Cohere Medicare Advantage Policy - Computed Tomography (CT), Abdomen/Pelvis

Clinical Guidelines for Medical Necessity Review

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Important Notices

Notices & Disclaimers:

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Other Notices:

Guideline Information:

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Medical Necessity Criteria

Service: Computed Tomography (CT), Abdomen/Pelvis

Benefit Category

Diagnostic Services in Outpatient Hospital
Diagnostic Tests (other)

Please Note: This may not be an exhaustive list of all applicable Medicare benefit categories for this item or service.[1]

Related CMS Documents

Please refer to the CMS Medicare Coverage Database for the most current applicable CMS National Coverage.[1-5]

- National Coverage Determination (NCD). Computed tomography (CT) (220.1)
- Local Coverage Determination (LCD). CT of the Abdomen and Pelvis (L34415)
- Billing and Coding: CT of the Abdomen and Pelvis (A56421)
- Local Coverage Determination (LCD). Multiple Imaging in Oncology (L35391)
- Billing and Coding: Multiple Imaging in Oncology (A56848)

Recommended Clinical Approach

Computed tomography (CT) of the abdomen/pelvis should be initiated by the referring physician or an appropriate allied healthcare professional involved in the patient's care. The request should contain all the necessary information regarding the patient's signs and symptoms, history, and known and suspected diagnoses to determine the appropriate imaging modalities.[6]

Bosniak Classification[7-8]		
Stage	**Malignancy Risk (%)**	**Features**
I	0	Hairline-thin wall; water attenuation; no septa, calcifications, or solid components; non-enhancing.
II	0	1. Few thin septa with or without perceived (not measurable) enhancement; fine calcification or a short segment of slightly thickened calcification in the wall or septa. 2. Homogeneously high-attenuating masses less than or equal to 3 cm that are sharply marginated and do not enhance.
IIF	5	1. Minimally thickened or more than a few thin septa with or without perceived (not measurable) enhancement that may have thick or nodular calcification. 2. Intrarenal non-enhancing hyperattenuating renal masses greater than 3 cm.
III	50	Thickened (less than 3 mm) wall or septa with enhancement.
IV	90	Soft tissue components (e.g., nodules) with measurable enhancement.

Evaluation of Clinical Harms and Benefits

Cohere Health uses the criteria below to ensure consistency in reviewing the conditions to be met for coverage of computed tomography (CT), abdomen/pelvis. This process helps to prevent both incorrect denials and inappropriate approvals of medically necessary services. Specifically, limiting incorrect approvals reduces the risks associated with unnecessary procedures, such as complications from surgery, infections, and prolonged recovery times.

A computed tomographic (CT) image is a display of the anatomy of a cross-section of the body developed from multiple x-ray absorption measurements made around the periphery of the body. The CT image is constructed mathematically using data arising from the section of interest that is oriented essentially perpendicular to the axial dimensions of the body. The final CT image can be accomplished in any plane.[2]

The potential clinical harms of using these criteria may include:

- An inherent risk of procedure: There are inherent risks of imaging, including cumulative radiation exposure, contrast, allergy, nephrotoxicity, and contrast extravasation into surrounding tissues.[9-12]
- Potential danger to pregnancy: CT imaging completed during pregnancy confers a dose of ionizing radiation to the fetus and is generally only utilized when the potential benefits of this specific imaging modality outweigh the risks to the pregnancy.[13] Fetal risk includes fetal demise, intrauterine growth restriction, microcephaly, delayed intellectual development, risk of childhood cancer, and fetal thyroid injury.[13]
- Increased healthcare costs and complications from the inappropriate use of additional interventions.[14]

The clinical benefits of using these criteria include[20]:

- Detailed images of bone, soft tissue, and blood vessels allow for diagnosing conditions as well as for treatment planning and evaluation. Exploratory surgery and biopsy may be unnecessary in some scenarios due to the detail that CT provides.[15,31]
- Appendicitis is the most common reason for emergency abdominal surgery and is difficult to diagnose clinically. Diagnostic accuracy of acute appendicitis is 93 to 98% with CT.[16] When compared to ultrasound, CT has a higher sensitivity and positive predictive value.[17, 29]
- CT scans of thorax, abdomen, or pelvic organs have been shown to be most effective in diagnosing cancers. Due to widespread availability and relatively low cost, CT is a valuable approach for cancer screening.[18]
- Enhanced overall patient satisfaction and healthcare experience.

This policy includes provisions for expedited reviews and flexibility in urgent cases to mitigate risks of delayed access. Evidence-based criteria are employed to prevent inappropriate denials and ensure that patients receive medically necessary care. The criteria aim to balance the need for effective treatment with the minimization of potential harms, providing numerous

clinical benefits in helping avoid unnecessary complications from inappropriate care.

