression, or instability
  - ◆ A condition otherwise meeting criteria listed in the applicable procedure section(s) with documentation of severe debilitating pain and/or dysfunction to

the point of being incapacitate Plain X-rays show instability and include **EITHER** of the following findings:

- Subluxation or translation of more than 3.5 mm on static lateral or dynamic flexion/extension views
- Sagittal plane angulation of more than 11 degrees between adjacent spinal segments on static or dynamic flexion/extension lateral plain X-rays
- ◆ Vascular malformations (e.g., AVM)

## **CMM-604.2: Osteotomy**

### **Posterior Column Osteotomy (PCO)**

Posterior cervical column osteotomy (PCO) (i.e., Smith-Peterson osteotomy [SPO] or Ponte osteotomy) is considered **medically necessary** (in addition to fusion) when **ALL** of the following criteria have been met:

- Performed for correction of non-fixed cervical kyphotic deformity requiring 5° to 10° of correction (SPO) per spinal segment
- Correction of cervical kyphotic deformity cannot be attained by cervical fusion (with or without posterior cervical decompression) alone
- **ALL** of the criteria for cervical fusion (with or without posterior cervical decompression) have been met per the applicable procedure-specific section(s) below:
  - ◆ **CMM-604.3: Initial Primary Posterior Cervical Fusion for Conditions other than Pseudoarthrosis**
  - ◆ **CMM-604.4: Initial Posterior Cervical Fusion with Posterior Cervical Decompression for Conditions other than Pseudoarthrosis**
  - ◆ **CMM-604.5: Posterior Cervical Fusion (Initial or Repeat) for Symptomatic Pseudoarthrosis**
  - ◆ **CMM-604.6: Repeat Posterior Cervical Fusion (with or without a Decompression) at the Same Level for Conditions other than Pseudoarthrosis**
  - ◆ **CMM-604.7: Posterior Cervical Fusion (with or without Decompression) Following Failed Cervical Disc Arthroplasty**

### **Three-Column Osteotomy or Vertebral Column Resection**

Cervical three-column osteotomy (i.e., pedicle subtraction osteotomy [PSO] or vertebral column resection [VCR]) is considered **medically necessary** (in addition to fusion) when **ALL** of the following criteria have been met:

- Performed for correction of fixed cervical kyphotic deformity
- Correction of cervical kyphotic deformity cannot be attained by posterior cervical fusion (with or without posterior cervical decompression) alone

- **ALL** of the criteria for posterior cervical fusion (with or without posterior cervical decompression) have been met per the applicable procedure-specific section(s) below:
  - ◆ **CMM-604.3: Initial Primary Posterior Cervical Fusion for Conditions other than Pseudoarthrosis**
  - ◆ **CMM-604.4: Initial Posterior Cervical Fusion with Posterior Cervical Decompression for Conditions other than Pseudoarthrosis**
  - ◆ **CMM-604.5: Posterior Cervical Fusion (Initial or Repeat) for Symptomatic Pseudoarthrosis**
  - ◆ **CMM-604.6: Repeat Posterior Cervical Fusion (with or without a Decompression) at the Same Level for Conditions other than Pseudoarthrosis**
  - ◆ **CMM-604.7: Posterior Cervical Fusion (with or without Decompression) Following Failed Cervical Disc Arthroplasty**

### **CMM-604.3: Initial Primary Posterior Cervical Fusion for Conditions other than Pseudoarthrosis**

Initial posterior cervical fusion is considered **medically necessary** for **ANY** of the following conditions when **ALL** of the associated criteria have been met:

#### **Symptomatic Cervical Spondylosis with Instability**

**EITHER** of the following clinical scenarios:

- Plain X-rays show instability and include **EITHER** of the following findings (meeting urgent/emergent criteria):
  - ◆ Subluxation or translation of more than 3.5 mm on static lateral views
  - ◆ Sagittal plane angulation of more than 11 degrees between adjacent spinal segments on static or dynamic flexion/extension lateral plain X-rays
- **ALL** of the following criteria have been met:
  - ◆ Plain X-rays of the cervical spine including flexion/extension lateral views have been performed
  - ◆ Imaging study shows corresponding pathologic anatomy
  - ◆ Individual is unresponsive to a reasonable and medically appropriate course of conservative treatment (e.g., rest, medication, cervical collar)
  - ◆ Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)
  - ◆ Documentation of nicotine-free status with **EITHER** of the following:
    - Individual is a never-smoker
    - Individual has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least six (6) weeks prior to planned surgery as evidenced by blood cotinine lab results of  $\leq 10$  ng/mL

