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CLINICAL GUIDELINES

Diagnostic Imaging:

Non-Cancer Indications

Overview Statement

The purpose of these clinical guidelines is to assist healthcare professionals in selecting the medical service that may be appropriate and supported by evidence to improve patient outcomes. These clinical guidelines neither preempt the clinical judgment of trained professionals nor advise anyone on how to practice medicine. The healthcare professionals are responsible for all clinical decisions based on their assessment. These clinical guidelines do not provide authorization, certification, explanation of benefits, or guarantee of payment, nor do they substitute for, or constitute, medical advice.

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Unspecified Coding Notation

The following procedure codes can be applied to all policies for their specific modality.

CT Scan:

Computed tomography, limited or localized follow-up study	76380
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MRI Scan:

Magnetic resonance imaging (MRI), low-field	S8042
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Computed Tomography of the Abdomen

The use of Computerized Tomography (CT) for the abdomen may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of Abdominal aortic aneurysm (AAA) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Ultrasound is non-diagnostic; and the requested CT is for screening for patient who has at least one of the following risk factors:
 - Male
 - Age 65 or older
 - Smoker
 - Family history of AAA
 - Personal history of aneurysm
 - Diagnosis of hypertension
 - Diagnosis of atherosclerosis
 - o Follow-up known AAA and an ultrasound is non-diagnostic;
 - o Follow-up scan after a repair of AAA;
 - o Staging for endovascular procedure;
 - o Follow-up scan after an endovascular procedure.

- Acute abdominal pain, present for 7 days or less, when there is a suspected intra-abdominal abscess, infection, diverticulitis, or appendicitis and the patient's medical record demonstrates ANY of the following:
 - o Fever greater than 100 degrees Fahrenheit;

- Peritoneal signs (rebound tenderness);
- White Blood Cell count greater than 10,000.
- CT colonography (colonoscopy) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Incomplete optical colonoscopy;
 - Significant medical or surgical complications from previous optical colonoscopy;
 - Coagulopathy (clotted disorder);
 - Lifetime anticoagulation regimen with significant risk if discontinued.
- Evaluation for renal transplant may be reasonable and appropriate when the patient's medical record demonstrates:
 - CT is for pre-operative evaluation of the donor or recipient.
- Evaluation of an abdominal mass may be reasonable and appropriate when the patient's medical record demonstrates Any of the following:
 - Suspected mass in abdomen;
 - Palpable abdominal mass;
 - Indeterminate abdominal mass by ANY of the following imaging modalities:
 - CT;
 - MRI;
 - Nuclear medicine;
 - Ultrasound;
 - Plain radiography.
- Evaluation of abdominal trauma may be reasonable and appropriate when the patient's medical record demonstrates:
 - Abdominal pain with associated trauma
- Evaluation of known or suspected bowel obstruction may be reasonable and appropriate when the patient's medical record demonstrates:

- Small bowel obstruction is documented or suspected on plain radiography; and EITHER of the following:
 - The patient has abdominal pain and no prior abdominal surgery;
 - Nausea or vomiting.

- Evaluation of fever of unknown origin (FUO) may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - Fever greater than 101 degrees Fahrenheit at any point in the past 3 weeks;
 - Negative blood cultures;
 - Negative urine cultures;
 - Normal chest radiograph.

- Evaluation of chronic abdominal pain (non-infectious), lasting 7 days or more may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Nausea/vomiting;
 - Prior abdominal surgery;
 - Suspicion of hernia;
 - Inflammatory bowel disease;
 - Dilated bowel loops;
 - Prior imaging was non-diagnostic;
 - Constipation;
 - Food Poisoning.

- Evaluation of nausea and/or vomiting without abdominal pain when the patient's medical record demonstrates the following:
 - o Nausea and/or vomiting and prior imaging is either non diagnostic or positive for dilated bowel loops.
- Evaluation of known intra-abdominal abscess/infection may be reasonable and appropriate when the patient's medical record demonstrates and ANY of the following:
 - o New or enlarging abdominal or pelvic mass on exam;
 - o Persistent fever after treatment for 48 hours;
 - o Evaluation prior to removing drainage catheter;
 - o Worsening abdominal pain.
- Evaluation of hematuria in the absence of pain, may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o If patient's age is under 50 with no urinary tract infection; and EITHER of the following:
 - Gross hematuria or greater than 100 red blood cells per high-powered field;
 - 5-100 red blood cells per high-powered field on 2 separate urinalyses.
 - o If patient's age is 50 or over; and EITHER of the following:
 - Gross hematuria or greater than 100 red blood cells per high-powered field;
 - 5-100 red blood cells per high-powered field on 2 separate urinalyses.
- Evaluation for liver cirrhosis may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Liver Cirrhosis with portal hypertension; and EITHER of the following:
 - Elevated AFP (alpha-fetoprotein);

- Ultrasound demonstrates ascites.
- Evaluation to rule out kidney stone in the presence of flank pain with or without hematuria may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - CT scan of the abdomen/pelvis in the past 6 months was negative for calculus and patient has acute onset of flank, pelvic or groin pain;
 - Renal Ultrasound is negative for hydro nephrosis and patient has a history of current know or prior renal/ureteral calculus.
 - No prior abdominal CT in the past 12 months.
- Evaluation of aorta due for suspected dissection may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Chest pain; and ANY of the following:
 - Pulse deficit;
 - Displacement of aortic calcification on radiography;
 - Widened mediastinum on radiography;
 - New aortic regurgitation with no acute EKG changes.
- Evaluation for suspected pancreatitis may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Abdominal pain;
 - Elevated Amylase or Lipase.
- Evaluation for trans catheter aortic valve replacement (TAVR) may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Patient is undergoing evaluation for trans catheter aortic valve replacement;
 - Administration of contrast material contraindicated

The procedure codes that are associated with this policy are listed below.

CT Abdomen	CODES:
Computed tomography, abdomen; without contrast material	74150
Computed tomography, abdomen; with contrast material(s)	74160
Computed tomography, abdomen; without contrast material, followed by contrast material(s) and further sections	74170
Computed tomographic (CT) colonography, diagnostic, including image postprocessing; without contrast material	74261
Computed tomographic (CT) colonography, diagnostic, including image postprocessing; with contrast material(s) including non-contrast images, if performed	74262
Computed tomographic (CT) colonography, screening, including image postprocessing	74263

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Computed Tomography of the Abdomen and Pelvis

The use of CT for the abdomen and pelvis may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of Abdominal aortic aneurysm (AAA) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Ultrasound is non-diagnostic;
 - CT is for screening for patient who has at least ONE of the following risk factors:
 - Male;
 - Age 65 or older;
 - Smoker;
 - Family history of AAA;
 - Personal history of aneurysm;
 - Diagnosis of hypertension;
 - Diagnosis of atherosclerosis.
 - Follow-up known AAA; AND ultrasound is non-diagnostic;
 - Follow-up scan after a repair of AAA;
 - Staging for endovascular procedure;
 - Follow-up scan after an endovascular procedure.
- Evaluation of bone or joint pain may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Plain radiographs are non-diagnostic or suspicious for fracture; and EITHER of the following:
 - Suspected fracture;

- Bone or joint pain with associated trauma.
- CT colonography (colonoscopy) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Incomplete optical colonoscopy;
 - Significant medical or surgical complications from previous optical colonoscopy;
 - Coagulopathy (clotted disorder);
 - Lifetime anticoagulation regimen with significant risk if discontinued.
- Evaluation of abdominopelvic trauma when the patient's medical record demonstrates the following:
 - Abdominal or pelvic pain with associated trauma.
- Evaluation of known or suspected bowel obstruction may be reasonable and appropriate when the patient's medical record demonstrates:
 - Small bowel obstruction is documented or suspected on plain radiography; and EITHER of the following:
 - The patient has abdominal pain and no prior abdominal surgery; OR
 - Nausea or vomiting.
- Evaluation of fever of unknown origin (FUO) may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - Fever greater than 101 degrees Fahrenheit at any point in the past three (3) weeks;
 - Negative blood cultures;
 - Negative urine cultures;
 - Normal chest radiograph.

- Evaluation of a newly identified abdominal or pelvic mass may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Suspected mass in the abdomen or pelvis;
 - o There is an indeterminate mass in the abdomen or pelvis seen on ultrasound;
 - o There is an indeterminate mass in the abdomen or pelvis on MRI.
 - o There is a palpable mass in the abdomen or pelvis on physical examination;
 - o There is an indeterminate mass in the abdomen or pelvis seen on nuclear imaging;
 - o There is an indeterminate mass in the abdomen or pelvis seen on plain radiography.

- Evaluation of known intra-abdominal abscess/infection may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o New or enlarging abdominal or pelvic mass on exam;
 - o Persistent fever after treatment for 48 hours;
 - o Evaluation prior to removing drainage catheter;
 - o Worsening abdominal pain.

- Evaluation for liver cirrhosis may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Liver Cirrhosis with portal hypertension; and EITHER of the following:
 - Elevated AFP (alpha-fetoprotein);
 - Ultrasound demonstrates ascites.

- Evaluation of aorta due for suspected dissection may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Chest pain; and ANY of the following:
 - Pulse deficit;

- Displacement of aortic calcification on radiography;
 - Widened mediastinum on radiography;
 - New aortic regurgitation with no acute EKG changes.
-
- Evaluation of suspected pancreatitis may be reasonable and appropriate when the patient's medical record demonstrates the ALL following:
 - Abdominal pain;
 - Elevated Amylase or Lipase;
 - There is suspected involvement of the pelvis.

 - Evaluation for trans catheter aortic valve replacement (TAVR) may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Patient is undergoing evaluation for trans catheter aortic valve replacement;
 - Administration of contrast material contraindicated.

 - Evaluation of chronic abdominal pain (non-infectious), lasting 7 days or more may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Nausea/vomiting;
 - Prior abdominal surgery;
 - Suspicion of hernia;
 - Inflammatory bowel disease;
 - Dilated bowel loops;
 - Prior imaging was non-diagnostic;
 - Constipation;
 - Food Poisoning.

- Evaluation of nausea and/or vomiting without abdominal pain when the patient's medical record demonstrates the following:
 - o Nausea and/or vomiting and prior imaging is either non diagnostic or positive for dilated bowel loops.

- Acute abdominal pain, present for 7 days or less, when there is a suspected intra-abdominal abscess, infection, diverticulitis, or appendicitis and the patient's medical record demonstrates ANY of the following:
 - o Fever greater than 100 degrees Fahrenheit;
 - o Peritoneal signs (rebound tenderness);
 - o White Blood Cell count greater than 10,000.

- Evaluation of hematuria in the absence of pain may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o If patient's age is under 50 with no urinary tract infection; and EITHER of the following:
 - Gross hematuria or greater than 100 red blood cells per high-powered field;
 - 5-100 red blood cells per high-powered field on 2 separate urinalyses.
 - o If patient's age is 50 or over; and EITHER of the following:
 - Gross hematuria or greater than 100 red blood cells per high-powered field;
 - 5-100 red blood cells per high-powered field on 2 separate urinalyses.

- Evaluation to rule out kidney stone in the presence of flank pain with or without hematuria may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o CT scan of the abdomen/pelvis in the past 6 months was negative for calculus and patient has acute onset of flank, pelvic or groin pain;

- Renal Ultrasound is negative for hydro nephrosis and patient has a history of current know or prior renal/ureteral calculus.

The procedure codes that are associated with this policy are listed below.

CT Abdomen and Pelvis	CODES:
Computed tomography, abdomen and pelvis; without contrast material	74176
Computed tomography, abdomen and pelvis; with contrast material(s)	74177
Computed tomography, abdomen and pelvis; without contrast material in one or both body regions, followed by contrast material(s) and further sections in one or both body regions	74178

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Computed Tomography of the Brain

The use of CT for the brain may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of meningioma may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o MRI contraindication is present; and ANY of the following:
 - This request is for an annual follow-up study;
 - This request is for the first post-operative study.
- Evaluation for mental status changes may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Altered mental status over 50 years old; OR
 - o Altered mental status 50 years or under and MRI contraindication is present.
- Evaluation for head trauma may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Symptomatic recent closed head injury;
 - o Penetrating head injury;
 - o Skull fracture.
- Evaluation for increased intracranial pressure before lumbar puncture or myelogram may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Request is for planning prior to Myelogram or Lumbar Puncture (LP).

