04-70450-23

Original Effective Date: 09/15/09

Reviewed: 07/25/24

Revised: 08/15/24

Subject: Computed Tomography (CT) Spine (Cervical, Thoracic, Lumbar)

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DESCRIPTION:

Computed tomography (CT) is a radiologic modality that provides clinical information in the detection, differentiation and demarcation of disease. CT is a form of medical imaging that involves the exposure of members to ionizing radiation. CT should only be performed under the supervision of a physician with training in radiation protection to optimize examination safety. Radiation exposure should be taken into account when considering the use of this technology. This guideline addresses the use of CT of the spine (cervical, thoracic, lumbar) for evaluation, diagnosis and management of spine related conditions in the outpatient setting.

Summary and Analysis of Evidence: Computed tomography (CT) is a technology using ionizing radiation to generate images resulting from differential X-ray absorption of the specific tissues examined. CT produces cross-sectional displays and allows for multidimensional 2-D and 3-D reconstructions and offers a high degree of clinical utility for examining the spine. Primary indications for CT of the spine include, but are not limited to: Adult spine trauma and used in evaluating vertebral compression/insufficiency fractures in both acute and chronic clinical situations, pediatric spine trauma, degenerative changes (e.g., spinal stenosis, disc degeneration), abnormalieies related to the spine (e.g., scoliosis, spondylosis), postoperative evaluation, evaluation of infectious processes of the spine and paraspinal tissues, evaluation of primary or metastatic neoplasms of the spine, imaging guidance before, during, and after various spine interventions (e.g., biopsy, aspiration, radiotherapy) (ACR–ASNR–ASSR–SPR, 2022).

POSITION STATEMENT:

Computed tomography (CT) of the spine (cervical, thoracic, lumbar) **meets the definition of medical necessity** for the diagnosis and evaluation of the following:

INDICATIONS FOR CERVICAL SPINE CT

Evaluation of neurologic deficits when cervical spine MRI is contraindicated or inappropriate

- Any of the following neurologic deficits documented on physical exam:
  - Extremity weakness
  - Pathologic reflexes (e.g., positive Babinski sign, Lhermitte's sign, Chaddock sign, Hoffman's sign) or abnormal reflexes
  - Absent/decreased sensory changes along a particular dermatome (nerve distribution): pin prick, touch, vibration, proprioception or temperature
  - Upper or lower extremity increase muscle tone/spasticity
  - New onset bowel or bladder dysfunction (e.g., retention, incontinence)
  - Gait abnormalities
- Suspected cord compression with any of the above neurologic deficits.

Evaluation of neck pain with any of the following when cervical spine MRI is contraindicated

- New or worsening objective neurologic deficits on exam
- Failure of conservative treatment for at least six (6) weeks within the last six (6) months
- With progression or worsening of symptoms during the course of conservative treatment
- With an abnormal electromyography (EMG) or nerve conduction study (if performed) indicating a spinal abnormality.
- Isolated neck pain in pediatric population (conservative care not required if red flags present)
  - Red flags that prompt imaging should include the presence of: age 5 or younger, constant pain, pain lasting >4 weeks, abnormal neurologic examination, early morning stiffness and/or gelling; night pain that prevents or disrupts sleep; radicular pain; fever; weight loss; malaise; postural changes (e.g., kyphosis or scoliosis); and limp (or refusal to walk in a younger child < 5 years old) and initial radiographs have been performed
  - Neck pain associated with suspected inflammation, infection, or malignancy.

Initial pre or post-operative/procedural evaluation

- Preoperative evaluation/planning
- CT discogram
- CSF leak highly suspected and supported by member history and/or physical exam findings (leak (known or suspected, spontaneous (idiopathic)), intracranial hypotension (SIH), post lumbar puncture headache, post spinal surgery headache, orthostatic headache, rhinorrhea or otorrhea, or cerebrospinal-venous fistula
- A follow-up study may be needed to help evaluate a member's progress after treatment, procedure, intervention, or surgery in the last 6 months. Documentation requires a medical reason that clearly

indicates why additional imaging is needed for the type and area(s) requested (routine surveillance post-op not indicated without symptoms)

- Changing neurologic status post-operatively
- Surgical infection
- Residual or new neurological deficits or symptoms
- Combo requests (e.g. MRI and CT of the spine) the office notes should clearly document the need for both studies to be done simultaneously (e.g., the need for both soft tissue and bony anatomy is required)
    - Combination requests where both cervical spine CT and MRI cervical spine are appropriate (not an all-inclusive list):
        - Ossification of posterior longitudinal ligament (OPLL)
        - Pathologic or complex fractures
        - Malignant process of spine with both bony and soft tissue involvement
        - Unstable craniocervical junction
        - Clearly documented indication for bony and soft tissue abnormality where assessment will change management for the member.