## **Clinical Conditions with an Increased Incidence of Congenital and/or Acquired Cervical Spinal Instability**

**EITHER** of the following clinical scenarios:

- Plain X-rays show instability and include **EITHER** of the following findings (meeting urgent/emergent criteria):
  - ◆ Subluxation or translation of more than 3.5 mm on static lateral views
  - ◆ Sagittal plane angulation of more than 11 degrees between adjacent spinal segments on static or dynamic flexion/extension lateral plain X-rays
- **ALL** of the following criteria have been met:
  - ◆ Documentation of rheumatoid arthritis or a clinical condition with an increased incidence of congenital and/or acquired cervical spinal instability (e.g., Down syndrome, mucopolysaccharidoses, spondyloepiphyseal dysplasia, pseudoachondroplasia, etc.)
  - ◆ Imaging evidence of subluxation and/or spinal cord compression
  - ◆ Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)
  - ◆ Documentation of nicotine-free status with **EITHER** of the following:
    - Individual is a never-smoker
    - Individual has refrained from smoking, use of tobacco products, and/or nicotine replacement therapy for at least six (6) weeks prior to planned surgery as evidenced by blood cotinine lab results of  $\leq 10$  ng/mL

### **CMM-604.4: Initial Primary Posterior Cervical Fusion with Posterior Cervical Decompression for Conditions other than Pseudoarthrosis**

Initial posterior cervical fusion with posterior cervical decompression (laminectomy/hemilaminectomy/laminoplasty) is considered **medically necessary** for **ANY** of the following conditions when **ALL** of the associated criteria have been met:

#### **Radiculopathy**

- The individual is a candidate for an initial posterior cervical decompression per **CMM-603.2: Initial Primary Posterior Cervical Decompression (Laminectomy/Hemilaminectomy/Laminoplasty)**
- Plain X-rays of the cervical spine including flexion/extension lateral views have been performed
- Documentation of nicotine-free status with **EITHER** of the following:
  - ◆ Individual is a never-smoker
  - ◆ Individual has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least six (6) weeks prior to planned surgery as evidenced by blood cotinine lab results of  $\leq 10$  ng/mL

## **Myelopathy**

- The individual is a candidate for an initial posterior cervical decompression per **CMM-603.2: Initial Primary Posterior Cervical Decompression (Laminectomy/Hemilaminectomy/Laminoplasty)**
- Imaging must show neutral or lordotic alignment (i.e., without kyphosis)

## **Concurrent Stabilization Procedure**

- Posterior cervical fusion is performed concurrently for **EITHER** of the following:
  - ◆ As a concurrent stabilization procedure with corpectomy, laminectomy, or other procedure at the cervicothoracic junction (i.e., C7 and T1)
  - ◆ As a concurrent stabilization procedure with a laminectomy, especially at C2
- Plain X-rays of the cervical spine including flexion/extension lateral views have been performed
- Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)
- Documentation of nicotine-free status with **EITHER** of the following:
  - ◆ Individual is a never-smoker
  - ◆ Individual has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least six (6) weeks prior to planned surgery as evidenced by blood cotinine lab results of  $\leq 10$  ng/mL