- Evaluation of intracranial shunt may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - New or acute headache;
 - Headache with increased frequency;
 - Headache with change in pattern;
 - Periodic evaluation of growing skull.

- Evaluation for focal neurological deficit (abnormal sensation/weakness) may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - MRI contraindication; and ANY of the following:
 - Vision loss with visual field defect (peripheral vision loss);
 - Facial numbness;
 - Diplopia (double vision);
 - Non-positional vertigo (dizziness);
 - Limb or hemiparesis/sensory deficit and optic neuritis;
 - Amenorrhea (no periods) and elevated prolactin level;
 - Aphasia (difficulty speaking, cannot find correct words).
 - Limb or hemiparesis/sensory deficit (weakness or numbness).

- Evaluation for follow-up of intracranial hemorrhage may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Recent surgery for intracranial hemorrhage.

- Evaluation of papilledema may be reasonable and appropriate may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - MRI contraindication and papilledema (swelling of the optic nerve).

- Evaluation of a congenital abnormality of the skull in pediatric patient may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Abnormal head shape with cranial deformity (craniosynostosis).
- Planning for stereotactic surgery may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Request is for planning prior to stereotactic surgery.
- Evaluation of known or suspected prolactinoma (pituitary tumor) may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o MRI contraindication is present; and EITHER of the following:
 - Elevated prolactin level;
 - Known prolactinoma being re-evaluated when it has been a year since the previous evaluation.
- Evaluation of seizures may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o MRI contraindication is present; and EITHER of the following:
 - New onset seizures;
 - Patient has a known seizure disorder and is having breakthrough seizures despite being compliant with prescribed medications.
- Evaluation for a suspected complication of a bone flap may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Previous craniotomy.

- Evaluation of a suspected intracranial infection may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o MRI contraindication is present; and EITHER of the following:
 - Fever; and ANY of the following:
 - Stiff neck;
 - Change in mental status;
 - Headache.
 - Patient is immunocompromised; and ANY of the following:
 - Change in mental status;
 - Headache.
- Evaluation of a suspected transient ischemic attack (TIA) or stroke may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o MRI contraindication is present; and ANY of the following:
 - Transient facial numbness;
 - Transient diplopia;
 - Transient vision loss;
 - Transient visual deficit;
 - Transient aphasia;
 - Transient hemiparesis/ sensory deficit.
- Evaluation for suspicion of trigeminal neuralgia may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o MRI contraindication is present; and EITHER of the following:
 - Facial pain;
 - Pain not related to sinus.

- Evaluation for headache (associated neurological problem) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Recent head trauma;
 - Worst headache of life;
 - New/acute headache; and ANY of the following:
 - MRI contraindication and non-positional vertigo (dizziness);
 - MRI contraindication and known brain mass;
 - MRI contraindication and primary brain malignancy;
 - MRI contraindications and secondary brain malignancy;
 - Patient is immunocompromised;
 - Nausea/vomiting;
 - Memory loss;
 - Patient has altered mental status;
 - Visual field defect (peripheral vision loss);
 - Aphasia (difficulty speaking, cannot find correct words);
 - Dysarthria (difficulty speaking, cannot say words);
 - Cranial nerve deficit/dysfunction;
 - Loss of coordination;
 - Known intracranial hemorrhage;
 - Unilateral sensorineural hearing loss on audiometry with a normal otoscopic exam.
 - Chronic headache with an MRI contraindication; and ANY of the following:
 - Increased frequency of headache which is refractory (non-responsive) to medical therapy;
 - Increased frequency of headache with a known brain mass;
 - Change in pattern of headache which is refractory to medical therapy;
 - Change in pattern of headache with a known brain mass.

The procedure codes that are associated with this policy are listed below.

CT Brain	CODES:
Computed tomography, head or brain; without contrast material	70450
Computed tomography, head or brain; with contrast material(s)	70460
Computed tomography, head or brain; without contrast material, followed by contrast materials(s) and further sections	70470

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Computed Tomography of the Chest

The use of CT of the chest may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of hemoptysis may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - o Hemoptysis;
 - o Suspected endobronchial lesion.

- Evaluation of a spontaneous pneumothorax may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Chest X-ray is non-diagnostic;
 - o This request is for a pre-operative evaluation.

- Evaluation of a known or suspected thoracic aneurysm may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Chest pain and a known thoracic aneurysm;
 - o Annual evaluation of a known thoracic aneurysm;
 - o Chest X-ray incompletely documenting or suggesting an aneurysm;
 - o Chest X-ray documenting an enlarged thoracic aorta;
 - o Echocardiogram documenting an aneurysm.

- Evaluation of suspected dissection of the thoracic aorta may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Chest pain; and ANY of the following:
 - New aortic regurgitation identified with no acute EKG changes;
 - Pulse Deficit;

- Displacement of aortic calcification on radiography;
 - Widened mediastinum on radiography.
-
- Evaluation of Myasthenia Gravis/Thymoma may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Evaluation for a Thymoma with a new or suspected diagnosis of Myasthenia Gravis;
 - Known diagnosis of Myasthenia Gravis without prior cross sectional imaging of the chest via CT or MRI.

 - Evaluation of a palpable chest wall mass may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Soft tissue or bony mass identified on physical exam.

 - Pre-planning for cardiac ablation may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Assessment of the coronary or pulmonary venous anatomy is required prior to performing cardiac ablation for atrial fibrillation.

 - Evaluation for suspected acute pulmonary embolism (PE) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Shortness of breath; and ANY of the following:
 - Radiography is non-diagnostic;
 - Deep venous ultrasound is positive for thrombosis;
 - Lung Scan (VQ Scan) is either indeterminate or illustrates a moderate probability of a PE;
 - Patient has had recent surgery;
 - Previous history of a PE or deep vein thrombosis (DVT);
 - Patient has had a recent immobilization for a day or longer;

- Hemoptysis;
 - Positive D-dimer;
 - Known cancer diagnosis.
 - Tachycardia; and ANY of the following:
 - Radiography is non-diagnostic;
 - Deep venous ultrasound is positive for thrombosis;
 - Lung Scan (VQ Scan) is either indeterminate or illustrates a moderate probability of a PE;
 - Patient has had recent surgery;
 - Previous history of a PE or deep vein thrombosis (DVT);
 - Patient has had a recent immobilization for a day or longer;
 - Hemoptysis;
 - Positive D-dimer;
 - Known cancer diagnosis.
 - Chest Pain; and ANY of the following:
 - is non-diagnostic;
 - Radiography Deep venous ultrasound is positive for thrombosis;
 - Lung Scan (VQ Scan) is either indeterminate or illustrates a moderate probability of a PE;
 - Patient has had recent surgery;
 - Previous history of a PE or deep vein thrombosis (DVT);
 - Patient has had a recent immobilization for a day or longer;
 - Hemoptysis;
 - Positive D-dimer;
 - Known cancer diagnosis.
- Evaluation of suspected chronic pulmonary embolism may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
- Unexplained pulmonary hypertension;

- Previous Imaging is negative for pulmonary embolism.
- Evaluation of a known or suspected hilar or mediastinal mass may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Chest X-ray positive for a hilar or mediastinal mass;
 - Vocal cord paralysis;
 - Horner's syndrome (dilated pupils);
 - New diagnosis of Myasthenia Gravis.
- Evaluation for trans catheter aortic valve replacement (TAVR) may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - Patient is undergoing evaluation for trans catheter aortic valve replacement;
 - Administration of contrast material contraindicated.
- General lung evaluation may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Chronic cough which has not responded to three (3) months of therapy;
 - Chest X-ray documents persistent atelectasis after four (4) weeks;
 - Chest X-ray documents pneumonia which has not completely cleared for more than eight (8) weeks;
 - Chest X-ray documents either definitive or suspected cavitation;
 - The patient has a new non-cardiogenic pleural effusion;
 - There is suspected disease remaining/recurrence post chemotherapy or surgical complication.
 - Shortness of breath; and EITHER of the following:
 - Chest X-ray is non-diagnostic and patient has had a negative cardiac work-up;

- Chest X-ray is positive or suspicious for interstitial disease

The procedure codes that are associated with this policy are listed below.

CT Chest	CODES:
Computed tomography, thorax; without contrast material	71250
Computed tomography, thorax; with contrast material(s)	71260
Computed tomography, thorax; without contrast material, followed by contrast materials(s) and further sections	71270

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Computed Tomography of an Extremity

The use of CT for an extremity may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation for leg length evaluation may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Suspected leg length discrepancy
- Pre-operative planning for joint replacement may be reasonable and appropriate when the following is found or documented:
 - Joint replacement surgery is planned.
- Evaluation of a suspected non-union fracture may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Radiography exam is non-diagnostic; and EITHER of the following:
 - Pain is present at the site of fracture;
 - Pain is present and there is motion at the site of fracture.
- Evaluation of suspected or known fracture may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Trauma to the extremity; and EITHER of the following:
 - Non-diagnostic radiography;
 - Pre-operative staging.

- Evaluation of suspected osteomyelitis may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Radiography is non-diagnostic and there is a MRI contraindication present; and EITHER of the following:
 - Patient is diagnosed with diabetes mellitus with a fever; and EITHER of the following:
 - Ulceration at the site to be scanned;
 - Positive blood cultures.
 - Pain is present at the site of suspicion; and EITHER of the following:
 - Ulceration at the site to be scanned;
 - Positive blood cultures.
- Evaluation of a suspected talonavicular/calcaneal coalition may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - Radiography is non-diagnostic;
 - MRI is contraindicated;
 - Pain.

The procedure codes that are associated with this policy are listed below.

CT Extremity	CODES:
Computed tomography, upper extremity; without contrast material	73200
Computed tomography, upper extremity; with contrast material(s)	73201
Computed tomography, upper extremity; without contrast material, followed by contrast material(s) and further sections	73202
Computed tomography, lower extremity; without contrast material	73700
Computed tomography, lower extremity; with contrast material(s)	73701
Computed tomography, lower extremity; without contrast material, followed by contrast material(s) and further sections	73702

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Computed Tomography: Maxillofacial

The use of CT for maxillofacial may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation following facial trauma may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Recent facial trauma.

The procedure codes that are associated with this policy are listed below.

CT Maxillofacial	CODES:
Computed tomography, maxillofacial area; without contrast material	70486
Computed tomography, maxillofacial area; with contrast material(s)	70487
Computed tomography, maxillofacial area; without contrast material, followed by contrast material(s) and further sections	70488

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Computed Tomography of the Maxillofacial/Sinus

The use of CT for the maxillofacial/ sinus may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Planning for dental implants may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Request is for planned dental implants.

- Evaluation of sinus disease or infection may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Pre-operative planning or decision making for sinus surgery;
 - No CT of the maxillofacial sinuses in the last twelve (12) months; and ANY of the following:
 - Loss of taste or smell;
 - Headache and purulent nasal discharge with no improvement after four (4) weeks of antibiotic therapy;
 - Headache and sinus pain with no improvement after four (4) weeks of conservative therapy (nasal spray, steroids, nasal irrigation, etc.);
 - Headache and sinus pain with purulent nasal discharge and facial cellulitis;
 - Headache and sinus pain with purulent nasal discharge and orbital infection;
 - Sinus pain and purulent nasal discharge with no improvement after four (4) weeks of antibiotic therapy;
 - Chronic sinusitis or mastoiditis with rapid progression of symptoms;

- Diagnosis of Cystic Fibrosis;
 - Suspicion of malignancy;
 - Patient has an immunodeficiency, which puts them at a high risk of invasive fungal sinusitis.
-
- Evaluation following facial trauma may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Recent facial trauma.

 - Evaluation of a salivary gland mass may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Non-painful mass;
 - Persistent painful mass after 10 days of antibiotic therapy.

The procedure codes that are associated with this policy are listed below.

CT Maxillofacial Sinus	CODES:
Computed tomography, maxillofacial area; without contrast material	70486
Computed tomography, maxillofacial area; with contrast material(s)	70487
Computed tomography, maxillofacial area; without contrast material, followed by contrast material(s) and further sections	70488

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Computed Tomography of Neck (Soft Tissue)

The use of CT for neck (soft tissue) may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of known neck mass may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Mass is non-painful and non-mobile;
 - Mass is not smaller after four (4) weeks.
- Evaluation of a salivary gland mass may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Non-painful mass;
 - Persistent painful mass after 10 days of antibiotic therapy.
- Evaluation of a suspected abscess may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Neck pain;
 - Fever

The procedure codes that are associated with this policy are listed below.