Evaluation of suspected myelopathy when cervical spine MRI is contraindicated

- Progressive symptoms including hand clumsiness, worsening handwriting, difficulty with grasping and holding objects, diffuse numbness in the hands, pins and needles sensation, increasing difficulty with balance and ambulation.

Evaluation of trauma or acute injury

- Presents with any of the neurological deficits as noted above
- With progression or worsening of symptoms during the course of conservative treatment
- When the member is clinically unevaluable or there are preliminary imaging findings (x-ray or CT) needing further evaluation
- When office notes specify the member meets National Emergency X-Radiography Utilization Study (NEXUS) or Canadian Cervical Rules (CCR) criteria for imaging:
    - CT for initial imaging
    - MRI when suspect spinal cord or nerve root injury or when patient is obtunded, and CT is negative
    - CT or MRI for treatment planning of unstable spine.

Note; MRI and CT provide complementary information; it is appropriate to perform both when indicated.

Evaluation of known fracture or new compression fractures

- Assess union of a fracture when physical examination, plain radiographs or prior imaging suggest delayed or non-healing
- Determine the position of fracture fragments
- History of malignancy (if MRI is contraindicated or cannot be performed)
- With an associated new focal neurologic deficit as noted above
- Prior to a planned surgery/intervention or if the results of the CT will change management.

Evaluation of tumor, cancer or metastasis

Primary tumor

- Initial staging or re-staging of a known primary spinal tumor
- Known spinal tumor with new signs or symptoms (e.g., new or increasing nontraumatic pain, physical, laboratory, and/or imaging findings)
- With an associated new focal neurologic deficit as noted above.

Metastatic tumor

- Evidence of metastasis on bone scan needing further clarification.
- Inconclusive findings on a prior imaging exam
- Known malignancy with new signs or symptoms in a tumor that tends to metastasize to the spine
- With an associated new focal neurologic deficit as noted above
- Initial imaging of new or increasing non-traumatic neck pain or radiculopathy or neck pain that occurs at night and wakes the patient from sleep with known active cancer and a tumor that tends to metastasize to the spine.

Evaluation of inconclusive/indeterminate finding on prior imaging that requires further clarification

Evaluation of known or suspected infection/abscess when cervical spine MRI is contraindicated

- Follow-up imaging of infection
    - With worsening symptoms/laboratory values or radiographic findings.

Evaluation of known or suspected inflammatory disease or atlantoaxial instability when MRI is contraindicated or for surgical treatment planning

- In rheumatoid arthritis with neurologic signs/symptoms, or evidence of subluxation on radiographs
    - Members with negative radiographs but symptoms suggestive of cervical instability or in members with neurologic deficits
- High-risk disorders affecting the atlantoaxial articulation, such as Down syndrome, Marfan syndrome with neurological signs/symptoms, abnormal neurological exam, or evidence of abnormal or inconclusive radiographs of the cervical spine

- Ankylosing Spondylitis/Spondyloarthropathies (known or suspected) with non-diagnostic or indeterminate x-ray and appropriate rheumatology workup.

Evaluation of spine abnormalities related to immune system suppression (e.g., HIV, chemotherapy, leukemia, or lymphoma) when cervical spine MRI is contraindicated

Other indications for a cervical spine CT when MRI is contraindicated or cannot be performed

- Tethered cord, or spinal dysraphism (known or suspected) based on preliminary imaging, neurological exam, and/or high-risk cutaneous stigmata
- Known Arnold Chiari syndrome
  - Known Chiari I malformation without syrinx or hydrocephalus, follow-up imaging after initial diagnosis with new or changing signs/symptoms or exam findings consistent with spinal cord pathology
  - Known Chiari II (Arnold-Chiari syndrome), III, or IV malformation
  - Achondroplasia (one cervical spine MRI to assess the craniocervical junction, as early as possible (even in asymptomatic cases)
- Syrinx or syringomyelia (known or suspected)
  - With neurologic findings and/or predisposing conditions (e.g., Chiari malformation, prior trauma, neoplasm, arachnoiditis, severe spondylosis)
  - To further characterize a suspicious abnormality seen on prior imaging
  - Known syrinx with new/worsening symptoms
- Toe walking in a child when associated with upper motor neuron signs, including hyperreflexia, spasticity; or orthopedic deformity with concern for spinal cord pathology (e.g., pes cavus, clawed toes, leg or foot length deformity (excluding tight heel cords)).