## **Clinical Conditions with an Increased Incidence of Congenital and/or Acquired Cervical Spinal Instability**

**EITHER** of the following clinical scenarios:

- Plain X-rays show instability and include **EITHER** of the following findings (meeting urgent/emergent criteria):
  - ◆ Subluxation or translation of more than 3.5 mm on static lateral views
  - ◆ Sagittal plane angulation of more than 11 degrees between adjacent spinal segments on static or dynamic flexion/extension lateral plain X-rays
- **ALL** of the following criteria have been met:
  - ◆ Documentation of rheumatoid arthritis or clinical conditions with an increased incidence of congenital and/or acquired cervical spinal instability (e.g., Down syndrome, mucopolysaccharidoses, spondyloepiphyseal dysplasia, pseudoachondroplasia, etc.)
  - ◆ Imaging includes **BOTH** of the following:
    - Imaging evidence of subluxation and/or spinal cord compression
    - Plain X-rays of the cervical spine including flexion/extension lateral views have been performed
  - ◆ Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)

- ◆ Documentation of nicotine-free status with **EITHER** of the following:
  - Individual is a never-smoker
  - Individual has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least six (6) weeks prior to planned surgery as evidenced by blood cotinine lab results of  $\leq 10$  ng/mL

### **Symptomatic Cervical Instability or Spinal Cord/Root Compression Requiring Posterior Fusion**

**EITHER** of the following clinical scenarios:

- Plain X-rays show instability and include **EITHER** of the following findings (meeting urgent/emergent criteria):
  - ◆ Subluxation or translation of more than 3.5 mm on static lateral views
  - ◆ Sagittal plane angulation of more than 11 degrees between adjacent spinal segments on static or dynamic flexion/extension lateral plain X-rays
- **ALL** of the following criteria have been met:
  - ◆ Plain X-rays of the cervical spine including flexion/extension lateral views have been performed
  - ◆ Imaging study shows corresponding pathologic anatomy
  - ◆ Individual is unresponsive to a reasonable and medically appropriate course of conservative treatment (e.g., rest, medication, cervical collar)
  - ◆ Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)
  - ◆ Documentation of nicotine-free status with **EITHER** of the following:
    - Individual is a never-smoker
    - Individual has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least six (6) weeks prior to planned surgery as evidenced by blood cotinine lab results of  $\leq 10$  ng/mL

### **CMM-604.5: Posterior Cervical Fusion (Initial or Repeat) for Symptomatic Pseudoarthrosis**

A posterior cervical fusion (initial or repeat) is considered **medically necessary** for symptomatic pseudoarthrosis after a prior cervical fusion at the same level for **ANY** of the following conditions when **ALL** of the associated criteria have been met:

#### **Unremitting Neck Pain with Pseudoarthrosis**

- Greater than six (6) months since the prior cervical fusion surgery at the same level
- Significant level of pain on a daily basis defined as clinically significant functional impairment (e.g., inability to perform household chores, prolonged standing, etc.)
- Post-operative physical exam findings are concordant with the individual's symptoms
- Less than clinically meaningful improvement with six (6) months of non-surgical treatment with **BOTH** of the following (unless contraindicated):

- ◆ Prescription strength analgesics, steroids, gabapentinoids, and/or NSAIDs
- ◆ Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician
- Post-operative MRI/CT shows findings that are concordant with the individual's symptoms
- Post-operative imaging (performed at no less than six (6) months after the prior cervical fusion) shows pseudoarthrosis at the requested level(s)
- Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)
- Documentation of nicotine-free status with **EITHER** of the following:
  - ◆ Individual is a never-smoker
  - ◆ Individual has refrained from smoking, use of tobacco products, and/or nicotine replacement therapy for at least six (6) weeks prior to planned surgery as evidenced by blood cotinine lab results of  $\leq 10$  ng/mL

### Radiculopathy with Pseudoarthrosis

- Greater than six (6) months since the prior cervical fusion surgery at the same level
- Subjective symptoms include **BOTH** of the following:
  - ◆ Significant level of pain on a daily basis defined as clinically significant functional impairment (e.g., inability to perform household chores, prolonged standing, etc.)
  - ◆ Unremitting radicular pain to shoulder girdle and/or upper extremity resulting in disability
- Objective physical exam findings include **ANY** of the following:
  - ◆ Dermatomal sensory deficit
  - ◆ Motor deficit (e.g., biceps, triceps weakness)
  - ◆ Reflex changes
  - ◆ Shoulder abduction relief sign
  - ◆ Nerve root tension sign (e.g., Spurling's maneuver)
  - ◆ Unremitting radicular pain to shoulder girdle and/or upper extremity without concordant objective physical exam findings
- Less than clinically meaningful improvement with at least **TWO** of the following (unless contraindicated):
  - ◆ Prescription strength analgesics, steroids, gabapentinoids, and/or NSAIDs for six (6) weeks
  - ◆ Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician for six (6) weeks
  - ◆ Epidural steroid injection(s) or selective nerve root block(s) performed at the same level(s) as the requested surgery
- Post-operative imaging (performed at no less than six (6) months after the prior cervical fusion) shows pseudoarthrosis at the requested level(s)