CT Neck-Soft Tissue	CODES:
Computed tomography, soft tissue neck; without contrast material	70490
Computed tomography, soft tissue neck; with contrast material(s)	70491
Computed tomography, soft tissue neck; without contrast material followed by contrast material(s) and further sections	70492

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Computed Tomography of Orbits/Ear

The use of CT for orbits/ear may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of suspected optic nerve pathology may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Normal glaucoma test;
 - o Unilateral vision loss;
 - o Normal fundusoscopic exam;
 - o MRI is contraindicated.
- Evaluation of a suspected orbital infection where orbital pain is present may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Fever;
 - o Facial cellulitis.
- Evaluation of a suspected or known orbital mass may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o MRI is contraindicated; and ANY of the following:
 - Unilateral proptosis;
 - Mass identified on physical exam;
 - Mass identified on other imaging study.

- Evaluation of vertigo, tinnitus, or hearing loss may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Known or suspected Cholesteatoma;
 - Conductive hearing loss;
 - Pre-assessment for cochlear implant in a member with hearing loss;
 - MRI is contraindicated; and ANY of the following:
 - Vertigo with loss of coordination;
 - Vertigo with diplopia (double vision);
 - Vertigo with headache;
 - Vertigo with dysarthria (difficulty speaking, cannot say words);
 - Unilateral tinnitus;
 - Unilateral sensorineural hearing loss demonstrated on brainstem auditory evoked response (BAER) testing.

The procedure codes that are associated with this policy are listed below.

CT Orbit, Ear, Sella	CODES:
Computed tomography, orbit, sella, or posterior fossa or outer, middle, or inner ear; without contrast material	70480
Computed tomography, orbit, sella, or posterior fossa or outer, middle, or inner ear; with contrast material(s)	70481
Computed tomography, orbit, sella, or posterior fossa or outer, middle, or inner ear; without contrast material, followed by contrast materials(s) and further sections	70482

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Computed Tomography of the Pelvis

The use of CT for the pelvis may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of Abdominal aortic aneurysm (AAA) may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - o Ultrasound is non-diagnostic;
 - o CT is for screening for patient who has at least ONE of the following risk factors:
 - Male
 - Age 65 or older
 - Smoker
 - Family history of AAA
 - Personal history of aneurysm
 - Diagnosis of hypertension
 - Diagnosis of atherosclerosis.
- Evaluation of bone or joint pain may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Plain radiographs are non-diagnostic or suspicious for fracture; and EITHER of the following:
 - Suspected fracture;
 - Bone or joint pain with associated trauma.
- CT colonography (colonoscopy) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Incomplete optical colonoscopy;
 - o Significant medical or surgical complications from previous optical colonoscopy;

- Coagulopathy (clotted disorder);
- Lifetime anticoagulation regimen with significant risk if discontinued.

- Evaluation for renal transplant may be reasonable and appropriate when the patient's medical record demonstrates:
 - CT is for pre-operative evaluation of the donor or recipient.

- Evaluation of pelvic trauma when the patient's medical record demonstrates the following:
 - Pelvic pain with associated trauma.

- Evaluation of known or suspected bowel obstruction may be reasonable and appropriate when the patient's medical record demonstrates:
 - Small bowel obstruction is documented or suspected on plain radiography; and EITHER of the following:
 - The patient has pelvic pain and no prior abdominal surgery;
 - Nausea or vomiting.

- Evaluation of chronic pelvic pain (non-infectious), lasting 7 days or more may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Nausea/vomiting;
 - Prior pelvic surgery;
 - Suspicion of hernia;
 - Inflammatory bowel disease;
 - Dilated bowel loops;
 - Prior imaging was non-diagnostic;
 - Constipation;
 - Food Poisoning.

- Evaluation of nausea and/or vomiting without pelvic pain when the patient's medical record demonstrates the following:
 - o Nausea and/or vomiting and prior imaging is either non diagnostic or positive for dilated bowel loops.

- Evaluation of pelvic mass may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o For male patients and ANY of the following:
 - Normal or non-diagnostic ultrasound with a palpable pelvic mass;
 - Normal or non-diagnostic ultrasound with an indeterminate pelvic mass illustrated on nuclear medicine;
 - Normal or non-diagnostic ultrasound with an indeterminate pelvic mass illustrated on plain radiography;
 - Indeterminate pelvic mass illustrated on ultrasound;
 - Indeterminate pelvic mass illustrated on MRI.
 - o For female patients and ANY of the following:
 - Normal ultrasound of female genitalia with a palpable pelvic mass;
 - Normal ultrasound of female genitalia with an indeterminate pelvic mass illustrated on nuclear medicine;
 - Normal ultrasound of female genitalia with an indeterminate pelvic mass illustrated on plain radiography;
 - Indeterminate pelvic mass illustrated on MRI;
 - Indeterminate non-gynecological pelvic mass illustrated on ultrasound.

- Follow-up of known intra-pelvic abscess/infection may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o New or enlarging pelvic mass on exam;
 - o Persistent fever after treatment for 48 hours;

- Evaluation prior to removing drainage catheter;
- Worsening pelvic pain.
- Evaluation of hematuria in the absence of pain may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - If patient's age is under 50 with no urinary tract infection; and EITHER of the following:
 - Gross hematuria or greater than 100 red blood cells per high-powered field;
 - 5-100 red blood cells per high-powered field on two (2) separate urinalyses.
 - If patient's age is 50 or over; and EITHER of the following:
 - Gross hematuria or greater than 100 red blood cells per high-powered field;
 - 5-100 red blood cells per high-powered field on two (2) separate urinalyses.
- Evaluation to rule out kidney stone in the presence of flank pain with or without hematuria may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - CT scan of the abdomen/pelvis in the past 6 months was negative for calculus and patient has acute onset of flank, pelvic or groin pain;
 - Renal Ultrasound is negative for hydro nephrosis and patient has a history of current know or prior renal/ureteral calculus.
- Evaluation of aorta due for suspected dissection may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Chest pain; and ANY of the following:
 - Pulse deficit;

- Displacement of aortic calcification on radiography;
 - Widened mediastinum on radiography;
 - New aortic regurgitation with no acute EKG changes.
-
- Acute pelvic pain, present for seven (7) days or less, when there is a suspected intra-abdominal abscess, infection, diverticulitis, or appendicitis and the patient's medical record demonstrates ANY of the following:
 - Fever greater than 100 degrees Fahrenheit;
 - Peritoneal signs (rebound tenderness);
 - White Blood Cell count greater than 10,000.

 - Evaluation for trans catheter aortic valve replacement (TAVR) may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Patient is undergoing evaluation for trans catheter aortic valve replacement;
 - Administration of contrast material contraindicated.

The procedure codes that are associated with this policy are listed below.

CT Pelvis	CODES:
Computed tomography, pelvis; without contrast material	72192
Computed tomography, pelvis; with contrast material(s)	72193
Computed tomography, pelvis; without contrast material, followed by contrast material(s) and further sections	72194

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Computed Tomography of the Cervical Spine

The use of CT for the cervical spine may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Preparation for a Myelogram, Discogram, Kyphoplasty, Vertebroplasty to the cervical spine may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following is planned:
 - o Performed with a Myelogram;
 - o Performed with a Discogram;
 - o Performed with a Kyphoplasty;
 - o Performed with a Vertebroplasty.
- Post-operative evaluation of cervical spine may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Post-operative hardware evaluation;
 - o Recurrent symptomatology following surgery.
- Evaluation of cervical myelopathy, cord compression or tumor may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o MRI contraindication; and ANY of the following:
 - Radiculopathy to both upper extremities, with a severe motor or sensory deficit found on physical exam;
 - Known or questionable tumor or destructive process present;
 - Known malignancy with cervical pain.

- Pre-operative evaluation of scoliosis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Scoliosis identified on a physical exam;
 - Evidence of scoliosis on a non-CT image.

- Evaluation of a known or suspected cervical spine bone tumor may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Suspected cervical spine or spinal cord tumor; and ALL of the following:
 - MRI contraindication;
 - Non-diagnostic radiography;
 - Cervical spine pain;
 - Bone scan positive at site of suspicion.
 - Suspected cervical spine or spinal cord tumor; and ALL of the following:
 - MRI contraindication;
 - Non-diagnostic radiography;
 - Cervical spine pain;
 - Bone scan normal at site of suspicion.
 - Anti-inflammatory medications were trialed for four (4) weeks without improvement;
 - Diagnosis of Multiple Myeloma OR Breast Cancer
 - History of trauma to the cervical spine.

- Evaluation of suspected or known fracture may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Follow-up to a known cervical spine fracture;
 - Recent trauma to the cervical spine; and ANY of the following:

- Suspected or known unstable cervical fracture on radiography;
 - Lower cervical spine pain and radiographs unable to visualize lower cervical spine;
 - No CT of the cervical spine since trauma occurred;
 - Stable cervical spine fracture on radiography, MRI contraindicated and neurological deficit related to site of trauma.
- Evaluation for infection may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - MRI contraindication;
 - Fever;
 - Neck pain.
- Evaluation of cervical radiculopathy may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - MRI contraindication, at least one arm affected and a motor deficit found on physical exam;
 - MRI contraindication, at least one arm affected and history of severe radiculopathy;
 - MRI contraindication, at least one arm affected, history of radiculopathy, and EITHER:
 - Sensory deficit
 - Motor deficit
 - No CT in the past 6 months, and surgery has been scheduled.

The procedure codes that are associated with this policy are listed below.

CT Cervical Spine	CODES:
Computed tomography, cervical spine; without contrast material	72125
Computed tomography, cervical spine; with contrast material	72126
Computed tomography, cervical spine; without contrast material, followed by contrast material(s) and further sections	72127

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Computed Tomography of the Lumbar Spine

The use of CT for the lumbar spine may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of infection may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Lumbar back pain;
 - o Fever;
 - o MRI contraindication.
- Preparation for a Myelogram, Discogram, Kyphoplasty, Vertebroplasty to the lumbar spine may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following is planned:
 - o Performed with a Myelogram;
 - o Performed with a Discogram;
 - o Performed with a Kyphoplasty;
 - o Performed with a Vertebroplasty.
- Evaluation of lumbar myelopathy, cord compression or tumor may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o MRI contraindication with bowel incontinence, decreased rectal sphincter tone and EITHER:
 - Unspecified sensory deficit
 - Unspecified motor deficit

- MRI contraindication with abnormal bladder control (without urological cause) and EITHER:
 - Unspecified sensory deficit
 - Unspecified motor deficit
- MRI contraindication, lumbar back pain, and ANY of the following:
 - Bowel incontinence
 - Abnormal bladder control (without urological cause)
 - Malignancy
 - Known or questionable tumor or destructive process
 - Radiculopathy to both legs, and EITHER
 - Unspecified sensory deficit
 - Unspecified motor deficit
- Evaluation of lower back pain may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - MRI contraindication;
 - Treatment with physical therapy without improvement;
 - Treatment with anti-inflammatory, analgesic or muscle relaxant for six (6) weeks without improvement;
 - No prior CT of the lumbar spine for same symptoms in past 4 months.
- Post-operative evaluation may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Post-operative hardware evaluation;
 - Recurrent symptomatology after surgery.
- Pre-operative evaluation of scoliosis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Scoliosis identified on a physical exam;

- Evidence of scoliosis on a non-CT image.
- Evaluation of spondylolysis may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Suspected or known spondylolysis.
- Evaluation of a known or suspected bone tumor may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Suspected lumbar spine or spinal cord tumor; and ALL of the following:
 - MRI contraindication;
 - Non-diagnostic radiography;
 - Lumbar spine pain;
 - Bone scan positive at site of suspicion.
 - Suspected lumbar spine or spinal cord tumor; and ALL of the following:
 - MRI contraindication;
 - Non-diagnostic radiography;
 - Lumbar spine pain;
 - Bone scan normal at site of suspicion;
 - Anti-inflammatory medications were trialed for four (4) weeks without improvement;
 - Diagnosis of Multiple Myeloma;
 - Diagnosis of Breast Cancer.
- Evaluation of suspected or known fracture may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Follow-up to a known lumbar spine fracture;
 - Recent trauma to the lumbar spine; and ANY of the following:
 - Suspected or known unstable lumbar fracture on radiography;
 - No CT of the lumbar spine since trauma occurred;

- Stable lumbar spine fracture on radiography, MRI contraindicated and neurological deficit related to site of trauma.