In addition, the use of these criteria is likely to decrease inappropriate denials by creating a consistent set of review criteria, thereby supporting optimal patient outcomes and efficient healthcare utilization.

Medical Necessity Criteria

Indications

- ➔ **Computed tomography (CT), abdomen or abdomen/pelvis** is considered appropriate if **ANY** of the following is **TRUE**[6]:
  - ◆ **ANY** of the following indications:
    - Abdominal, including pain in the general abdomen, lower abdomen, or pelvic area[2,19-21]; **OR**
    - Abnormality in the hepatobiliary system (e.g., liver, bile ducts, gallbladder, and associated structures); **OR**
    - Diffuse liver disease (e.g., cirrhosis, steatosis, iron deposition disease); **OR**
    - Autoimmune or inflammatory processes (e.g., pancreatitis[30] autoimmune hepatitis, primary biliary cirrhosis); **OR**
    - Preoperative or postoperative evaluation; **OR**
    - Splenic or perisplenic abnormalities; **OR**
    - Abnormalities of the kidneys and adrenal gland when **ANY** of the following is **TRUE**[7-10,36-37]:
      - Characterization of renal cysts that do not appear to be simple on ultrasound[7-8]; **OR**
      - Indeterminate renal and adrenal masses; **OR**
    - Abdominal masses or fluid collections, known or suspected[2]; **OR**
    - Abnormalities in abdominal or pelvic vascular structures (e.g., aortic aneurysm, pulsatile abdominal mass, retroperitoneal bleed[38], etc.)[2]; **OR**
    - Trauma[2]; **OR**
    - Clarification of findings from other imaging studies of the abdomen[2]; **OR**
    - Confirmation of abdominal pathology suggested by laboratory abnormalities[2]; **OR**
    - Guidance for interventional diagnostic or therapeutic procedures[2]; **OR**
    - Planning for radiation therapy[2]; **OR**

- Evaluation for transcatheter aortic valve implantation/replacement (TAVI/TAVR) if patient has not undergone a CT of the abdomen within the preceding 60 days[2,22-24]; **OR**
- Neoplastic conditions for **ANY** of the following[4]:
    - Initial staging; **OR**
    - Treatment planning; **OR**
    - Response assessment; **OR**
    - Surveillance, and **ANY** of the following is **TRUE**[4-5,26-28]:
        - The patient is assumed to have either no known disease or disease that is stable or clinically insignificant (every 6-12 months for an overall duration [e.g., 5 years]); **OR**
        - Suspected recurrence/progression; **OR**
        - Evaluation of response to treatment when a change in therapy is contemplated; **OR**
- Conditions related to the prostate, including **ANY** of the following[2]:
    - Prostatitis when symptoms are worsening despite treatment; **OR**
    - Prostate cancer for **ANY** of the following indications:
        - Initial staging
        - Assessment of treatment response when carcinoma is poorly differentiated; **OR**
        - Restaging, when metastases are suspected; **OR**
- Unexplained lymphadenopathy[2]; **OR**
- Genitourinary (GU) disorders including **ALL** of the following:
    - when the physician cannot make a diagnosis based on physical exam and/or ultrasound[2]; **AND**
    - **ANY** of the following:
        - Further evaluation of known bladder pathology seen on cystoscopy or ultrasound[2]; **OR**
        - Other reproductive organs, including the uterus/ovaries/testicle/fallopian tube/cervix when ultrasound is indeterminate (MRI is preferred)[2]; **OR**
        - An undescended testicle (MRI is preferred); **OR**
        - Postpartum hemorrhage[32]; **OR**
        - Ovarian cysts or indeterminate masses; **OR**

- Repeat imaging (defined as repeat request following recent imaging of the same anatomic region with the same modality), in the absence of established guidelines, will be considered reasonable and necessary if **ANY** of the following is **TRUE**:
    - New or worsening symptoms, such that repeat imaging would influence treatment; **OR**
    - One-time clarifying follow-up of a prior indeterminate finding; **OR**
    - In the absence of change in symptoms, there is an established need for monitoring which would influence management.

Non-Indications

➔ **Computed tomography (CT), abdomen/pelvis with contrast** is **NOT** considered appropriate if **ANY** of the following is **TRUE**[25]:

- History of anaphylactic allergic reaction to iodinated contrast media.