- Post-operative MRI/CT shows neural structure compression at the requested level(s) that is concordant with the individual's symptoms **and** physical exam findings and that is caused by **ANY** of the following:
  - ◆ Herniated disc(s) (retained disc material or a recurrent disc herniation)
  - ◆ Synovial cyst or arachnoid cyst
  - ◆ Central/lateral/foraminal stenosis
  - ◆ Osteophytes
- Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)
- Documentation of nicotine-free status including **EITHER** of the following:
  - ◆ Individual is a never-smoker
  - ◆ Individual has refrained from smoking, use of smokeless tobacco products, or nicotine replacement therapy for at least six (6) weeks prior to planned surgery as evidenced by blood cotinine lab results of  $\leq 10$  ng/mL

### Myelopathy with Pseudoarthrosis

- Greater than six (6) months since the prior cervical fusion surgery at the same level
- Subjective symptoms include **ANY** of the following:
  - ◆ Upper/lower extremity weakness, numbness, or pain
  - ◆ Fine motor dysfunction (buttoning, handwriting, clumsiness of hands)
  - ◆ Gait disturbance
  - ◆ New-onset bowel or bladder dysfunction
  - ◆ Frequent falls
- Objective physical exam findings include **ANY** of the following:
  - ◆ Grip and release test
  - ◆ Ataxic gait
  - ◆ Hyperreflexia
  - ◆ Hoffmann sign
  - ◆ Babinski sign
  - ◆ Tandem walking test demonstrating ataxia
  - ◆ Inverted brachial radial reflex
  - ◆ Increased muscle tone or spasticity
  - ◆ Clonus
  - ◆ Myelopathic hand
- Post-operative imaging (performed at no less than six (6) months after the prior cervical fusion) shows pseudoarthrosis at the requested level(s)
- Post-operative MRI/CT shows findings that are concordant with the individual's symptoms **and** physical exam findings and that are caused by **EITHER** of the following:
  - ◆ Cervical spinal cord compression
  - ◆ Cervical spinal stenosis

### **CMM-604.6: Repeat Posterior Cervical Fusion at the Same Level for Conditions other than Pseudoarthrosis**

Repeat posterior cervical fusion (with or without posterior cervical decompression) at the same level is considered **medically necessary** for the following condition when the associated criteria has been met:

#### **Malposition or Failure of Implant/Instrumentation or Structural Bone Graft**

- Post-operative imaging shows evidence of malposition or failure of the implant/instrumentation or structural bone graft (e.g., migration, pedicle screw breakage, pedicle screw loosening, dislodged hooks, rod breakage, rod bending, rod loosening, loss of curve correction, decompensation, etc.)

### **CMM-604.7: Posterior Cervical Fusion (with or without Decompression) Following Failed Cervical Disc Arthroplasty Surgery**

Posterior cervical fusion (with or without posterior cervical decompression) following a failed cervical disc arthroplasty implant is considered **medically necessary** for **ANY** of the following conditions when **ALL** of the associated criteria have been met:

#### **Failed Cervical Disc Arthroplasty Implant**

- Post-operative imaging shows evidence of cervical disc arthroplasty implant malposition or failure (e.g., subsidence, loosening, infection, dislocation/subluxation, vertebral body fracture, dislodgement)