The procedure codes that are associated with this policy are listed below.

CT Lumbar Spine	CODES:
Computed tomography, lumbar spine; without contrast material	72131
Computed tomography, lumbar spine; with contrast material	72132
Computed tomography, lumbar spine; without contrast material, followed by contrast material(s) and further sections	72133

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Computed Tomography of the Thoracic Spine

The use of CT for the thoracic spine may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of infection may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Thoracic spine pain;
 - o Fever;
 - o MRI contraindication.

- Preparation for a Myelogram, Discogram, Kyphoplasty, Vertebroplasty to the thoracic spine may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following is planned:
 - o Performed with a Myelogram;
 - o Performed with a Discogram;
 - o Performed with a Kyphoplasty;
 - o Performed with a Vertebroplasty

- Evaluation of thoracic myelopathy, cord compression or tumor may be reasonable and appropriate when the patient's medical record demonstrates MRI contraindication and thoracic pain with ANY of the following:
 - o Malignancy
 - o Known or questionable destructive process
 - o Both legs affected, trunk radiculopathy and EITHER

- Unspecified motor deficit (e.g., weakness, abnormal EMG) found on exam;
 - Unspecified sensory deficit (e.g., numbness, tingling) found on exam.
- Both legs affected, lower extremity radiculopathy and EITHER
 - Unspecified motor deficit (e.g., weakness, abnormal EMG) found on exam;
 - Unspecified sensory deficit (e.g., numbness, tingling) found on exam.
- Evaluation of thoracic radiculopathy may be reasonable and appropriate when the patient's medical record demonstrates an MRI contraindication, no CT of the thoracic spine for the same symptoms in the past 4 months, thoracic back pain and ANY of the following:
 - Trunk radiculopathy (numbness, tingling, loss of strength);
 - Sensory deficit (e.g., numbness, tingling) found on exam;
 - Motor deficit (e.g., weakness, abnormal EMG) found on exam;
 - Pre procedural evaluation for epidural steroid injection or scheduled surgery.
- Post-operative evaluation may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Post-operative hardware evaluation;
 - Recurrent symptomatology after surgery.
- Pre-operative evaluation of scoliosis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Scoliosis identified on a physical exam;
 - Evidence of scoliosis on a non-CT image.
- Evaluation of a known or suspected thoracic bone tumor may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:

- Suspected thoracic spine or spinal cord tumor; and ALL of the following:
 - MRI contraindication;
 - Non-diagnostic radiography;
 - Thoracic spine pain;
 - Bone scan positive at site of suspicion.
- Suspected thoracic spine or spinal cord tumor; and ALL of the following:
 - MRI contraindication;
 - Non-diagnostic radiography;
 - Thoracic spine pain;
 - Bone scan normal at site of suspicion.
 - Anti-inflammatory medications were trialed for four (4) weeks without improvement;
 - Diagnosis of Multiple Myeloma OR Breast Cancer;
 - MRI contraindicated.
- Evaluation of suspected or known fracture may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Follow-up to a known thoracic spine fracture;
 - Recent trauma to the thoracic spine; and ANY of the following:
 - Suspected or known unstable thoracic fracture on radiography;
 - No CT of the thoracic spine since trauma occurred;
 - Stable thoracic spine fracture on radiography, MRI contraindicated and neurological deficit related to site of trauma.

The procedure codes that are associated with this policy are listed below.

CT Thoracic Spine	CODES:
Computed tomography, thoracic spine; without contrast material	72128
Computed tomography, thoracic spine; with contrast material	72129
Computed tomography, thoracic spine; without contrast material, followed by contrast material(s) and further sections	72130

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Computed Tomography: Angiography of the Abdomen

The use of Computed Tomography: Angiography (CTA) for the abdomen may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of Abdominal aortic aneurysm (AAA) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Ultrasound is non-diagnostic and CTA is for screening for patient who has at least one of the following risk factors:
 - Male;
 - Age 65 or older;
 - Smoker;
 - Family history of AAA;
 - Personal history of aneurysm;
 - Diagnosis of hypertension;
 - Diagnosis of atherosclerosis.
 - Follow-up known AAA and an ultrasound is non-diagnostic;
 - Follow-up scan after a repair of AAA;
 - Staging for endovascular procedure;
 - Follow-up scan after an endovascular procedure.
- Evaluation for renal transplant may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - CTA is for pre-operative evaluation of the donor or recipient.

- Evaluation for renal artery stenosis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Uncontrolled hypertension;
 - o Malignant hypertension.
- Evaluation for perforator flap may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Patient is undergoing evaluation for flap reconstruction.
- Evaluation for lower extremity arterial stenosis may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Patient candidate for surgical/ interventional treatment;
 - o Decreased extremity pulses on physical exam;
 - o Symptoms of buttock, thigh or lower leg claudication; and EITHER of the following:
 - ABI of greater than 0.9;
 - History of diabetes mellitus.
- Evaluation of aorta due for suspected dissection may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o CTA or MRA of the chest is positive for thoracic aneurysm dissection.
- Evaluation of suspected mesenteric ischemia may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - o Abdominal pain with eating;
 - o Abnormal weight loss.
- Evaluation of a suspected or known occlusion or stenosis of a bypass graft may be reasonable and appropriate when the patient's medical record demonstrates the following:

- Duplex ultrasound confirms of is suspicious for a bypass graft abnormality.

The procedure codes that are associated with this policy are listed below.

CTA Abdomen	CODES:
Computed tomographic angiography, abdomen, with contrast material(s), including noncontrast images, if performed, and image postprocessing	74175
Computed tomographic angiography, abdominal aorta and bilateral iliofemoral lower extremity runoff, with contrast material(s), including noncontrast images, if performed, and image postprocessing	75635

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Computed Tomography: Angiography of the Abdomen and Pelvis

The use of Computed Tomography: Angiography (CTA) for the abdomen and pelvis may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of Abdominal aortic aneurysm (AAA) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Ultrasound is non-diagnostic and CTA is for screening for patient who has at least one of the following risk factors:
 - Male
 - Age 65 or older
 - Smoker
 - Family history of AAA
 - Personal history of aneurysm
 - Diagnosis of hypertension
 - Diagnosis of atherosclerosis
 - o Follow-up known AAA and an ultrasound is non-diagnostic;
 - o Follow-up scan after a repair of AAA;
 - o Staging for endovascular procedure;
 - o Follow-up scan after an endovascular procedure.

- Evaluation for renal transplant may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o CTA is for pre-operative evaluation of the donor or recipient.
- Evaluation for renal artery stenosis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Uncontrolled hypertension;
 - o Malignant hypertension.
- Evaluation for perforator flap may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Patient is undergoing evaluation for flap reconstruction.
- Evaluation for lower extremity arterial stenosis may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Patient candidate for surgical/ interventional treatment;
 - o Decreased extremity pulses on physical exam;
 - o Symptoms of buttock, thigh or lower leg claudication; and EITHER of the following:
 - ABI of greater than 0.9;
 - History of diabetes mellitus.
- Evaluation of aorta due for suspected dissection may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o CTA or MRA of the chest is positive for thoracic aneurysm dissection.
- Evaluation of suspected mesenteric ischemia may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - o Abdominal pain with eating;

- Abnormal weight loss.
- Evaluation of a suspected or known occlusion or stenosis of a bypass graft may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Duplex ultrasound confirms of is suspicious for a bypass graft abnormality.

The procedure codes that are associated with this policy are listed below.

CTA Abdomen and Pelvis

CODES:

Computed tomographic angiography, abdomen and pelvis, with contrast material(s), including noncontrast images, if performed, and image postprocessing

74174

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Computed Tomography: Angiography of the Brain

The use of CTA of the brain may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Follow-up of a known intracranial aneurysm may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o New acute headache;
 - o Change in headache pattern;
 - o Increased frequency in headache;
 - o Prior imaging study greater than six (6) months ago.
- Screening for a Dural arteriovenous fistula may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Pulsatile Tinnitus
- Screening for intracranial aneurysm may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o First degree relative with a history of a cerebral aneurysm;
 - o Polycystic renal disease;
 - o Multiple meningiomas;
 - o Exertional headache;
 - o MRI contraindication with an acute third nerve palsy affecting the pupil.

- Evaluation for an intracranial venous thrombus may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o MRI contraindication; and ANY of the following:
 - Papilledema
 - Extracranial mass adjacent to a venous sinus;
 - Fracture at the base or vertex of the skull;
 - Headache with a history of a hypercoagulable state.

- Evaluation for transient ischemic attack (TIA) or stroke may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o TIA or stroke suspected;
 - o Carotid or vertebrobasilar neurological defect.

The procedure codes that are associated with this policy are listed below.

CTA Brain/Head	CODES:
Computed tomographic angiography, head, with contrast material(s), including noncontrast images, if performed, and image postprocessing	70496

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Computed Tomography: Angiography of the Chest

The use of CTA of the chest may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of a known or suspected thoracic aneurysm may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Chest pain and a known thoracic aneurysm;
 - Annual evaluation of a known thoracic aneurysm;
 - Chest X-ray incompletely documenting or suggesting an aneurysm;
 - Chest X-ray documenting an enlarged thoracic aorta;
 - Echocardiogram documenting an aneurysm;
 - Annual screening for patient with diagnosis of collagen vascular disease (e.g., Marfan, Ehlers-Danlos, etc.).
- Evaluation of suspected dissection of the thoracic aorta may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Chest pain; and ANY of the following:
 - New aortic regurgitation identified with no acute EKG changes;
 - Pulse Deficit;
 - Displacement of aortic calcification on radiography;
 - Widened mediastinum on radiography.
- Pre-planning for cardiac procedures may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:

- Assessment of the coronary or pulmonary venous anatomy is required prior to performing cardiac ablation for atrial fibrillation;
 - Assessment of coronary or pulmonary venous anatomy prior to pacemaker placement;
 - Evaluation for suspicion of congenital anomaly of the coronary circulation;
 - Evaluation for trans catheter aortic valve replacement.
- Evaluation for suspected acute pulmonary embolism (PE) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
- Shortness of breath; and ANY of the following:
 - Radiography is non-diagnostic;
 - Deep venous ultrasound is positive for thrombosis;
 - Lung Scan (VQ Scan) is either indeterminate or illustrates a moderate probability of a PE;
 - Patient has had recent surgery;
 - Previous history of a PE or deep vein thrombosis (DVT);
 - Patient has had a recent immobilization for a day or longer;
 - Hemoptysis;
 - Positive D-dimer;
 - Known cancer diagnosis.
 - Tachycardia; and ANY of the following:
 - Radiography is non-diagnostic;
 - Deep venous ultrasound is positive for thrombosis;
 - Lung Scan (VQ Scan) is either indeterminate or illustrates a moderate probability of a PE;
 - Patient has had recent surgery;
 - Previous history of a PE or deep vein thrombosis (DVT);
 - Patient has had a recent immobilization for a day or longer;
 - Hemoptysis;

- Positive D-dimer;
 - Known cancer diagnosis.
- Chest Pain; and ANY of the following:
 - Radiography is non-diagnostic;
 - Deep venous ultrasound is positive for thrombosis;
 - Lung Scan (VQ Scan) is either indeterminate or illustrates a moderate probability of a PE;
 - Patient has had recent surgery;
 - Previous history of a PE or deep vein thrombosis (DVT);
 - Patient has had a recent immobilization for a day or longer;
 - Hemoptysis;
 - Positive D-dimer;
 - Known cancer diagnosis.
- Evaluation of suspected chronic pulmonary embolism may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Unexplained pulmonary hypertension;
 - Previous Imaging is negative for pulmonary embolism.
- Follow-up after pulmonary vein ablation procedure may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Evaluation for cardiac vessel stenosis after pulmonary vein ablation;
 - No similar study performed.

The procedure codes that are associated with this policy are listed below.

CTA Chest

CODES:

Computed tomographic angiography, chest (noncoronary), with contrast material(s), including noncontrast images, if performed, and image postprocessing

71275

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Computed Tomography: Angiography of the Extremity

The use of CTA of the extremity may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Preoperative evaluation for reconstructive or plastic surgery may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Planned reconstructive surgery with skin flap.