INDICATIONS FOR THORACIC SPINE CT

Evaluation of neurologic deficits when thoracic spine MRI is contraindicated or inappropriate

- Any of the following neurologic deficits documented on physical exam:
  - Extremity weakness
  - Pathologic reflexes (e.g., positive Babinski sign, Lhermitte's sign, Chaddock sign, Hoffman's sign) or abnormal reflexes
  - Absent/decreased sensory changes along a particular dermatome (nerve distribution): pin prick, touch, vibration, proprioception or temperature
  - Upper or lower extremity increase muscle tone/spasticity
  - New onset bowel or bladder dysfunction (e.g., retention, incontinence)
  - Gait abnormalities
- Suspected cord compression with any of the above neurologic deficits.

Evaluation of chronic back pain, with any of the following when thoracic spine MRI is contraindicated

- New or worsening objective neurologic deficits on exam as noted above
- Failure of conservative treatment for at least six (6) weeks within the last six (6) months.
- With progression or worsening of symptoms during the course of conservative treatment
- With an abnormal electromyography (EMG) or nerve conduction study (if performed) indicating a thoracic radiculopathy.
- Isolated back pain in pediatric population (conservative care not required if red flags present)
    - Red flags that prompt imaging should include the presence of: age 5 or younger, constant pain, pain lasting >4 weeks, abnormal neurologic examination, early morning stiffness and/or gelling; night pain that prevents or disrupts sleep; radicular pain; fever; weight loss; malaise; postural changes (e.g., kyphosis or scoliosis); and limp (or refusal to walk in a child < 5 years old) and initial radiographs have been performed
    - Back pain associated with suspected inflammation, infection, or malignancy.

Initial pre or post-operative/procedural evaluation

- Preoperative evaluation/planning
- CT discogram
- CSF leak highly suspected and supported by member history and/or physical exam findings (leak (known or suspected, spontaneous (idiopathic)), intracranial hypotension (SIH), post lumbar puncture headache, post spinal surgery headache, orthostatic headache, rhinorrhea or otorrhea, or cerebrospinal-venous fistula)
- Prior to spinal cord stimulator to exclude canal stenosis if no prior imaging of the thoracic spine has been done recently and MRI is contraindicated
- A follow-up study may be needed to help evaluate a member's progress after treatment, procedure, intervention, or surgery in the last 6 months. Documentation requires a medical reason that clearly indicates why additional imaging is needed for the type and area(s) requested (routine surveillance post-op not indicated without symptoms)
- Changing neurologic status post-operatively
- Surgical infection
- Residual or new neurological deficits or symptoms

Evaluation of suspected myelopathy when thoracic spine MRI is contraindicated

- Progressive symptoms including hand clumsiness, worsening handwriting, difficulty with grasping and holding objects, diffuse numbness in the hands, pins and needles sensation, increasing difficulty with balance and ambulation.

Evaluation of trauma or acute injury

- Presents with any of the neurological deficits noted above

- With progression or worsening of symptoms during the course of conservative treatment
- History of underlying spinal abnormalities (e.g., ankylosing spondylitis, diffuse idiopathic skeletal hyperostosis) (both MRI and CT may be appropriate)
- When the member is clinically unevaluable or there are preliminary imaging findings (x-ray or CT) needing further evaluation.

Evaluation of known fracture or known new compression fractures

- Assess union of a fracture when physical examination, plain radiographs, or prior imaging suggest delayed or non-healing
- Determine the position of fracture fragments
- History of malignancy (if MRI is contraindicated or cannot be performed)
- With an associated new focal neurologic deficit
- Prior to a planned surgery/intervention or if the results of the MRI will change management.

Evaluation of known tumor, cancer, or evidence of metastasis

Primary tumor

- Initial staging or re-staging of a known primary spinal tumor
- Known spinal tumor with new signs or symptoms.