#### **Unremitting Neck Pain**

- Greater than six (6) months since the prior cervical disc arthroplasty at the same level
- Significant level of pain on a daily basis defined clinically significant functional impairment (e.g., inability to perform household chores, prolonged standing, etc.)
- Post-operative physical exam findings are concordant with the individuals symptoms
- Less than clinically meaningful improvement with **BOTH** of the following for at least six (6) weeks (unless contraindicated):
  - ◆ Prescription strength analgesics, steroids, gabapentinoids, and/or NSAIDs
  - ◆ Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician
- Post-operative MRI/CT shows findings that are concordant with the individual's symptoms
- Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)
- Documentation of nicotine-free status including **EITHER** of the following:
  - ◆ Individual is a never-smoker

- ◆ Individual has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least six (6) weeks prior to planned surgery as evidenced by blood cotinine lab results of  $\leq 10$  ng/mL

## **Radiculopathy**

- Greater than six (6) months since the prior cervical disc arthroplasty at the same level
- Subjective symptoms include **BOTH** of the following:
  - ◆ Significant level of pain on a daily basis defined as clinically significant functional impairment (e.g., inability to perform household chores, prolonged standing, etc.)
  - ◆ Unremitting radicular pain to shoulder girdle and/or upper extremity resulting in disability
- Objective physical exam findings include **ANY** of the following:
  - ◆ Dermatomal sensory deficit
  - ◆ Motor deficit (e.g., biceps, triceps weakness)
  - ◆ Reflex changes
  - ◆ Shoulder abduction relief sign
  - ◆ Nerve root tension sign (e.g., Spurling's maneuver)
  - ◆ Unremitting radicular pain to shoulder girdle and/or upper extremity without concordant objective physical exam findings
- Less than clinically meaningful improvement with at least **TWO** of the following (unless contraindicated):
  - ◆ Prescription strength analgesics, steroids, gabapentinoids, and/or NSAIDs for six (6) weeks
  - ◆ Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic, or allopathic physician for six (6) weeks
  - ◆ Epidural steroid injection(s) or selective nerve root block(s) performed at the same level(s) as the requested surgery
- Post-operative MRI/CT shows neural structure compression at the requested level(s) that is concordant with the individual's symptoms **and** physical exam findings and that is caused by **ANY** of the following:
  - ◆ Herniated disc(s) (retained disc material or a recurrent disc herniation)
  - ◆ Synovial cyst or arachnoid cyst
  - ◆ Central/lateral/foraminal stenosis
  - ◆ Osteophytes
- Absence of unmanaged significant mental and/or behavioral health disorders (e.g., major depressive disorder, chronic pain syndrome, secondary gain, opioid and alcohol use disorders)
- Documentation of nicotine-free status with **EITHER** of the following:
  - ◆ Individual is a never-smoker
  - ◆ Individual has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least six (6) weeks prior to planned surgery as evidenced by blood cotinine lab results of  $\leq 10$  ng/mL

## **Myelopathy**

- Greater than six (6) months since the prior cervical disc arthroplasty procedure at the same level
- Subjective symptoms include **ANY** of the following:
  - ◆ Upper/lower extremity weakness, numbness, or pain
  - ◆ Fine motor dysfunction (buttoning, handwriting, clumsiness of hands)
  - ◆ Gait disturbance
  - ◆ New-onset bowel or bladder dysfunction
  - ◆ Frequent falls
- Objective physical exam findings include **ANY** of the following:
  - ◆ Grip and release test
  - ◆ Ataxic gait
  - ◆ Hyperreflexia
  - ◆ Hoffmann sign
  - ◆ Babinski sign
  - ◆ Tandem walking test demonstrating ataxia
  - ◆ Inverted brachial radial reflex
  - ◆ Increased muscle tone or spasticity
  - ◆ Clonus
  - ◆ Myelopathic hand
- Post-operative MRI/CT shows findings that are concordant with the individual's symptoms **and** physical exam findings and that are caused by **EITHER** of the following:
  - ◆ Cervical spinal cord compression
  - ◆ Cervical spinal stenosis