- Evaluation for lower extremity arterial stenosis may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - Patient candidate for surgical/ interventional treatment;
 - Decreased extremity pulses on physical exam;
 - Symptoms of buttock, thigh or lower leg claudication; and EITHER of the following:
 - ABI of greater than 0.9;
 - History of diabetes mellitus.

- Evaluation of a suspected or known occlusion or stenosis of a bypass graft may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Duplex ultrasound confirms of is suspicious for a bypass graft abnormality.

The procedure codes that are associated with this policy are listed below.

CTA Extremity	CODES:
Computed tomographic angiography, upper extremity, with contrast material(s), including noncontrast images, if performed, and image postprocessing	73206
Computed tomographic angiography, lower extremity, with contrast material(s), including noncontrast images, if performed, and image postprocessing	73706

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Computed Tomography: Angiography of the Neck

The use of CTA of the neck may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation for suspected carotid or vertebral artery dissection may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Trauma or history of chiropractic manipulation; and ANY of the following:
 - Diplopia;
 - Ataxia;
 - Aphasia;
 - Acute vision loss;
 - Limb hemiparesis or sensory deficit.
- Evaluation of known or suspected carotid stenosis may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Patient is an operative candidate and EITHER of the following:
 - Carotid duplex is non-diagnostic and a carotid bruit was found on exam;
 - Carotid duplex illustrates 50% of greater carotid stenosis.
- Evaluation for transient ischemic attack (TIA) or stroke may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o TIA or stroke suspected;
 - o Carotid or vertebrobasilar neurological defect.

The procedure codes that are associated with this policy are listed below.

CTA Neck

CODES:

Computed tomographic angiography, neck, with contrast material(s), including noncontrast images, if performed, and image postprocessing

70498

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Computed Tomography: Angiography of the Pelvis

The use of Computed Tomography: Angiography (CTA) for the pelvis may be appropriate and supported by evidence to improve patient outcomes for the following indications.\

- Evaluation of Abdominal aortic aneurysm (AAA) may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Ultrasound is non-diagnostic and CTA is for screening for patient who has at least one of the following risk factors:
 - Male;
 - Age 65 or older;
 - Smoker;
 - Family history of AAA;
 - Personal history of aneurysm;
 - o Diagnosis of hypertension;
 - Diagnosis of atherosclerosis.
 - o Follow-up known AAA and an ultrasound is non-diagnostic;
 - o Follow-up scan after a repair of AAA;
 - o Staging for endovascular procedure;
 - o Follow-up scan after an endovascular procedure.
- Evaluation for renal transplant may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o CTA is for pre-operative evaluation of the donor or recipient.

- Evaluation for renal artery stenosis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Uncontrolled hypertension;
 - Malignant hypertension.

- Evaluation for perforator flap may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Patient is undergoing evaluation for flap reconstruction.

- Evaluation for lower extremity arterial stenosis may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - Patient candidate for surgical/ interventional treatment;
 - Decreased extremity pulses on physical exam;
 - Symptoms of buttock, thigh or lower leg claudication; and EITHER of the following:
 - ABI of greater than 0.9;
 - History of diabetes mellitus.

- Evaluation of aorta due for suspected dissection may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - CTA or MRA of the chest is positive for thoracic aneurysm dissection.

- Evaluation of suspected mesenteric ischemia may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Abdominal pain with eating;
 - Abnormal weight loss.

- Evaluation of a suspected or known occlusion or stenosis of a bypass graft may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Duplex ultrasound confirms of is suspicious for a bypass graft abnormality.

The procedure codes that are associated with this policy are listed below.

CTA Pelvis

CODES:

Computed tomographic angiography, pelvis, with contrast material(s), including noncontrast images, if performed, and image postprocessing

72191

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Magnetic Resonance Imaging of the Abdomen

The use of Magnetic Resonance Imaging (MRI) of the abdomen may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of a known or suspected adrenal mass may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Elevated catecholamine;
 - o Elevated metanephrine;
 - o Indeterminate adrenal mass on CT.
- Evaluation of known or suspected pancreatic mass may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Indeterminate pancreatic mass on CT.
- Evaluation of known or suspected renal mass may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Indeterminate renal mass on CT.
- Fetal MRI indication will require additional medical necessity review.
- Evaluation of Hemosiderosis may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - o Hemosiderosis of the pancreas or the liver;
 - o CT of the abdomen was non-diagnostic.

- MR Enterography may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Evaluation for suspected inflammatory bowel disease;
 - o Pediatric patient currently diagnosed with indeterminate colitis and an exam is requested to differentiate between Crohn's Disease and ulcerative colitis.
 - o Patient with known Crohn's Disease requiring evaluation of response to treatment.

- Evaluation of known or suspected liver mass may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Liver mass greater than or equal one (1) centimeter identified via CT or Ultrasound; and EITHER of the following:
 - Diagnosis of Hepatitis B or C;
 - History of alcohol abuse.
 - o Diagnosis of Primary Sclerosing Cholangitis;
 - o Diagnosis of Choleodochal Cysts.

The procedure codes that are associated with this policy are listed below.

MRI Abdomen	CODES:
Magnetic resonance (eg, proton) imaging, abdomen; without contrast material(s)	74181
Magnetic resonance (eg, proton) imaging, abdomen; with contrast material(s)	74182
Magnetic resonance (eg, proton) imaging, abdomen; without contrast material(s), followed by with contrast material(s) and further sequences	74183
Magnetic resonance (eg, proton) imaging, fetal, including placental and maternal pelvic imaging when performed; single or first gestation	74712

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Magnetic Resonance Cholangiopancreatography (MRCP)

The use of MRI of the abdomen for MRCP protocol may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of a known biliary duct obstruction may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - o Ultrasound is indeterminate for etiology of the obstruction;
 - o Dilated biliary tree demonstrated on ultrasound or CT scan.
- Evaluation of a suspected biliary duct obstruction may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Biliary tree calculus;
 - o Suspected or known sclerosing cholangitis;
 - o Biliary tree anomaly, such as choledochal cyst;
- Evaluation of recurrent pancreatitis.

The procedure codes that are associated with this policy are listed below.

MRCP	CODES:
Magnetic resonance cholangiopancreatography (MRCP)	S8037

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Magnetic Resonance Imaging of the Brain

The use of MRI of the brain may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Surveillance of known meningioma may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o An annual follow-up study;
 - o The first post-operative scan.
- Surveillance of pituitary adenoma may be reasonable and appropriate when the request is for an annual follow-up study.
- Evaluation of mental status changes may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Diagnosis of dementia;
 - o Patient has not had a MRI of the brain in the past 6 months or has had a negative MRI of the brain in the past 6 months.
- Evaluation of a neurological abnormality may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Limb hemiparesis or sensory deficit and optic neuritis;
 - o Diplopia and a normal ophthalmological exam;
 - o Elevated prolactin level in the presence of amenorrhea;
 - o Ataxia;
 - o Aphasia;

- Loss of taste or smell.
- Evaluation of headache may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Chronic headache and ANY of the following:
 - Headache is refractory to medical therapy; and EITHER of the following:
 - Headache has increased in frequency;
 - Headache awakens the patient from sleep.
 - Headache has increased in frequency in the presence of a known brain mass;
 - Headache has changed its normal pattern in the presence of a known brain mass;
 - Patient has a history of migraine headaches;
 - New/acute headache and ANY of the following:
 - Headache is accompanied by non-positional vertigo;
 - Headache awakens the patient from sleep.
 - Patient is immunocompromised;
 - Patient has a known brain mass;
 - Patient has a known primary brain malignancy;
 - Patient has a known secondary brain malignancy.
 - Persistent headache in the presence of closed head trauma.
- Evaluation of seizure activity may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - New onset seizure activity;
 - Patient with known seizure disorder exhibits breakthrough seizures despite therapeutic anti-seizure medication levels/compliance with treatment regimen.
- Evaluation of vertigo, tinnitus and/or hearing loss may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:

- Non-positional vertigo; and ANY of the following:
 - New acute headache;
 - Dysarthria;
 - Ataxia;
 - Diplopia;
 - Unilateral hearing loss with tinnitus with normal otoscopic examination.
 - Unilateral sensorineural hearing loss demonstrated by Brainstem Auditory Evoked Response (BAER) testing;
 - Unilateral sensorineural hearing loss demonstrated;
 - Tinnitus with a normal otoscopic examination.
- Functional MRI of the brain may be reasonable and appropriate when the patient's medical record demonstrates the following:
- Pre-operative brain mapping; and EITHER of the following:
 - Evaluation to determine seizure focus;
 - Evaluation of brain tumor.
- Evaluation of known or suspected multiple sclerosis (MS) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
- Limb hemiparesis or sensory deficit;
 - Ataxia;
 - Current diagnosis of MS with worsening symptoms;
 - Visual disturbance;
 - Patient's last MRI of the brain was greater than six (6) months ago and they are currently undergoing treatment for MS with Tysabri.
- Evaluation of papilledema may be reasonable and appropriate when the patient's medical record demonstrates the following:
- Papilledema demonstrated on examination.

- Planning evaluation for stereotactic surgery may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Patient is currently scheduled to undergo stereotactic surgery.

- Evaluation of a suspected intracranial infection may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Patient is immunocompromised; and ANY of the following:
 - Chronic headache;
 - Change in mental status;
 - Photophobia.
 - Fever; and ANY of the following:
 - Photophobia;
 - Change in mental status;
 - New acute headache;
 - Stiff neck with no other source of infection located.

- Evaluation of a suspected pituitary tumor may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Elevated prolactin level;
 - Diagnosis of Cushing's syndrome;
 - Hyperthyroidism with a high thyroid stimulating hormone level (TSH);
 - Diagnosis of Acromegaly/Gigantism;
 - Hypogonadism with low luteinizing hormone level (LH) and a low follicular stimulating hormone level (FSH);
 - Patient who is less than or equal to 40 years of age with a serum testosterone level of less than 250ng/dL;
 - Patient who is between the ages of 40 and 70 years of age with a serum testosterone level of less than 200ng/dL;

- Patient who is greater than or equal to 70 years of age with a serum testosterone level of less than 150ng/dL;
 - Diagnosis of Hypopituitarism;
 - Diagnosis of Pituitary apoplexy;
 - Diagnosis Precocious puberty.
 - Abnormal sella or sellar mass suggestive of a pituitary tumor demonstrated on recent imaging requiring further evaluation.
-
- Evaluation of suspected transient ischemic attack (TIA) or stroke may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Transient facial numbness;
 - Transient diplopia;
 - Transient vision loss;
 - Transient visual deficit;
 - Transient aphasia;
 - Transient hemiparesis/sensory deficit.
-
- Evaluation of suspected trigeminal neuralgia may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Facial pain that is not related to a sinus condition.
-
- Pre-operative evaluation for cochlear implant placement.
-
- Evaluation of a ventricular shunt may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Shunt valve is resistant to reprogramming; and EITHER of the following:
 - New/acute headache is present;
 - Change in frequency, severity or pattern of headache is present.

The procedure codes that are associated with this policy are listed below.

MRI Brain	CODES:
Magnetic resonance (eg, proton) imaging, brain (including brain stem); without contrast material	70551
Magnetic resonance (eg, proton) imaging, brain (including brain stem); with contrast material	70552
Magnetic resonance (eg, proton) imaging, brain (including brain stem); without contrast material, followed by contrast material(s) and further sequences	70553
Magnetic resonance imaging, brain, functional MRI; including test selection and administration of repetitive body part movement and/or visual stimulation, not requiring physician or psychologist administration	70554
Magnetic resonance imaging, brain, functional MRI; including test selection and administration of repetitive body part movement and/or visual stimulation, requiring physician or psychologist administration of entire neurofunctional testing	70555

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Magnetic Resonance Imaging of the Breast

The use of MRI for the breast may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of a suspected implant rupture may be appropriate and supported by evidence to improve patient outcomes for the following indications.
 - Rupture is not apparent on Mammography but due to findings on physical exam an implant rupture is suspected.
- Evaluation of breast pain and/or nipple discharge may be appropriate and supported by evidence to improve patient outcomes for EITHER of the following indications.
 - Unilateral breast pain which does not correlate to the patient's menstrual cycle or in a patient who is post-menopausal; and ALL of the following:
 - Patient is equal to or older than 35 years of age;
 - No breast mass was identified on physical exam;
 - A diagnostic Mammogram has been performed demonstrating suspicion for malignancy.
 - Unilateral spontaneous breast discharge with or without blood is present; and ALL of the following:
 - An ultrasound of the breast has been performed;
 - A diagnostic Mammogram has been performed demonstrating a suspicion for malignancy.

