



CLINICAL GUIDELINES

CMM-601: Anterior Cervical Discectomy and Fusion Guidelines

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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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Clinical guidelines for medical necessity review of Comprehensive Musculoskeletal Management Services.

CMM-601: Anterior Cervical Discectomy and Fusion**CMM-601.1: General Guidelines****CMM-601.2: Initial Primary Anterior Cervical Discectomy and Fusion (ACDF)****CMM-601.3: Repeat Anterior Cervical Discectomy and Fusion (ACDF) at the Same Level****CMM-601.4: Adjacent Segment Disease****CMM-601.5: ACDF Following Failed Cervical Disc Surgery****CMM-601.6: Non-Indications****CMM-601.7: Procedure (CPT[®]) Codes****CMM-601.8: References**

CMM-601.1: General Guidelines

Application of Guideline

- The determination of medical necessity for the performance of cervical fusion with and without discectomy is always made on a case-by-case basis.
- For prior authorization requirements, see **CMM-600.1: Prior Authorization Requirements**.

Urgent/Emergent Indications/Conditions

- The presence of urgent/emergent indications/conditions warrants definitive surgical treatment. Confirmatory advanced imaging studies are required. The following criteria are **NOT** required for confirmed urgent/emergent conditions:
 - ◆ Provider-directed non-surgical management
 - ◆ Proof of smoking cessation
 - ◆ Recent (within 6 months) plain X-rays of the cervical spine
 - ◆ 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)
- Urgent/emergent conditions for cervical fusion with and without discectomy include **ANY** of the following:
 - ◆ Acute/unstable traumatic spinal fractures or dislocations with neural compression
 - ◆ Central cord syndrome
 - ◆ Documentation of progressive neurological deficit on two separate physical examinations
 - ◆ **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
 - ◆ Epidural hematoma
 - ◆ Infection (e.g. discitis, epidural abscess, osteomyelitis)
 - ◆ Myelopathy or Cord signal changes on MRI due to cord compression
 - ◆ Occipitocervical and/or Atlantoaxial (C1-C2) instability (non-traumatic) due to **ANY** of the following:
 - Rheumatoid arthritis
 - Congenital abnormality of occipitocervical/C1-C2 vertebrae
 - Os odontoideum
 - ◆ Neoplasms of the spine
 - ◆ Primary or metastatic neoplastic disease causing pathologic fracture, cord compression or instability
 - ◆ Documentation of severe debilitating pain and/or dysfunction to the point of being incapacitated
 - ◆ Plain x-rays demonstrate instability and include **ANY** of the following:
 - 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

CMM-601.2: Initial Primary Anterior Cervical Discectomy and Fusion (ACDF)

Initial primary anterior cervical discectomy and fusion (ACDF) is considered **medically necessary** when performed for **EITHER** of the following conditions when **ALL** of the associated criteria are met:

Radiculopathy

- Subjective symptoms including **BOTH** of the following:
 - ◆ Significant level of pain on a daily basis defined as **EITHER** of the following:
 - Visual Analog Scale (VAS)/Numeric Rating Scale (NRS) as ≥ 7
 - Severe, disabling, crippling, or incapacitating pain
 - ◆ Unremitting radicular pain to shoulder girdle and/or upper extremity resulting in disability
- Objective physical examination findings including **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 examination findings
- Less than clinically meaningful improvement with at least **TWO** of the following (unless contraindicated):
 - ◆ Prescription strength analgesics, steroids, and/or NSAIDs for 6 weeks
 - ◆ Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician for 6 weeks
 - ◆ Epidural steroid injection(s) or selective nerve root block(s) performed at the same level(s) as the requested surgery
- Recent (within 6 months) plain X-rays of the cervical spine have been performed
- Recent (within 6 months) MRI/CT identifies nerve root impingement caused by herniated disc(s) and/or osteophytes that is concordant with the patient's symptoms **and** physical examination findings
- 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:
 - ◆ Patient is a never-smoker
 - ◆ Patient has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least 6 weeks prior to planned surgery as evidenced by blood cotinine lab results of ≤ 10 ng/mL

Myelopathy

- Subjective symptoms including **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 examination findings including at least **TWO** of the following:
 - ◆ Grip and release test
 - ◆ Ataxic gait
 - ◆ Hyperreflexia
 - ◆ Hoffmann sign
 - ◆ Pathologic Babinski sign
 - ◆ Tandem walking test demonstrating ataxia
 - ◆ Inverted brachial radial reflex
 - ◆ Increased muscle tone or spasticity
 - ◆ Clonus
 - ◆ Myelopathic hand
- Recent (within 6 months) MRI/CT findings are concordant with the patient's symptoms **and** physical exam findings showing **EITHER** of the following:
 - ◆ MRI/CT identifies cervical spinal cord compression
 - ◆ MRI/CT identifies cervical spinal stenosis