Metastatic tumor

- Evidence of metastasis on bone scan needing further clarification or inconclusive findings on a prior imaging exam
- Known malignancy with new signs or symptoms in a tumor that tends to metastasize to the spine
- With an associated new focal neurologic deficit as noted above
- Initial imaging of new or increasing non-traumatic neck pain or radiculopathy or neck pain that occurs at night and wakes the member from sleep with known active cancer and a tumor that tends to metastasize to the spine.

Evaluation of inconclusive/indeterminate finding on prior imaging that requires further clarification

Evaluation of known or suspected infection/abscess when thoracic spine MRI is contraindicated

- Follow-up imaging of infection
    - With worsening symptoms/laboratory values.

Evaluation of known or suspected inflammatory disease when MRI is contraindicated or cannot be performed

- Known or suspected ankylosing spondylitis/spondyloarthropathies with non-diagnostic or indeterminate x-ray and appropriate rheumatology workup.

Evaluation of spine abnormalities related to immune system suppression, e.g., HIV, chemotherapy, leukemia, or lymphoma when thoracic MRI is contraindicated

- As evidenced by signs/symptoms, laboratory or prior imaging findings.

Other indications for a thoracic spine CT when MRI is contraindicated or cannot be performed

- Tethered cord, or spinal dysraphism (known or suspected) based on preliminary imaging, neurological exam, and/or high-risk cutaneous stigmata
- Known Arnold-Chiari syndrome
    - Known Chiari I malformation without syrinx or hydrocephalus, follow-up imaging after initial diagnosis with new or changing signs/symptoms or exam findings consistent with spinal cord pathology
    - Known Chiari II (Arnold-Chiari syndrome), III, or IV malformation
- Syrinx or syringomyelia (known or suspected)
    - With neurologic findings and/or predisposing conditions (e.g., Chiari malformation, prior trauma, neoplasm, arachnoiditis, severe spondylosis)
    - To further characterize a suspicious abnormality seen on prior imaging
    - Known syrinx with new/worsening symptoms
- Toe walking in a child when associated with upper motor neuron signs, including hyperreflexia, spasticity; or orthopedic deformity with concern for spinal cord pathology (e.g., pes cavus, clawed toes, leg or foot length deformity (excluding tight heel cords)).

INDICATIONS FOR LUMBAR SPINE CT

NOTE: MRI is the imaging modality of choice for most lumbar spine imaging indications, unless contraindicated or not tolerated by the member.

Evaluation of neurologic deficits when lumbar spine MRI is contraindicated or inappropriate

- Any of the following neurologic deficits documented on physical exam:
    - Extremity weakness
    - Pathologic reflexes (e.g., positive Babinski sign, Lhermitte's sign, Chaddock sign, Hoffman's sign) or abnormal reflexes
    - Absent/decreased sensory changes along a particular dermatome (nerve distribution): pin prick, touch, vibration, proprioception or temperature
    - Upper or lower extremity increase muscle tone/spasticity
    - New onset bowel or bladder dysfunction (e.g., retention, incontinence)

- Gait abnormalities
- Cauda Equina Syndrome as evidence by severe back pain/sciatica along with one of the following: saddle anesthesia (loss of sensation restricted to the area of the buttocks, perineum and inner surfaces of the thighs (areas that would sit on a saddle), recent bladder/bowel dysfunction, Achilles reflex absent on both sides, sexual dysfunction (sudden), absent anal reflex and bulbocavernosus reflex.

Evaluation of chronic back pain with any of the following when lumbar spine MRI is contraindicated

- With new or worsening objective neurologic deficits on exam as noted above
- Failure of conservative treatment for at least six (6) weeks within the last six (6) months.
- With progression or worsening of symptoms during the course of conservative treatment.
- With an abnormal electromyography (EMG) or nerve conduction study (if performed) indicating a lumbar radiculopathy
- Isolated back pain in pediatric population (conservative care not required if red flags present)
  - Red flags that prompt imaging should include the presence of: age 5 or younger, constant pain, pain lasting >4 weeks, abnormal neurologic examination, early morning stiffness and/or gelling; night pain that prevents or disrupts sleep; radicular pain; fever; weight loss; malaise; postural changes (e.g., kyphosis or scoliosis); and limp (or refusal to walk in a child < 5 years old) and initial radiographs have been performed
  - Back pain associated with suspected inflammation, infection or malignancy.