The procedure codes that are associated with this policy are listed below.

MRI Breast	CODES:
Magnetic resonance imaging, breast, without contrast material; unilateral	77046
Magnetic resonance imaging, breast, without and with contrast material(s), including computer-aided detection (CAD real-time lesion detection, characterization and pharmacokinetic analysis), when performed; unilateral	77048
Magnetic resonance imaging with contrast, breast; unilateral	C8903
Magnetic resonance imaging without contrast followed by with contrast, breast; unilateral	C8905
Magnetic resonance imaging, breast, without contrast material; bilateral	77047
Magnetic resonance imaging, breast, without and with contrast material(s), including computer-aided detection (CAD real-time lesion detection, characterization and pharmacokinetic analysis), when performed; bilateral	77049
Magnetic resonance imaging with contrast, breast; bilateral	C8906
Magnetic resonance imaging without contrast followed by with contrast, breast; bilateral	C8908

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Magnetic Resonance Imaging of the Chest

The use of MRI of the chest may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of a palpable soft tissue mass found on physical examination.
- Evaluation of suspected brachial plexopathy or thoracic outlet syndrome may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Weakness in the upper extremity on physical examination;
 - o Decreased sensation to the upper extremity.
- Evaluation of suspected dissection of the thoracic aorta may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Chest pain; and ANY of the following:
 - A widened mediastinum;
 - Displacement of aortic calcification;
 - Pulse deficit on physical examination;
 - New aortic regurgitation noted with no acute electrocardiogram changes.
- Evaluation of a suspected hilar or mediastinal mass may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o CT of the chest is non-diagnostic;

- Patient has a new diagnosis of Myasthenia Gravis.
- Evaluation of a suspected iron overload may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Clinical suspicion of iron overload affecting the heart with no similar study having been performed in the past six (6) months.

The procedure codes that are associated with this policy are listed below.

MRI Chest	CODES:
Magnetic resonance (eg, proton) imaging, chest (eg, for evaluation of hilar and mediastinal lymphadenopathy); without contrast material(s)	71550
Magnetic resonance (eg, proton) imaging, chest (eg, for evaluation of hilar and mediastinal lymphadenopathy); with contrast material(s)	71551
Magnetic resonance (eg, proton) imaging, chest (eg, for evaluation of hilar and mediastinal lymphadenopathy); without contrast material(s), followed by contrast material(s) and further sequences	71552

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Magnetic Resonance Imaging of the Lower Extremities (Not Joint)

The use of MRI for the lower extremities (not joint) may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of a suspected or known fracture may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Trauma; and EITHER of the following:
 - Non-diagnostic radiographic study;
 - Plain films demonstrate a known fracture or are suspicious for fracture.
- Evaluation of suspected osteomyelitis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Pain at site of suspicion; and EITHER of the following:
 - Ulceration at site of suspicion;
 - Positive blood culture, elevated sedimentation rate or elevated C-reactive protein level.
 - o Diagnosis of diabetic peripheral neuropathy with ulceration at the site of suspicion.

The procedure codes that are associated with this policy are listed below.

MRI Extremity, Not a Joint	CODES:
Magnetic resonance (eg, proton) imaging, lower extremity other than joint; without contrast material(s)	73718
Magnetic resonance (eg, proton) imaging, lower extremity other than joint; with contrast material(s)	73719
Magnetic resonance (eg, proton) imaging, lower extremity other than joint; without contrast material(s), followed by contrast material(s) and further sequences	73720

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Magnetic Resonance Imaging of the Ankle/Foot

The use of MRI of the ankle/foot may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of an injury to the Achilles tendon may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Achilles tendon pain on physical examination; and EITHER of the following:
 - Acute ankle injury with weakness exhibited on plantar flexion;
 - Ankle injury which has not improved with anti-inflammatory medication and a change in activity level.
- Evaluation of avascular necrosis of the ankle may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Prior imaging was positive for avascular necrosis;
 - Prior imaging was questionable for avascular necrosis.
- Evaluation of osteochondritis dessicans of the ankle may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Prior imaging was positive for osteochondritis dessicans;
 - Prior imaging was questionable for osteochondritis dessicans.
- Evaluation of a peroneal tendon injury may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Trauma to the ankle with new acute pain;

- Weakness exhibited on eversion of the foot.
- Evaluation of a posterior tibial tendon injury may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Trauma to the ankle with new acute pain;
 - Weakness exhibited on inversion of the foot.
- Evaluation of a suspected septic joint may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Ankle pain; and ANY of the following:
 - Fever greater than 100 degrees;
 - White blood cell (WBC) count greater than 10,000.
- Evaluation of suspected osteomyelitis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Pain at site of suspicion; and EITHER of the following:
 - Ulceration at site of suspicion;
 - Positive blood culture, elevated sedimentation rate or elevated C-reactive protein level.
 - Diagnosis of diabetic peripheral neuropathy with ulceration at the site of suspicion.
- Evaluation of suspected plantar fascial rupture may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Heel pain;
 - No improvement despite activity level change and treatment with anti-inflammatory medications.

The procedure codes that are associated with this policy are listed below.

MRI Ankle/Foot	CODES:
Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material	73721
Magnetic resonance (eg, proton) imaging, any joint of lower extremity; with contrast material(s)	73722
Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material(s), followed by contrast material(s) and further sequences	73723

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Magnetic Resonance Imaging of the Hip

The use of MRI of the hip may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of avascular necrosis of the hip may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Prior imaging was positive for avascular necrosis;
 - o Prior imaging was questionable for avascular necrosis.
- Evaluation of a questionable hip fracture seen on CT scan may be reasonable and appropriate in the presence of an acute injury.
- Evaluation of suspected osteomyelitis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Pain at site of suspicion; and EITHER of the following:
 - Ulceration at site of suspicion;
 - Positive blood culture, elevated sedimentation rate or elevated C-reactive protein level.
 - o Diagnosis of diabetic peripheral neuropathy with ulceration at the site of suspicion.
- Evaluation of a suspected septic joint may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Hip pain; and EITHER of the following:
 - Fever greater than 100 degrees;

- White blood cell (WBC) count greater than 10,000.
- Evaluation of pain in the hip joint may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - Radiography is non-diagnostic;
 - No improvement despite activity level change and anti-inflammatory medications.

The procedure codes that are associated with this policy are listed below.

MRI Hip	CODES:
Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material	73721
Magnetic resonance (eg, proton) imaging, any joint of lower extremity; with contrast material(s)	73722
Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material(s), followed by contrast material(s) and further sequences	73723

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Magnetic Resonance Imaging of the Knee

The use of MRI of the knee may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of a known or suspected fracture of the knee may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Knee trauma; and ANY of the following:
 - Radiography is non-diagnostic;
 - Radiography is positive for a fracture or suspected fracture is demonstrated;
 - Joint effusion is present on physical examination.
- Evaluation of suspected osteomyelitis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Pain at site of suspicion; and EITHER of the following:
 - Ulceration at site of suspicion;
 - Positive blood culture, elevated sedimentation rate or elevated C-reactive protein level.
 - Diagnosis of diabetic peripheral neuropathy with ulceration at the site of suspicion.
- Evaluation of a suspected quadriceps tendon tear may be reasonable and appropriate when the patient's medical record demonstrates pain of the quadriceps tendon and weakness on knee extension.

- Evaluation of knee pain may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Pain present in the knee joint; and ANY of the following:
 - Clicking or locking of the knee joint;
 - Positive McMurray, Apley, Merke or Lachman's sign on physical examination;
 - Positive anterior or posterior drawer's test on physical examination;
 - Patient has had an MRI of the knee in the past six (6) months which did not demonstrate evidence of a tear but there is rapid progression of their symptoms;
 - Recent trauma to the knee with radiography that does not demonstrate a fracture;
 - Patient who is equal to or greater than 40 years of age, has failed treatment with anti-inflammatory medications and alteration in activity level and radiography does not demonstrate osteoarthritis or chondrocalcinosis;
 - Patient who is less than 40 years of age, has failed treatment with anti-inflammatory medications and alteration in activity level.
- Evaluation of the knee may be reasonable and appropriate when the patient's medical record demonstrates instability.

The procedure codes that are associated with this policy are listed below.

MRI Knee	CODES:
Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material	73721
Magnetic resonance (eg, proton) imaging, any joint of lower extremity; with contrast material(s)	73722
Magnetic resonance (eg, proton) imaging, any joint of lower extremity; without contrast material(s), followed by contrast material(s) and further sequences	73723

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Magnetic Resonance Imaging of the Neck (Soft Tissue)

The use of MRI of the neck (soft tissue) may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of neck mass may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Non-mobile and non-painful mass;
 - o Mass not smaller after 4 weeks.
- Evaluation of salivary gland mass may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Non-painful mass;
 - o Painful mass with continued pain after ten (10) days of antibiotics.
- Evaluation of an intra-oral, nasal pharyngeal, or laryngeal mass identified on visual examination may be reasonable and appropriate when the patient's medical record demonstrates a non-diagnostic CT scan.
- Evaluation of a suspected parathyroid tumor may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Elevated Parathyroid Hormone (PTH);
 - o Normal or inconclusive ultrasound of the neck;
 - o Normal or inconclusive sestamibi scan.

The procedure codes that are associated with this policy are listed below.

MRI Neck –Soft Tissue	CODES:
Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; without contrast material(s)	70540
Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; with contrast material(s)	70542
Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; without contrast material(s), followed by contrast material(s) and further sequences	70543

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Magnetic Resonance Imaging of the Orbits

The use of MRI of the orbits may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of the orbits may be reasonable and appropriate when the patient's medical record demonstrates optic neuritis.
- Evaluation of suspected optic nerve pathology may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Normal glaucoma test;
 - o Normal fundusoscopic examination;
 - o Unilateral vision loss.
- Evaluation of a suspected/known orbital mass may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Unilateral proptosis;
 - o Mass identified on physical examination;
 - o Mass identified on alternative imaging study which requires further evaluation.

The procedure codes that are associated with this policy are listed below.

MRI Orbit	CODES:
Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; without contrast material(s)	70540
Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; with contrast material(s)	70542
Magnetic resonance (eg, proton) imaging, orbit, face, and/or neck; without contrast material(s), followed by contrast material(s) and further sequences	70543

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Magnetic Resonance Imaging of the Pelvis

The use of MRI of the pelvis may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of abnormal uterine bleeding and /or leiomyoma may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Ultrasound findings consistent with leiomyoma or adenomyosis;
 - o Requested study is either pre- or post-fibro embolization or other uterine ablation procedure.
- Evaluation of pelvic bone or pelvic joint pain may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Trauma with a documented or suspected fracture demonstrated on radiography;
 - o Radiography is non-diagnostic.
- Evaluation of the pelvic mass may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Ultrasound demonstrating a solid mass measuring greater than five (5) centimeters in diameter;
 - o Ultrasound demonstrating a complex or indeterminate mass.
- Fetal MRI escalated review is required for this indication.

- MR Enterography may be reasonable and appropriate when the patient's medical record demonstrates a diagnosis of known small bowel disease requiring further evaluation.

- Evaluation of pelvic floor dysfunction may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - o Suspected pelvic floor dysfunction;
 - o Surgical intervention for pelvic floor dysfunction is planned.

The procedure codes that are associated with this policy are listed below.

MRI Pelvis	CODES:
Magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s)	72195
Magnetic resonance (eg, proton) imaging, pelvis; with contrast material(s)	72196
Magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s), followed by contrast material(s) and further sequences	72197

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Magnetic Resonance Imaging of the Spine: Cervical

The use of MRI of the cervical spine may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of possible cervical spine infection may be reasonable and appropriate when the patient's medical record demonstrates fever and cervical spine pain.
- Requests for a follow-up study to evaluate a known infection of the cervical spine may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Documented infection; and EITHER of the following:
 - No similar study in the past six (6) weeks;
 - New neurological symptoms.
- Post-operative evaluation for complications of cervical spine surgery may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o History of recent spinal surgery; and ANY of the following:
 - New/Acute Cervical pain;
 - Worsening Cervical pain;
 - Cervical pain with a documented motor deficit to either one or both of the upper extremities;
 - Cervical pain with a documented sensory deficit to either one or both of the upper extremities.