## **CMM-604.8: Non-Indications**

### **Not Medically Necessary**

#### **Posterior Cervical Fusion (with or without Posterior Cervical Decompression)**

- Posterior cervical fusion (with or without posterior cervical decompression) performed without meeting the criteria in the **General Guidelines** (when applicable for urgent/emergent conditions) **and** the criteria in the applicable procedure-specific section (initial [604.3; 604.4; 604.5; or, 604.7], repeat [604.5 or 604.6], or following failed disc arthroplasty) is considered **not medically necessary**.
- Posterior cervical fusion (with or without posterior cervical decompression) is considered **not medically necessary** when performed for **ANY** of the following **sole indications**:
  - ◆ Signs and symptoms with no correlation to imaging studies
  - ◆ Annular tears
  - ◆ Disc bulge with no neural impingement or cord compression on imaging
  - ◆ Concordant Discography
  - ◆ MR Spectroscopy results
  - ◆ Degenerative disc disease
  - ◆ Isolated facet fusion, with or without instrumentation, including allograft bone graft substitutes used exclusively as **stand-alone** stabilization devices (e.g., DTRAX® [cervical], TruFuse® [any level], NuFix® [any level])

#### **Osteotomy**

- Posterior cervical column osteotomy performed without meeting the criteria in the **General Guidelines** (when applicable for urgent/emergent conditions) **and** the posterior column osteotomy (PCO) criteria in **CMM-604.2 Osteotomy** is considered **not medically necessary**.
- Cervical three-column osteotomy or vertebral column resection (VCR) performed without meeting the criteria in the **General Guidelines** (when applicable for urgent/emergent conditions) **and** the cervical three-column osteotomy/VCR criteria in **CMM-604.2 Osteotomy** is considered **not medically necessary**.

## Codes (CMM-604)

The inclusion of any code in this table does not imply that the code is under management or requires prior authorization. Refer to the applicable health plan for management details. Prior authorization of a code listed in this table is not a guarantee of payment. The Certificate of Coverage or Evidence of Coverage policy outlines the terms and conditions of the member's health insurance policy.

| Code          | Code Description/Definition                                                                                                                                                                                                                                                                                                                |
|---------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>22210</b>  | Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; cervical                                                                                                                                                                                                                                                    |
| <b>+22216</b> | Osteotomy of spine, posterior or posterolateral approach, 1 vertebral segment; each additional vertebral segment (List separately in addition to code for primary procedure)                                                                                                                                                               |
| <b>22590</b>  | Arthrodesis, posterior technique, craniocervical (occiput-C2)                                                                                                                                                                                                                                                                              |
| <b>22595</b>  | Arthrodesis, posterior technique, atlas-axis (C1-C2)                                                                                                                                                                                                                                                                                       |
| <b>22600</b>  | Arthrodesis, posterior or posterolateral technique, single interspace; cervical below C2 segment                                                                                                                                                                                                                                           |
| <b>+22614</b> | Each additional vertebral segment (List separately in addition to code for primary procedure)                                                                                                                                                                                                                                              |
| <b>+22840</b> | Posterior non-segmental instrumentation (e.g., Harrington rod technique, pedicle fixation across 1 interspace, atlantoaxial transarticular screw fixation, sublaminar wiring at C1, facet screw fixation) (List separately in addition to code for primary procedure)                                                                      |
| <b>+22841</b> | Internal spinal fixation by wiring of spinous processes (List separately in addition to code for primary procedure)                                                                                                                                                                                                                        |
| <b>+22842</b> | Posterior segmental instrumentation (e.g., pedicle fixation, dual rods with multiple hooks and sublaminar wires); 3 to 6 vertebral segments (List separately in addition to code for primary procedure)                                                                                                                                    |
| <b>+22843</b> | Posterior segmental instrumentation (e.g., pedicle fixation, dual rods with multiple hooks and sublaminar wires); 7 to 12 vertebral segments (List separately in addition to code for primary procedure)                                                                                                                                   |
| <b>63001</b>  | Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g. spinal stenosis), 1 or 2 vertebral segments; cervical                                                                                                                                          |
| <b>63015</b>  | Laminectomy with exploration and/or decompression of spinal cord and/or cauda equina, without facetectomy, foraminotomy or discectomy (e.g., spinal stenosis), more than 2 vertebral segments; cervical                                                                                                                                    |
| <b>63045</b>  | Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [e.g., spinal or lateral recess stenosis]), single vertebral segment; cervical                                                                                                                    |
| <b>+63048</b> | Laminectomy, facetectomy and foraminotomy (unilateral or bilateral with decompression of spinal cord, cauda equina and/or nerve root[s], [e.g. spinal or lateral recess stenosis]), single vertebral segment; each additional vertebral segment, cervical, thoracic, or lumbar (List separately in addition to code for primary procedure) |
| <b>63050</b>  | Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments;                                                                                                                                                                                                                                               |