As part of initial pre or post-operative/procedural evaluation

Surgical planning

- Preoperative evaluation/planning
- CT discogram
- CSF leak highly suspected and supported by member history and/or physical exam findings (leak (known or suspected, spontaneous (idiopathic)), intracranial hypotension (SIH), post lumbar puncture headache, post spinal surgery headache, orthostatic headache, rhinorrhea or otorrhea, or cerebrospinal-venous fistula
- A follow-up study may be needed to help evaluate a member's progress after treatment, procedure, intervention, or surgery in the last 6 months. Documentation requires a medical reason that clearly indicates why additional imaging is needed for the type and area(s) requested (routine surveillance post-op not indicated without symptoms)
- Changing neurologic status post-operatively
- Surgical infection
- Residual or new neurological deficits or symptoms.

Evaluation of trauma or acute injury

- Presents with any of the neurological deficits as noted above
- With progression or worsening of symptoms during the course of conservative treatment
- History of underlying spinal abnormalities (e.g., ankylosing spondylitis, diffuse idiopathic skeletal hyperostosis) (both MRI and CT may be appropriate)
- When the member is clinically unevaluable or there are preliminary imaging findings (x-ray or CT) needing further evaluation.

Evaluation of known or new compression fractures

- Assess union of a fracture when physical examination, plain radiographs, or prior imaging suggest delayed or non-healing
- Determine the position of fracture fragments
- With history of malignancy (if MRI is contraindicated or cannot be performed)
- With an associated new focal neurologic deficit as noted above
- Prior to a planned surgery/intervention or if the results of the MRI will change management.

Pars defect (spondylolysis) or spondylisthesis

- Pars defect (spondylolysis) or spondylisthesis in adults when flexion/extension x-rays show instability
- Clinically suspected pars defect (spondylolysis) which is not seen on plain films in pediatric population (< 18 yr) (flexion extension instability not required) and imaging would change treatment and MRI is contraindicated.

Evaluation of known tumor, cancer, or evidence of metastasis with any of the following

Primary tumor

- Initial staging or re-staging of a known primary spinal tumor
- Known spinal tumor with new signs or symptoms.

Metastatic tumor

- Evidence of metastasis on bone scan needing further clarification or inconclusive findings on a prior imaging exam
- Known malignancy with new signs or symptoms in a tumor that tends to metastasize to the spine
- Initial imaging of new or increasing non-traumatic neck pain or radiculopathy or neck pain that occurs at night and wakes the member from sleep with known active cancer and a tumor that tends to metastasize to the spine.

Evaluation of inconclusive/indeterminate finding on prior imaging that requires further clarification

Evaluation of known or suspected infection, abscess, or inflammatory disease when lumbar spine MRI is contraindicated

- Infection
  - As evidenced by signs/symptoms, laboratory or prior imaging findings
  - Follow-up imaging of infection:
    - With worsening symptoms/laboratory values or radiographic findings.

Evaluation of known or suspected inflammatory disease when MRI is contraindicated or cannot be performed

- Known or suspected ankylosing spondylitis/spondyloarthropathies with non-diagnostic or indeterminate x-ray and rheumatology workup.

Evaluation of spine abnormalities related to immune system suppression (e.g., HIV, chemotherapy, leukemia, or lymphoma) when lumbar spine MRI is contraindicated

- As evidenced by signs/symptoms, laboratory or prior imaging findings.

Other indications for a lumbar spine CT when MRI is contraindicated or cannot be performed

- Tethered cord, or spinal dysraphism (known or suspected) based on preliminary imaging, neurological exam, and/or high-risk cutaneous stigmata
- Known anal rectal formations
- Suspicious sacral dimple (those that are deep, larger than 0.5 cm, located within the superior portion of the gluteal crease or above the gluteal crease, multiple dimples, or associated with other cutaneous markers) or duplicated or deviated gluteal clef (members ≤ 3 months should have ultrasound)
- Toe walking in a child when associated with upper motor neuron signs, including hyperreflexia, spasticity; or orthopedic deformity with concern for spinal cord pathology (e.g., pes cavus, clawed toes, leg or foot length deformity (excluding tight heel cords))
- Known Chiari II (Arnold-Chiari syndrome), III, or IV malformation
- Follow-up/repeat evaluation of Arnold-Chiari I with new signs or symptoms suggesting recurrent spinal cord tethering.