- Evaluation for suspicion of Multiple Sclerosis (MS) may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Previous imaging demonstrates MS lesions on the brain;
 - o Positive McDonald criteria.

- Evaluation of radiating neck pain, sensory and/or motor deficits of the upper extremities may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Radiculopathy is present in one or both upper extremity as evidenced by pain, motor and/or sensory deficit;
 - o Last MRI of the cervical spine was within the past four (4) months; and EITHER of the following:
 - Patient has had a procedure to the cervical spine since that time;
 - Patient is experiencing significant progression of their pain or radicular symptoms.
 - o Patient has not had a MRI of the cervical spine in the past four (4) months and this request is for pre-procedural evaluation prior to epidural steroid injection or cervical spine surgery.

- Evaluation of neck pain may be reasonable and appropriate when the patient's medical record demonstrates neck pain and ANY of the following:
 - o Patient has had a surgical procedure to the cervical spine since the last MRI and the findings showed NO canal stenosis or neuroforaminal stenosis.
 - o Prior MRI findings showed NO canal stenosis or neuroforaminal stenosis and the patient is experiencing marked progression of pain or radiculopathy related symptoms.
 - o Treatment with anti-inflammatory, analgesics or muscle relaxant medications and rehabilitative therapy showed no improvement after 4 weeks.

- Patient has had a surgical procedure to the cervical spine since the last MRI, which was done within the past 6 months.
- Patient is experiencing marked progression of pain or radiculopathy related symptoms.
- Treatment with rehabilitative therapy showed no improvement after 4 weeks, drug therapy was administered for less than 4 weeks, and the patient has a contraindication to anti-inflammatory medications.

The procedure codes that are associated with this policy are listed below.

MRI Cervical Spine	CODES:
Magnetic resonance (eg, proton) imaging, spinal canal and contents, cervical; without contrast material	72141
Magnetic resonance (eg, proton) imaging, spinal canal and contents, cervical; with contrast material(s)	72142
Magnetic resonance (eg, proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; cervical	72156

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Magnetic Resonance Imaging of the Spine: Lumbar

The use of MRI of the lumbar spine may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of possible lumbar spine infection may be reasonable and appropriate when the patient's medical record demonstrates fever and lumbar spine pain.
- Requests for a follow-up study to evaluate a known infection of the lumbar spine may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Documented infection; and EITHER of the following:
 - No similar study in the past six (6) weeks;
 - New neurological symptoms.
- Evaluation of a suspected tethered spinal cord in a pediatric patient may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o History of repair for Spina Bifida;
 - o Persistent incontinence of bowel or bladder;
 - o Fatty tumor or dimple above the gluteal crease;
 - o Pain or tingling in the legs or back;
 - o Lump in lower back or long hair growing over the lower spine;
 - o Change in gait or stumbling when walking.

- Post-operative evaluation for complications of lumbar spine surgery may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o History of recent spinal surgery; and ANY of the following:
 - New/Acute Lumbar pain;
 - Worsening Lumbar pain;
 - Lumbar pain with a documented motor deficit to either one or both of the lower extremities;
 - Lumbar pain with a documented sensory deficit to either one or both of the lower extremities.
- Evaluation of radiating low back pain, sensory and/or motor deficits of the lower extremities may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Radiculopathy is present in one or both lower extremity as evidenced by pain, motor and/or sensory deficit;
 - o Last MRI of the lumbar spine was within the past four (4) months; and EITHER of the following:
 - Patient has had a procedure to the lumbar spine since that time;
 - Patient is experiencing significant progression of their pain or radicular symptoms.
 - o Patient has not had a MRI of the lumbar spine in the past four (4) months and this request is for pre-procedural evaluation prior to epidural steroid injection or lumbar spine surgery.
- Evaluation of lower back pain may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Lower back pain is present; and EITHER of the following:

- Patient has not responded to four (4) weeks of rehabilitative therapy and medication;
- Prior MRI was greater than six (6) months ago.

The procedure codes that are associated with this policy are listed below.

MRI Lumbar Spine	CODES:
Magnetic resonance (eg, proton) imaging, spinal canal and contents, lumbar; without contrast material	72148
Magnetic resonance (eg, proton) imaging, spinal canal and contents, lumbar; with contrast material(s)	72149
Magnetic resonance (eg, proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; lumbar	72158

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Magnetic Resonance Imaging of the Spine: Thoracic

The use of MRI of the thoracic spine may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of possible thoracic spine infection may be reasonable and appropriate when the patient's medical record demonstrates fever and thoracic spine pain.
- Requests for a follow-up study to evaluate a known infection of the thoracic spine may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Documented infection; and EITHER of the following:
 - No similar study in the past six (6) weeks;
 - New neurological symptoms.
- Post-operative evaluation for complications of thoracic spine surgery may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o History of recent spinal surgery; and ANY of the following:
 - New/Acute Thoracic pain;
 - Worsening Thoracic pain;
 - Thoracic pain with documented motor deficit to the trunk;
 - Thoracic pain with documented sensory deficit to the trunk.

- Evaluation for suspicion of Multiple Sclerosis (MS) may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - Previous imaging demonstrates MS lesions on the brain;
 - Positive McDonald criteria.

- Evaluation of radiating thoracic pain, sensory and/or motor deficits of the upper extremities may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - Radiculopathy is present in the trunk as evidenced by pain, motor and/or sensory deficit;
 - Last MRI of the thoracic spine was within the past four (4) months; and EITHER of the following:
 - Patient has had a procedure to the thoracic spine since that time;
 - Patient is experiencing a significant progression of their pain or radicular symptoms.
 - Patient has not had a MRI of the thoracic spine in the past four (4) months and this request is for pre-procedural evaluation prior to epidural steroid injection or thoracic spine surgery.

- Evaluation of thoracic pain may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Thoracic pain is present; and EITHER of the following:
 - Patient has not responded to four (4) weeks of rehabilitative therapy and medication;
 - Prior MRI was greater than six (6) months ago.

The procedure codes that are associated with this policy are listed below.

MRI Thoracic Spine	CODES:
Magnetic resonance (eg, proton) imaging, spinal canal and contents, thoracic without contrast material	72146
Magnetic resonance (eg, proton) imaging, spinal canal and contents, thoracic with contrast material(s)	72147
Magnetic resonance (eg, proton) imaging, spinal canal and contents, without contrast material, followed by contrast material(s) and further sequences; thoracic	72157

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Magnetic Resonance Imaging of the Temporomandibular Joint

The use of MRI of the temporomandibular joint (TMJ) may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of TMJ pain may be reasonable and appropriate when the requested service is ordered by an oral surgeon or an ear/nose and throat (ENT) specialist the patient's medical record demonstrates ANY of the following:
 - o Clicking;
 - o Locking;
 - o Limited range of motion.

The procedure codes that are associated with this policy are listed below.

MRI TMJ	CODES:
Magnetic resonance (eg, proton) imaging, temporomandibular joint(s)	70336

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Magnetic Resonance Imaging of the Upper Extremities (Not Joint)

The use of MRI for the upper extremities (not joint) may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of a suspected or known fracture may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Trauma; and EITHER of the following:
 - Non-diagnostic radiographic study;
 - Plain films demonstrate a known fracture or are suspicious for fracture.
- Evaluation of suspected osteomyelitis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Pain at site of suspicion; and EITHER of the following:
 - Ulceration at site of suspicion;
 - Positive blood culture, elevated sedimentation rate or elevated C-reactive protein level.
 - o Diagnosis of diabetic peripheral neuropathy with ulceration at the site of suspicion.

The procedure codes that are associated with this policy are listed below.

MRI Upper Extremity- Non Joint	CODES:
Magnetic resonance (eg, proton) imaging, upper extremity, other than joint; without contrast material(s)	73218
Magnetic resonance (eg, proton) imaging, upper extremity, other than joint; with contrast material(s)	73219
Magnetic resonance (eg, proton) imaging, upper extremity, other than joint; without contrast material(s), followed by contrast material(s) and further sequences	73220

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Magnetic Resonance Imaging of the Elbow

The use of MRI of the elbow may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of a bicep tendon tear may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Acute injury;
 - o Weakness demonstrated with arm flexion;
 - o Palpable lump in the bicep region.

- Evaluation of osteochondritis dessicans of the elbow may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Prior imaging was positive for osteochondritis dessicans;
 - o Prior imaging was questionable for osteochondritis dessicans.

- Evaluation of elbow pain may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - o Radiography is non-diagnostic;
 - o No improvement despite activity level change and anti-inflammatory medications.

- Evaluation of suspected osteomyelitis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Pain at site of suspicion; and EITHER of the following:

- Ulceration at site of suspicion;
 - Positive blood culture, elevated sedimentation rate or elevated C-reactive protein level.
- Diagnosis of diabetic peripheral neuropathy with ulceration at the site of suspicion.
- Evaluation of a suspected septic joint may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Elbow pain; and ANY of the following:
 - Fever greater than 100 degrees;
 - White blood cell (WBC) count greater than 10,000.

The procedure codes that are associated with this policy are listed below.

MRI Elbow	CODES:
Magnetic resonance (eg, proton) imaging, any joint of upper extremity; without contrast material(s)	73221
Magnetic resonance (eg, proton) imaging, any joint of upper extremity; with contrast material(s)	73222
Magnetic resonance (eg, proton) imaging, any joint of upper extremity; without contrast material(s), followed by contrast material(s) and further sequences	73223

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Magnetic Resonance Imaging of the Shoulder

The use of MRI of the shoulder may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of avascular necrosis of the shoulder may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Prior imaging was positive for avascular necrosis;
 - o Prior imaging was questionable for avascular necrosis.
- Evaluation of a questionable shoulder fracture seen on CT scan may be reasonable and appropriate in the presence of an acute injury.
- Evaluation of suspected osteomyelitis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Pain at site of suspicion; and EITHER of the following:
 - Ulceration at site of suspicion;
 - Positive blood culture, elevated sedimentation rate or elevated C-reactive protein level.
 - o Diagnosis of diabetic peripheral neuropathy with ulceration at the site of suspicion.
- Evaluation of a suspected septic joint may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Shoulder pain; and ANY of the following:

- Fever greater than 100 degrees;
 - White blood cell (WBC) count greater than 10,000.
- Evaluation of instability of the shoulder joint may be reasonable and appropriate when the patient's medical record demonstrates that the shoulder is giving way in two (2) directions, with or without injection for evaluation of the labrum.
- Evaluation of shoulder pain may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Shoulder pain; and ANY of the following:
 - Tendonitis/Tendinosis with progressively worsening symptoms;
 - Recent shoulder procedure since the last shoulder MRI was performed;
 - New shoulder pain or injury which has been evaluated with radiography which was non-diagnostic and patient has not responded to treatment with activity change and anti-inflammatory medication.
- Evaluation of an abnormal radiography study or abnormal physical examination may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - Shoulder weakness present on abduction of the arm; and ANY of the following:
 - Tendonitis/Tendinosis with progressively worsening symptoms;
 - Supraspinatus pain present on physical examination and patient has not responded to a change in activity level or anti-inflammatory medications;
 - New shoulder injury which has been evaluated with radiography which was non-diagnostic and patient has not responded to treatment with activity change and anti-inflammatory medication.
 - Recent shoulder procedure since the last shoulder MRI was performed.

The procedure codes that are associated with this policy are listed below.

MRI Shoulder	CODES:
Magnetic resonance (eg, proton) imaging, any joint of upper extremity; without contrast material(s)	73221
Magnetic resonance (eg, proton) imaging, any joint of upper extremity; with contrast material(s)	73222
Magnetic resonance (eg, proton) imaging, any joint of upper extremity; without contrast material(s), followed by contrast material(s) and further sequences	73223

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Magnetic Resonance Angiogram of the Abdomen

The use of Magnetic Resonance Angiogram (MRA) of the abdomen may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of an abdominal aortic aneurysm (AAA) may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Ultrasound is non-diagnostic; and EITHER of the following:
 - Request is for screening a patient who is at high risk for developing a AAA;
 - Request is for follow-up monitoring of a known AAA.
 - o Request is for staging of an endovascular procedure for a known AAA;
 - o Request is for follow-up study after a endovascular procedure for a known AAA;
 - o Request is for follow-up study after any repair of AAA.
- Evaluation of suspected renal artery stenosis may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Uncontrolled hypertension;
 - o Malignant hypertension.
- Evaluation for perforator/flap selection may be reasonable and appropriate when the medical record demonstrates the patient's plan of care includes reconstructive surgery utilizing flap procedure.
- Evaluation for Pre-operative evaluation of a renal transplant recipient or donor.