CMM-601.3: Repeat Anterior Cervical Discectomy and Fusion (ACDF) at the Same Level

Repeat anterior cervical discectomy and fusion (ACDF) at the same level is considered medically necessary when performed for **ANY** of the following conditions when **ALL** of the associated criteria are met:

Malposition or Failure of Implant/Structural Bone Graft

- Radiographic evidence of the malposition or failure of the implant/instrumentation or structural bone graft on a recent (within 6 months) post-operative plain X-rays of the cervical spine including flexion/extension lateral views

Unremitting Neck Pain with Pseudoarthrosis

- Greater than 6 months since prior anterior cervical discectomy and fusion (ACDF) procedure at the same level
- Significant level of pain on a daily basis defined as **EITHER** of the following:
 - ◆ Visual Analog Scale (VAS)/Numeric Rating Scale (NRS) as ≥ 7
 - ◆ Severe, disabling, crippling, or incapacitating pain
- Recent (within 6 months) post-operative physical examination findings are concordant with the patient's symptoms

- Less than clinically meaningful improvement with 6 weeks of non-surgical treatment with **BOTH** of the following (unless contraindicated):
 - ◆ Prescription strength analgesics, steroids, and/or NSAIDs
 - ◆ Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician
- Pseudoarthrosis is documented by confirmatory imaging that is performed at no less than 6 months after initial fusion
- Recent (within 6 months) post-operative MRI/CT findings are concordant with the patient'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:
 - ◆ Patient is a never-smoker
 - ◆ Patient has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least 6 weeks prior to planned surgery as evidenced by blood cotinine lab results of ≤ 10 ng/mL

Radiculopathy with Pseudarthrosis

- Greater than 6 months since the initial anterior cervical discectomy/fusion surgery at the same level
- Initial relief of symptoms following previous anterior cervical decompression procedure at the same level
- Subjective symptoms including **BOTH** of the following:
 - ◆ Significant level of pain on a daily basis defined as **EITHER** of the following:
 - Visual Analog Scale (VAS)/Numeric Rating Scale (NRS) as ≥ 7
 - Severe, disabling, crippling, or incapacitating pain
 - ◆ Unrelenting radicular pain to shoulder girdle and/or upper extremity resulting in disability
- Objective physical examination findings including **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)
 - ◆ Unrelenting radicular pain to shoulder girdle and/or upper extremity without concordant objective physical examination findings
- Less than clinically meaningful improvement with at least **TWO** of the following (unless contraindicated):
 - ◆ Prescription strength analgesics, steroids, and/or NSAIDs for 6 weeks
 - ◆ Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician for 6 weeks

- ◆ Selective nerve root block(s) or epidural steroid injection(s) performed at the same level(s) as the requested surgery
- Pseudoarthrosis is documented by confirmatory imaging that is performed at no less than 6 months after initial fusion
- Recent (within 6 months) post-operative MRI/CT identifies nerve root impingement caused by herniated disc(s) and/or osteophytes that is concordant with the patient's symptoms **and** physical examination findings
- 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:
 - ◆ Patient is a never-smoker
 - ◆ Patient has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least 6 weeks prior to planned surgery as evidenced by blood cotinine lab results of ≤ 10 ng/mL

Myelopathy with Pseudarthrosis

- Greater than 6 months since prior anterior cervical discectomy and fusion (ACDF) procedure at the same level
- Subjective symptoms including **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 examination findings including at least **TWO** of the following:
 - ◆ Grip and release test
 - ◆ Ataxic gait
 - ◆ Hyperreflexia
 - ◆ Hoffmann sign
 - ◆ Pathologic Babinski sign
 - ◆ Tandem walking test demonstrating ataxia
 - ◆ Inverted brachial radial reflex
 - ◆ Increased muscle tone or spasticity
 - ◆ Clonus
 - ◆ Myelopathic hand
- Pseudoarthrosis is documented by confirmatory imaging that is performed at no less than 6 months after initial fusion
- Recent (within 6 months) post-operative MRI/CT findings are concordant with the patient's symptoms **and** physical exam findings showing **EITHER** of the following:
 - ◆ MRI /CT identifies cervical spinal cord compression
 - ◆ MRI /CT identifies cervical stenosis

CMM-601.4: Adjacent Segment Disease

Anterior cervical discectomy and fusion (ACDF) for a degenerative spinal segment adjacent to a previous decompression or fusion procedure is considered **medically necessary** when performed for **EITHER** of the following conditions when **ALL** of the associated criteria are met:

Radiculopathy

- The prior decompression or fusion procedure at the previous operative level was performed at least 6 months prior.
- Subjective symptoms including **BOTH** of the following:
 - ◆ Significant level of pain on a daily basis defined as **EITHER** of the following:
 - Visual Analog Scale (VAS)/Numeric Rating Scale (NRS) as ≥ 7
 - Severe, disabling, crippling, or incapacitating pain
 - ◆ Unrelenting radicular pain to shoulder girdle and/or upper extremity resulting in disability
- Objective physical examination findings including **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)
 - ◆ Unrelenting radicular pain to shoulder girdle and/or upper extremity without concordant objective physical examination findings
- Less than clinically meaningful improvement with at least **TWO** of the following (unless contraindicated):
 - ◆ Prescription strength analgesics, steroids, and/or NSAIDs for 6 weeks
 - ◆ Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician for 6 weeks
 - ◆ Epidural steroid injection(s) or selective nerve root block(s) performed at the same level(s) as the requested surgery
- Recent (within 6 months) plain X-rays of the cervical spine including flexion/extension lateral views **and** advanced diagnostic imaging demonstrating successful decompression and fusion at the previous operative level
- Recent (within 6 months) MRI/CT identifies nerve root impingement at the symptomatic adjacent segment caused by herniated disc(s) or osteophytes that is concordant with the patient's symptoms **and** physical examination findings
- 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:
 - ◆ Patient is a never-smoker

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

Myelopathy

- Subjective symptoms including **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 due to a neurocompressive pathology
 - ◆ Frequent falls
- Objective concordant physical examination findings including at least **TWO** of the following:
 - ◆ Grip and release test
 - ◆ Ataxic gait
 - ◆ Hyperreflexia
 - ◆ Hoffmann sign
 - ◆ Pathologic Babinski sign
 - ◆ Tandem walking test demonstrating ataxia
 - ◆ Inverted brachial radial reflex
 - ◆ Increased muscle tone or spasticity
 - ◆ Clonus
 - ◆ Myelopathic hand
- Recent (within 6 months) MRI/CT findings are concordant with the patient's symptoms **and** physical exam findings showing **EITHER** of the following:
 - ◆ MRI/CT identifies cervical spinal cord compression
 - ◆ MRI/CT identifies cervical spinal stenosis

CMM-601.5: ACDF Following Failed Cervical Disc Arthroplasty Surgery

Anterior cervical decompression and fusion (ACDF) following failed cervical disc arthroplasty surgery is considered **medically necessary** when performed for **ANY** of the following conditions when **ALL** of the associated criteria are met:

Failed Cervical Disc Arthroplasty Implant

- Recent (within 6 months) post-operative imaging studies identifies failure of a cervical disc arthroplasty implant (i.e. subsidence, loosening, infection, dislocation, subluxation, vertebral body fracture, dislodgement)

Unremitting Neck Pain

- Greater than 6 months since prior since prior cervical disc arthroplasty procedure at the same level
- Significant level of pain on a daily basis defined as **EITHER** of the following:
 - ◆ Visual Analog Scale (VAS)/Numeric Rating Scale (NRS) as ≥ 7
 - ◆ Severe, disabling, crippling, or incapacitating pain
- Recent (within 6 months) post-operative physical examination findings that are concordant with the patient's symptoms
- Less than clinically meaningful improvement with **BOTH** of the following for at least 6 weeks (unless contraindicated):
 - ◆ Prescription strength analgesics, steroids, and/or NSAIDs
 - ◆ Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician
- Recent (within 6 months) post-operative MRI/CT findings that are concordant with the patient'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:
 - ◆ Patient is a never-smoker
 - ◆ Patient has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least 6 weeks prior to planned surgery as evidenced by blood cotinine lab results of ≤ 10 ng/mL

Radiculopathy

- Greater than 6 months since the prior cervical disc arthroplasty procedure at the same level
- Subjective symptoms including **BOTH** of the following:
 - ◆ Significant level of pain on a daily basis defined as **EITHER** of the following:
 - Visual Analog Scale (VAS)/Numeric Rating Scale (NRS) as ≥ 7