BILLING/CODING INFORMATION:

CPT Coding:

72125	Computed tomography, cervical spine; without contrast material
72126	Computed tomography, cervical spine; with contrast material(s)
72127	Computed tomography, cervical spine; without contrast material, followed by contrast material(s) and further sections
72128	Computed tomography, thoracic spine; without contrast material
72129	Computed tomography, thoracic spine; with contrast material(s)

72130	Computed tomography, thoracic spine; without contrast material, followed by contrast material(s) and further sections
72131	Computed tomography, lumbar spine; without contrast material
72132	Computed tomography, lumbar spine; with contrast material(s)
72133	Computed tomography, lumbar spine; without contrast material, followed by contrast material(s) and further sections
76380	Computed tomography, limited or localized follow-up study

LOINC Codes:

The following information may be required documentation to support medical necessity: physician history and physical, physician progress notes, plan of treatment and reason for computed tomography (CT) of the spine (cervical, thoracic, lumbar).

Documentation Table	LOINC Codes	LOINC Time Frame Modifier Code	LOINC Time Frame Modifier Codes Narrative
Physician history and physical	28626-0	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Attending physician progress note	18741-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Plan of treatment	18776-5	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology reason for study	18785-6	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology comparison study-date and time	18779-9	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology comparison study observation	18834-2	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim

Radiology-study observation	18782-3	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology-impression	19005-8	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim
Radiology study-recommendation (narrative)	18783-1	18805-2	Include all data of the selected type that represents observations made six months or fewer before starting date of service for the claim

REIMBURSEMENT INFORMATION:

Reimbursement for computed tomography (72125 – 72133, 76380) performed on the same anatomical area is limited to two (2) computed tomography (72125 – 72133, 76380) within a 6-month period. Computed tomography (72125 – 72133, 76380) in excess of two (2) computed tomography (72125 – 72133, 76380) within a 6-month period are subject to medical review of documentation to support medical necessity. Documentation should include radiology reason for study, radiology comparison study-date and time, radiology comparison study observation, radiology impression, and radiology study recommendation.

Reimbursement for computed tomography (72125 – 72133, 76380) for an oncologic condition undergoing active treatment or active treatment completed within the previous 12 months on the same anatomical area is limited to four (4) computed tomography (72125 – 72133, 76380) within a 12-month period. Computed tomography (72125 – 72133, 76380) for an oncologic condition in excess of four (4) computed tomography (72125 – 72133, 76380) within a 12-month period are subject to medical review of documentation to support medical necessity. Documentation should include radiology reason for study, radiology comparison study-date and time, radiology comparison study observation, radiology impression, and radiology study recommendation.

Re-imaging or additional imaging of the spine (cervical, thoracic, lumbar) due to poor contrast enhanced exam or technically limited exam is the responsibility of the imaging provider.

PROGRAM EXCEPTIONS:

Federal Employee Plan (FEP): Follow FEP guidelines.

Medicare Advantage products:

No Local Coverage Determination (LCD) was found at the time of the last guideline reviewed date.

The following National Coverage Determination (NCD) was reviewed on the last guideline reviewed date: Computed Tomography, (220.1) located at cms.gov

DEFINITIONS:

Acute: having a short and relatively severe course.

Arnold Chiari syndrome (Chiari malformations): herniation of the cerebellar tonsils and vermis through the foramen magnum into the spinal canal. It is always associated with lumbosacral myelomeningocele, and hydrocephalus and mental defects are common.

Chronic: persisting over a long period of time.

Neoplasm: any new and abnormal growth; specifically a new growth of tissue in which the growth is uncontrolled and progressive.

Radiculopathy: disease of the nerve roots.

Spondylolysis: dissolution of a vertebra; a condition marked by platyspondylia, aplasia of the vertebral arch, and separation of the pars interarticularis.

Syringomyelia: a chronic progressive disease of the spinal cord associated with sensory disturbances, muscle atrophy, and spasticity.

Syrinx: a pathological cavity in the brain or spinal cord especially in syringomyelia.

Tethered cord: a congenital anomaly resulting from defective closure of the neural tube; the conus medullaris is abnormally low and is tethered by one or more forms of intradural abnormality such as a short, thickened filum terminale, fibrous bands or adhesions, or an intraspinal lipoma.