- Evaluation of suspected arterial stenosis may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Patient is a candidate for surgical/interventional treatment and arterial stenosis is confirmed;
 - o Decreased extremity pulses are demonstrated on physical examination;
 - o Buttock or lower extremity claudication is present;
 - o Ankle/Brachial Index (ABI) is less than 0.9 or patient has a diagnosis of diabetes mellitus.
- Evaluation of a suspected occlusion or stenosis of a bypass graft may be reasonable and appropriate when the medical record demonstrates a recent duplex ultrasound which is either suspicious for or confirms a bypass graft abnormality.
- Evaluation of suspected aortic dissection may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Chest pain; and ANY of the following:
 - Chest radiography demonstrates a widened mediastinum or displacement of aortic calcification;
 - Pulse deficit on physical examination;
 - No acute EKG changes in the presence of a new aortic regurgitation.
- Evaluation of suspected mesenteric ischemia, stenosis or occlusion may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:
 - o Abnormal weight loss;
 - o Abdominal pain associated with eating.

The procedure codes that are associated with this policy are listed below.

MRA Abdomen	CODES:
Magnetic resonance angiography, abdomen, with or without contrast material(s)	74185
Magnetic resonance angiography with contrast, abdomen	C8900
Magnetic resonance angiography without contrast, abdomen	C8901
Magnetic resonance angiography without contrast followed by with contrast, abdomen	C8902

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Magnetic Resonance Angiogram of the Brain

The use of Magnetic Resonance Angiogram (MRA) of the brain may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation for intracranial aneurysm may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Patient has a first degree family history of cerebral aneurysm;
 - o Diagnosis of polycystic renal disease;
 - o History of multiple meningioma's;
 - o Diplopia;
 - o Exertional headache;
 - o Acute 3rd nerve palsy involving the pupil.
- Follow-up evaluation of a known intracranial aneurysm may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o New/Acute headache;
 - o Change in headache frequency or pattern;
 - o Routine monitoring of intracranial aneurysm when the last MRA of the brain was greater than six (6) months ago.
- Screening for a Dural arteriovenous fistula when the patient's medical record demonstrates pulsatile tinnitus.
- Evaluation for suspected intracranial venous thrombosis may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:

- Papilledema;
 - Extracranial mass adjacent to a venous sinus;
 - Fracture at the base or vertex of the skull;
 - Headache present in a patient with a hypercoagulable state.
- Evaluation of suspected transient ischemic attack (TIA) or cerebral vascular accident (CVA) may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
- Symptoms of TIA or CVA present;
 - Symptoms of Carotid or Vertebrobasilar neurological defect present.

The procedure codes that are associated with this policy are listed below.

MRA Head/Brain	CODES:
Magnetic resonance angiography, head; without contrast material(s)	70544
Magnetic resonance angiography, head; with contrast material(s)	70545
Magnetic resonance angiography, head; without contrast material(s) followed by contrast materials(s) and further sequences	70546

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Magnetic Resonance Angiogram of the Chest

The use of Magnetic Resonance Angiogram (MRA) of the chest may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Initial follow-up study after pulmonary vein ablation to evaluate for stenosis in the surrounding vessels.
- Pre-operative study for patient undergoing evaluation for pulmonary vein ablation.
- Evaluation of suspected dissection of the thoracic aorta may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Chest pain; and ANY of the following:
 - Chest radiography demonstrates a widened mediastinum or displacement of aortic calcification;
 - Pulse deficit on physical examination;
 - No acute EKG changes in the presence of a new aortic regurgitation.
- Evaluation of a suspected or known thoracic aneurysm may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Diagnosis of a thoracic aneurysm; and EITHER of the following:
 - Request is for annual evaluation;
 - Recent chest radiography demonstrates and enlargement of the aneurysm.
 - o Recent Echocardiogram incompletely documents an aneurysm;
 - o Recent chest radiography suggests or documents an aneurysm.

The procedure codes that are associated with this policy are listed below.

MRA Chest	CODES:
Magnetic resonance angiography, chest (excluding myocardium), with or without contrast material(s)	71555
Magnetic resonance angiography with contrast, chest (excluding myocardium)	C8909
Magnetic resonance angiography without contrast, chest (excluding myocardium)	C8910
Magnetic resonance angiography without contrast followed by with contrast, chest (excluding myocardium)	C8911

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Magnetic Resonance Angiogram of the Extremity

The use of Magnetic Resonance Angiogram (MRA) of the extremity may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Pre-operative evaluation may be reasonable and appropriate when the patient's medical record demonstrates planning for reconstructive surgery utilizing a skin flap for closure.
- Evaluation of suspected arterial stenosis may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Patient is a candidate for surgical/interventional treatment and arterial stenosis is confirmed;
 - o Decreased extremity pulses are demonstrated on physical examination;
 - o Ischemic symptoms are present;
 - o Peripheral Doppler study is non-diagnostic/suggestive of stenosis or patient has a diagnosis of diabetes mellitus.
- Evaluation of suspected occlusion or stenosis of a bypass graft may be reasonable and appropriate when the medical record demonstrates a recent duplex ultrasound which is either suspicious for or confirms a bypass graft abnormality.

The procedure codes that are associated with this policy are listed below.

MRA Extremity	CODES:
Magnetic resonance angiography with contrast, upper extremity	C8934
Magnetic resonance angiography without contrast, upper extremity	C8935
Magnetic resonance angiography without contrast followed by with contrast, upper extremity	C8936
Magnetic resonance angiography, lower extremity, with or without contrast material(s)	73725
Magnetic resonance angiography with contrast, lower extremity	C8912
Magnetic resonance angiography without contrast, lower extremity	C8913
Magnetic resonance angiography without contrast followed by with contrast, lower extremity	C8914
Magnetic resonance angiography, upper extremity, with or without contrast material(s)	73225

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Magnetic Resonance Angiogram of the Neck

The use of Magnetic Resonance Angiogram (MRA) of the neck may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of suspected carotid or vertebral artery dissection/stenosis or thrombosis after dissection may be reasonable and appropriate when the patient's medical record demonstrates ANY of the following:
 - o Acute unilateral headache radiating to the neck in a patient with diagnosed with Ipsilateral Horner's Syndrome;
 - o Diplopia;
 - o Ataxia;
 - o Dysarthria;
 - o Aphasia;
 - o Acute vision loss;
 - o Hemiparesis of limb or sensory deficit.
- Evaluation of suspected cervical carotid stenosis may be reasonable and appropriate when the patient's medical record demonstrates the following:
 - o Patient is an operative candidate; and EITHER of the following:
 - Non-diagnostic carotid duplex ultrasound in the presence of a carotid bruit on physical examination;
 - Carotid duplex ultrasound demonstrating hemodynamically significant stenosis.

- Evaluation of suspected transient ischemic attack (TIA) or cerebral vascular accident (CVA) may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Symptoms of TIA or CVA present;
 - o Symptoms of Carotid or Vertebrobasilar neurological defect present.

The procedure codes that are associated with this policy are listed below.

MRA Neck	CODES:
Magnetic resonance angiography, neck; without contrast material(s)	70547
Magnetic resonance angiography, neck; with contrast material(s)	70548
Magnetic resonance angiography, neck; without contrast material(s), followed by contrast material(s) and further sequences	70549

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Magnetic Resonance Angiogram of the Pelvis

The use of Magnetic Resonance Angiogram (MRA) of the pelvis may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of an abdominal aortic aneurysm (AAA) may be reasonable and appropriate when the patient's medical record demonstrates ANY ONE of the following:
 - o Ultrasound is non-diagnostic; and EITHER of the following:
 - For screening of a patient who is at high risk for developing AAA;
 - For follow-up monitoring of a known AAA.
 - o For staging of an endovascular procedure of a known AAA;
 - o For follow-up study after a endovascular procedure for a known AAA;
 - o For follow-up study after any repair of an AAA.
- Evaluation of suspected arterial stenosis may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Patient is a candidate for surgical/interventional treatment an arterial stenosis is confirmed;
 - o Decreased extremity pulses are demonstrated on physical examination;
 - o Buttock or lower extremity claudication is present;
 - o Ankle/Brachial Index (ABI) is less than 0.9 or patient has a diagnosis of diabetes mellitus.

- Evaluation of a suspected occlusion or stenosis of a bypass graft may be reasonable and appropriate when the medical record demonstrates a recent duplex ultrasound which is either suspicious for or confirms a bypass graft abnormality.
- Evaluation of suspected mesenteric ischemia, stenosis or occlusion may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - o Abnormal weight loss;
 - o Abdominal pain associated with eating.
- Evaluation of abnormal uterine bleeding may be reasonable and appropriate when the patient's medical record demonstrates EITHER of the following:
 - o Ultrasound findings are consistent with leiomyoma or adenomyosis;
 - o Pre or post-operative evaluation for fibroid embolization or other ablation procedure.

The procedure codes that are associated with this policy are listed below.

MRA Pelvis	CODES:
Magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s)	72195
Magnetic resonance (eg, proton) imaging, pelvis; with contrast material(s)	72196
Magnetic resonance (eg, proton) imaging, pelvis; without contrast material(s), followed by contrast material(s) and further sequences	72197
Magnetic resonance angiography, pelvis, with or without contrast material(s)	72198
Magnetic resonance angiography with contrast, pelvis	C8918
Magnetic resonance angiography without contrast, pelvis	C8919
Magnetic resonance angiography without contrast followed by with contrast, pelvis	C8920

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Magnetic Resonance Angiogram of the Spine

The use of Magnetic Resonance Angiogram (MRA) of the spine may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of the spine utilizing MRA technology may be reasonable and appropriate when the patient's medical record demonstrates that the patient has not had the same exam in the past three (3) months and **ANY** of the following:
 - Patient is exhibiting myelopathy that is suspicious for vascular origins;
 - Patient is suspicious for vascular malformation;
 - Pre-operative planning for the treatment of a known spinal vascular malformation;
 - Follow-up post-operative study for known spinal vascular malformation;
 - Pre-operative planning for aortic surgery where there is a risk for spinal arterial complications;
 - Pre-operative planning for spinal surgery where there is a risk for spinal arterial complications.

The procedure codes that are associated with this policy are listed below.

MRA Spine	CODES:
Magnetic resonance angiography, spinal canal and contents, with or without contrast material(s)	72159
Magnetic resonance angiography with contrast, spinal canal and contents	C8931
Magnetic resonance angiography without contrast, spinal canal and contents	C8932
Magnetic resonance angiography without contrast followed by with contrast, spinal canal and contents	C8933

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Positron Emission Tomography of the Brain

The use of Positron Emission Tomography (PET) of the brain may be appropriate and supported by evidence to improve patient outcomes for the following indications.

- Evaluation of suspected Alzheimer's Disease may be reasonable and appropriate when the patient's medical record demonstrates ALL of the following:
 - Neuropsychological report suggestive of Alzheimer's Disease or frontotemporal dementia;
 - Recent diagnosis of dementia with memory loss present;
 - Documentation of suspected Alzheimer's Disease diagnosis;
 - Documentation of physical and mental status examinations;
 - History of cognitive decline documented at six (6) month intervals for a minimum of the past year;
 - Recent B12 and thyroid laboratory values which are within normal range;
 - Recent CT or MRI of the brain which are negative for any structural abnormality;
 - Patient has not had a similar study in the past twelve (12) months;

And ANY of the following:

- New loss of appropriate social behavior;
 - New language difficulty;
 - New awkward behavior;
 - New loss of judgement or reasoning abilities.
- Evaluation of refractory seizure activity may be reasonable and appropriate when the patient's medical record demonstrates BOTH of the following:

- This request is a pre-surgical evaluation for localization of the seizure focus;
- Seizures are refractory to medical treatment.

The procedure codes that are associated with this policy are listed below.

PET Brain	CODES:
Brain imaging, positron emission tomography (PET); metabolic evaluation	78608
Brain imaging, positron emission tomography (PET); perfusion evaluation	78609

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