*NOTE: The referring professional and radiologist should discuss the risks and benefits of contrast media administration, including possible prophylaxis, in patients with chronic or worsening kidney disease or severe renal failure.
**NOTE: CT in pregnant patients should be requested at the discretion of the ordering provider and obstetric care provider.
***NOTE: CT in patients with claustrophobia should be requested at the discretion of the ordering provider.

Disclaimer on Radiation Exposure in Pediatric Population

Due to the heightened sensitivity of pediatric patients to ionizing radiation, minimizing exposure is paramount. At Cohere, we are dedicated to ensuring that every patient, including the pediatric population, has access to appropriate imaging following accepted guidelines. Radiation risk is dependent mainly on the patient's age at exposure, the organs exposed, and the patient's sex, though there are other variables. The following technical guidelines are provided to ensure safe and effective imaging practices:

Radiation Dose Optimization: Adhere to the lowest effective dose principle for

pediatric imaging. Ensure that imaging protocols are specifically tailored for pediatric patients to limit radiation exposure.[11,33]

Alternative Modalities: Prioritize non-ionizing imaging options such as ultrasound or MRI when clinically feasible, as they are less likely to expose the patient to ionizing radiation. For instance, MRI or ultrasound should be considered if they are more likely to provide an accurate diagnosis than CT, fluoroscopy, or radiography.[11,33]

Cumulative Dose Monitoring: Implement systems to track cumulative radiation exposure in pediatric patients, particularly for those requiring multiple imaging studies. Regularly reassess the necessity of repeat imaging based on clinical evaluation.[11,33]

CT Imaging Considerations: When CT is deemed the best method for achieving a correct diagnosis, use the lowest possible radiation dose that still yields reliable diagnostic images.[11,33]

Cohere Imaging Gently Guideline

The purpose of this guideline is to act as a potential override when clinically indicated to adhere to Imaging Gently and Imaging Wisely guidelines and As Low As Reasonably Possible (ALARA) principles.

Level of Care Criteria

Inpatient or Outpatient

Procedure Codes (CPT/HCPCS)

CPT/HCPCS Code	Code Description
72192	Computed tomography (CT), pelvis; without contrast material
72193	Computed tomography (CT), pelvis; with contrast material
72194	Computed tomography (CT), pelvis; without contrast material, followed by contrast material(s) and further sections
74150	Computed tomography (CT), abdomen; without contrast material
74160	Computed tomography (CT), abdomen; with contrast material
74170	Computed tomography (CT), abdomen; without contrast material, followed by contrast material(s) and further sections
74176	Computed tomography (CT), abdomen and pelvis; without contrast material
74177	Computed tomography (CT), abdomen and pelvis; with contrast material
74178	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
76380	Computed tomography, limited or localized follow-up study

Disclaimer: G, S, I, and N Codes are non-covered per CMS guidelines due to their experimental or investigational nature.

Medical Evidence

Shah et al. (2022) performed a retrospective review of patients who had at least one CT scan of the abdomen (± pelvis) or MRI of the abdomen (± pelvis) at least 30 days post-diagnosis of Crohn's disease (CD) or ulcerative colitis (UC). The review identified factors associated with patients undergoing more than 5 CT scans of the abdomen between 2010 and 2019 and included 176,110 patients with CD and 143,460 patients with UC. From 2010 to 2019, the prevalence of individuals undergoing at least one annual CT scan of the abdomen increased with a mean annual percentage change of +3.6% for CD and +4.9% for UC. A 3.8% increase was found in the proportion of CD patients receiving greater than or equal to 5 CT scans of the abdomen annually compared to a 2.4% increase among UC patients over the ten years. The authors conclude that the prevalence of CT scans in IBD patients has escalated. Future research is needed regarding the determinants influencing the utilization of CT and MRI scans.[34]

Oldroyd et al. (2021) conducted a meta-analysis that focused on using CT to identify underlying asymptomatic cancers. CT scans of thorax, abdomen, or pelvic organs proved to be the most effective in diagnosing cancer cases, accounting for most detections (5 out of 18, 28%). Due to widespread availability and relatively low cost, CT scanning is a potentially valuable approach for cancer screening.[18]

Baron et al. (2018) performed a systematic review and meta-analysis on the accuracy of CT in the diagnosis of intra-abdominal injuries in patients presenting to the emergency department (ED) with anterior abdominal stab wounds. The study aimed to assess the precision of abdominal and pelvic computed tomography (CTAP) in diagnosing intra-abdominal injuries that necessitate therapeutic laparotomy (THER-LAP) in ED patients with acute abdominal or abdominal and pelvic blunt trauma. A total of 575 patients were included. For stable patients with suspected abdominal aortic syndromes, relying solely on a negative CT scan without a period of observation is insufficient to rule out significant intra-abdominal injuries.[35]

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