RELATED GUIDELINES:

Computed Tomography to Detect Coronary Artery Calcification, 04-70450-02

Computed Tomographic Angiography (CTA), 04-70450-03

Computerized Axial Tomography (CT), Head/Brain 04-70450-18

Computerized Axial Tomography (CT), Temporal Bone/Mastoid & Maxillofacial 04-70450-19

Computerized Axial Tomography (CT), of the Neck for Soft Tissue Evaluation 04-70450-20

Computerized Axial Tomography (CT), Thorax 04-70450-21

Computerized Axial Tomography (CT) Abdomen and Pelvis 04-70450-22

Computerized Axial Tomography (CT), Extremity (Upper & Lower) 04-70450-24

Whole Body Computed Tomography (CT) Scanning, 04-70450-25

OTHER:

Other name used to report computed tomography (CT):

CAT scanning

Pediatric Examinations

The use of CT in pediatric examinations requires assessment of the risks, benefits and use of the studies. The lowest possible radiation dose consistent with acceptable diagnostic image quality should be used in pediatric examinations. Radiation doses should be determined periodically based on a reasonable sample of pediatric examinations. Technical factors should be appropriate for the size and the age of the child and should be determined with consideration of parameters (e.g., characteristics of the imaging system, organs in the radiation field, lead shielding).

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COMMITTEE APPROVAL:

This Medical Coverage Guideline (MCG) was approved by the Florida Blue Medical Policy & Coverage Committee on 07/25/24.

GUIDELINE UPDATE INFORMATION:

09/15/09	New Medical Coverage Guideline.
01/01/10	Revised Florida Blue Radiology Management program exception section.
09/15/11	Scheduled review: no change in position statements. Added 76380. Revised limitation to two (2) within a 6-month period. Updated references.
10/01/11	Revision; formatting changes.
05/15/12	Revised and expanded position statement for: cervical spine; chronic or degenerative changes, trauma or acute injury (added abnormal EMG or nerve conduction study) and progression or worsening of symptoms and other (added neurological deficits and evaluation of immune system suppression. Revised and expanded position statement for: thoracic spine; added (fracture, back pain (new onset) and trauma or acute injury with criteria and other (added neurologic deficits and evaluation of immune system suppression) Revised and expanded position statement for: lumbar spine; tumor, cancer or evidence of metastasis-tumor evaluation (clarified covered indications) and other (added neurologic deficits and evaluation of immune system suppression. Deleted but is not limited to. Updated references.
10/15/13	Scheduled review; MCG subject changed to “Computed Tomography (CT) Spine (Cervical, Thoracic, Lumbar)”. Updated definitions, program exceptions and reference sections.
01/01/15	Scheduled review; added non-healing to fracture section (cervical, thoracic and lumbar), chronic, muscle weakness and abnormal reflexes to chronic or degenerative changes section (cervical and lumbar), exacerbation of chronic back pain, muscle weakness, abnormal reflexes, new extremity numbness or tingling and criteria to chronic or degenerative changes to thoracic spine section, when spine MRI is contraindicated to immune system suppression to other section (cervical, thoracic and lumbar), or new onset of abnormal sensory changes along a particular dermatome (nerve distribution) as documented on physical exam for neurologic deficits (other section: cervical, thoracic and lumbar), syrinx or syringomyelia to other section (cervical and thoracic), re-ordered fracture section (thoracic spine), and definition for syringomyelia and syrinx. Added limitation statement for an oncologic condition; limited to four (4) computed tomography within a 12-month period. Updated references.
03/15/18	Revision; revised position statement. MCG subject: Changed “Computerized” to “Computed” and removed “Axial”. Updated references.

11/15/19	Revised position statements for (cervical, thoracic, lumbar). Lumbar CT: added evaluation of chronic back pain. Updated references
04/15/20	Review/revision. Revised position statement and expanded indications and criteria for (cervical, thoracic, lumbar).
03/15/22	Review/revision. Revised position statement and expanded indications and criteria for (cervical, thoracic, lumbar). Updated references.
06/03/22	Revised combination studies for clarity.
07/01/22	Revision to Program Exceptions section.
09/30/23	Review: position statements and references updated.
08/15/24	Review; no change in position statement. Updated references.