| Code         | Code Description/Definition                                                                                                                                                                                                                                                             |
|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>63051</b> | Laminoplasty, cervical, with decompression of the spinal cord, 2 or more vertebral segments; with reconstruction of the posterior bony elements (including the application of bridging bone graft and non-segmental fixation devices (e.g., wire, suture, mini-plates), when performed) |
| <b>63265</b> | Laminectomy for excision or evacuation of intraspinal lesion other than neoplasm, extradural; cervical                                                                                                                                                                                  |
| <b>63270</b> | Laminectomy for excision of intraspinal lesion other than neoplasm, intradural; cervical                                                                                                                                                                                                |
| <b>63275</b> | Laminectomy for biopsy/excision of intraspinal neoplasm; extradural, cervical                                                                                                                                                                                                           |
| <b>63280</b> | Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, extramedullary, cervical                                                                                                                                                                                           |
| <b>63285</b> | Laminectomy for biopsy/excision of intraspinal neoplasm; intradural, intramedullary, cervical                                                                                                                                                                                           |
| <b>63290</b> | Laminectomy for biopsy/excision of intraspinal neoplasm; combined extradural-intradural lesion, any level                                                                                                                                                                               |
| <b>0219T</b> | Placement of a posterior intrafacet implant(s), unilateral or bilateral, including imaging and placement of bone graft(s) or synthetic device(s), single level; cervical                                                                                                                |

## **Evidence Discussion (CMM-604)**

### **Posterior Cervical Fusion**

Risks of posterior cervical fusion surgery include, but are not limited to, the following: infection; persistent or incomplete relief of symptoms; dural tear; deep vein thrombosis; pulmonary embolus; stroke; bleeding; vertebral artery injury; nerve root injury; spinal cord injury; paralysis; and, death. Complications related to the implants (e.g., misplacement, migration, subsidence, screw failure/backout) are also possible. Late complications include adjacent segment disease and pseudoarthrosis often necessitating revision surgery at the adjacent or index levels. This may start a cascade of multiple fusions, more complications and poor long term outcome. Some of these complications can be devastating and lead to poor outcome. Primary indications for surgery include individuals with radiculopathy or myelopathy. Other indications include instability in the setting of infection, tumor, trauma and localized or global deformity. Given the potential possibility for significant complications, proper patient selection is critical to minimize the risk benefit ratio. As recommended by the North American Spine Society (NASS) Coverage Policy Recommendations, history, symptoms, physical exam findings, and imaging findings should support posterior cervical fusion. Subjective symptoms and examination findings need to be concordant with imaging as is not uncommon for asymptomatic individuals to have abnormalities on MRI.

Multiple studies have shown that the vast majority of individuals with cervical radiculopathy will improve with a 4-6 week course of non-operative treatment. Initial non-operative management is also noted as a recommendation in the North American Spine Society (NASS) Coverage Policy Recommendations. However, for individuals with myelopathy or other urgent/emergent conditions (e.g., progressive neurologic deficit, instability due to other disorders) a trial of non-operative treatment would not be necessary.

Contraindications to posterior cervical fusion, as noted in the North American Spine Society (NASS) *Coverage Policy Recommendations: Cervical Fusion*, include treatment of discogenic axial neck pain without neurological symptoms, asymptomatic spinal stenosis without MRI evidence of intrinsic spinal cord signal change and no instability during isolated foraminal stenosis surgery.

Jackson et al. (2020) noted higher rates of postoperative complications and worse functional outcomes in individuals with psychological disorders undergoing spinal surgery. It was concluded that proper identification and treatment of these conditions prior to surgery may significantly improve many outcome measures in this population.

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