- Severe, disabling, crippling, or incapacitating pain
- ◆ Unremitting radicular pain to shoulder girdle and/or upper extremity resulting in disability
- Objective physical examination findings including **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 examination findings
- Less than clinically meaningful improvement with any **TWO** of the following (unless contraindicated):
 - ◆ Prescription strength analgesics, steroids, and/or NSAIDs for 6 weeks
 - ◆ Provider-directed exercise program prescribed by a physical therapist, chiropractic provider, osteopathic or allopathic physician for 6 weeks
 - ◆ Epidural steroid injection(s) or selective nerve root block(s) performed at the same level(s) as the requested surgery
- Recent (within 6 months) post-operative MRI/CT identifies nerve root impingement caused by herniated disc(s) or osteophytes that is concordant with the patient's symptoms **and** physical examination findings
- 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:
 - ◆ Patient is a never-smoker
 - ◆ Patient has refrained from smoking, use of smokeless tobacco products, and/or nicotine replacement therapy for at least 6 weeks prior to planned surgery as evidenced by blood cotinine lab results of ≤ 10 ng/mL

Myelopathy

- Greater than 6 months since the prior cervical disc arthroplasty procedure at the same level
- Subjective symptoms including **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 examination findings including at least **TWO** of the following:
 - ◆ Grip and release test
 - ◆ Ataxic gait
 - ◆ Hyperreflexia

- ◆ Hoffmann sign
 - ◆ Pathologic Babinski sign
 - ◆ Tandem walking test demonstrating ataxia
 - ◆ Inverted brachial radial reflex
 - ◆ Increased muscle tone or spasticity
 - ◆ Clonus
 - ◆ Myelopathic hand
- Recent (within 6 months) post-operative MRI/CT findings are concordant with the patient's symptoms **and** physical examination findings showing **EITHER** of the following:
- ◆ MRI/CT identifies cervical spinal cord compression
 - ◆ MRI/CT identifies cervical spinal stenosis

CMM-601.6: Non-Indications

Not Medically Necessary

- Anterior cervical discectomy and fusion (ACDF) performed without meeting the requirements listed in the General Guidelines and the specific procedure sections is **not medically necessary** including, but not limited to **EITHER** of the following:
- ◆ Chronic non-specific neck or arm pain of unknown etiology
 - ◆ Cervical degenerative disc disease without radiculopathy or myelopathy

CMM-601.7: Procedure (CPT®) Codes

This guideline relates to the CPT® code set below. Codes are displayed for informational purposes only. Any given code's inclusion on this list does not necessarily indicate prior authorization is required.

CPT®	Code Description/Definition
22548	Arthrodesis, anterior transoral or extraoral technique, clivus-C1-C2 (atlas-axis), with or without excision of odontoid process
22551	Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophylectomy and decompression of spinal cord and/or nerve roots; cervical below C2
+22552	Arthrodesis, anterior interbody, including disc space preparation, discectomy, osteophylectomy and decompression of spinal cord and/or nerve roots; cervical below C2, each additional interspace (List separately in addition to code for separate procedure)
22554	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); cervical below C2
+22585	Arthrodesis, anterior interbody technique, including minimal discectomy to prepare interspace (other than for decompression); each additional interspace (List separately in addition to code for primary procedure)
+22845	Anterior instrumentation; 2 to 3 vertebral segments (List separately in addition to code for primary procedure)
+22846	Anterior instrumentation; 4 to 7 vertebral segments (List separately in addition to code for primary procedure)
+22853	Insertion of interbody biomechanical device(s) (eg, synthetic cage, mesh) with integral anterior instrumentation for device anchoring (eg, screws, flanges), when performed, to intervertebral disc space in conjunction with interbody arthrodesis, each interspace (List separately in addition to code for primary procedure)
+22854	Insertion of intervertebral biomechanical device(s) (eg, synthetic cage, mesh) with integral anterior instrumentation for device anchoring (eg, screws, flanges), when performed, to vertebral corpectomy(ies) (vertebral body resection, partial or complete) defect, in conjunction with interbody arthrodesis, each contiguous defect (List separately in addition to code for primary procedure)
+22859	Insertion of intervertebral biomechanical device(s) (eg, synthetic cage, mesh, methylmethacrylate) to intervertebral disc space or vertebral body defect without interbody arthrodesis, each contiguous defect (List separately in addition to code for primary procedure)
63075	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophylectomy; cervical, single interspace
+63076	Discectomy, anterior, with decompression of spinal cord and/or nerve root(s), including osteophylectomy; cervical, each additional interspace (List separately in addition to code for primary procedure)
63081	Vertebral corpectomy (vertebral body resection), partial or complete, anterior approach with decompression of spinal cord and/or nerve roots(s); cervical, single segment
+63082	Vertebral corpectomy (vertebral body resection), partial or complete, anterior approach with decompression of spinal cord and/or nerve roots(s); cervical, single segment; cervical, each additional segment (List separately in addition to code for primary procedure)

This list may not be all inclusive and is not intended to be used for coding/billing purposes. The final determination of reimbursement for services is the decision of the health plan and is based on the individual's policy or benefit entitlement structure as well as claims processing rules.

CMM-601.8: References

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