

<b>Subject: CT Abdomen (74150, 74160, 74170)</b>		<b>Original Effective Date: 9/19/2017</b>
<b>Policy Number: MCR: 635</b>	<b>Revision Date(s):</b>	
<b>Review Date: 9/19/2017, 12/19/18, 12/10/19</b>		

**DISCLAIMER**

*This Molina Clinical Review (MCR) is intended to facilitate the Utilization Management process. It expresses Molina's determination as to whether certain services or supplies are medically necessary, experimental, investigational, or cosmetic for purposes of determining appropriateness of payment. The conclusion that a particular service or supply is medically necessary does not constitute a representation or warranty that this service or supply is covered (i.e., will be paid for by Molina) for a particular member. The member's benefit plan determines coverage. Each benefit plan defines which services are covered, which are excluded, and which are subject to dollar caps or other limits. Members and their providers will need to consult the member's benefit plan to determine if there are any exclusion(s) or other benefit limitations applicable to this service or supply. If there is a discrepancy between this policy and a member's plan of benefits, the benefits plan will govern. In addition, coverage may be mandated by applicable legal requirements of a State, the Federal government or CMS for Medicare and Medicaid members. CMS's Coverage Database can be found on the CMS website. The coverage directive(s) and criteria from an existing National Coverage Determination (NCD) or Local Coverage Determination (LCD) will supersede the contents of this Molina Clinical Review (MCR) document and provide the directive for all Medicare members.*

**DESCRIPTION OF PROCEDURE/SERVICE/PHARMACEUTICAL**

Computed tomography (CT) scans use X-ray technology and advanced computer analysis to create detailed pictures of your body. A CT scan of the abdomen is a diagnostic imaging test used to help detect diseases of the liver, small bowel, colon and other internal organs and is often used to determine the cause of unexplained pain.

**RECOMMENDATIONS**

**Chronic Abdominal Pain**

The initial evaluation of abdominal pain consists of a detailed history and physical examination, appropriate laboratory studies, and frequently non-advanced imaging such as x-ray or ultrasound. The presence of certain “red flags” may preclude the initial performance of non-advanced imaging. In some cases, endoscopy may be the preferred study.

In children under the age of 14, ultrasound should be the initial study performed for evaluation of abdominal pain.

For the majority of clinical conditions, imaging both the abdomen and pelvis is warranted. Imaging can be limited to part of the abdominal cavity for follow up of specific organs or when the pathology is localized to a particular region of the abdominal cavity. A patient’s exposure to ionized radiation can be limited in these instances.

Male

Location	Recommendations
Generalized	Initial Ultrasound
Right Upper Quadrant	Initial Ultrasound
Left Upper Quadrant	Consider Ultrasound and/or evaluate for possible gastric causes
Left Lower Quadrant	CT if concern for conditions listed below
Right Lower Quadrant	CT if concern for conditions listed below

Female

Location	Recommendations
Generalized	Initial Ultrasound
Right Upper Quadrant	Initial Ultrasound
Left Upper Quadrant	Consider Ultrasound and/or evaluate for possible gastric causes
Left Lower Quadrant	Initial Pelvic Ultrasound
Right Lower Quadrant	Initial Pelvic Ultrasound

Kidney Stones – Suspected (Abdomen/Pelvic CT is recommended)

Flank pain and +/- hematuria

Kidney Stones –Known or Follow up (Abdomen/Pelvic CT is recommended)

If initial x-ray (KUB) or ultrasound is indeterminate

Hematuria (Abdomen/Pelvic CT is recommended)

Known Tumor or Mass (limited to the upper abdominal cavity only e.g. liver, kidney, adrenal)

- Initial evaluation of a recently diagnosed cancer
- Follow up of a known tumor or mass after completion of treatment or with new signs/symptoms
- Surveillance of a known tumor or mass according to accepted clinical standards.
- For initial staging of prostate cancer with a PSA of 20 or higher or a Gleason score of 7 or higher (either Pelvic CT or Abdomen/Pelvic CT is recommended)

Suspected Tumor or Mass Not Confirmed as Cancer (limited to the upper abdominal cavity only)

- Evaluation of an abnormality seen on x-ray or other imaging
- Evaluation of an abnormality on physical examination and initial evaluation with x-ray or ultrasound has been completed.
- Suspected tumor based on abnormal laboratory test results (e.g. elevated tumor markers)

Infection Suspected (Abdomen/Pelvic CT is recommended)

- Appendicitis, acute abdominal pain with at least one of the following:
  - Nausea/vomiting
  - Fever of at least 100.3 or higher
  - Abdominal rigidity, guarding/rebound tenderness, or other peritoneal signs
  - Elevated white blood cell count (WBC)

- Diverticulitis - Complication of diverticulitis with severe abdominal tenderness or mass, not responding to antibiotics
- Abscess (limited to the upper abdominal cavity only)
  - Any known infection that is clinically suspected to have created an abscess
  - Re-evaluation of an abscess after treatment

### Fistula

Evaluation of a known or suspected fistula (limited to the upper abdominal cavity only)

### Inflammation

- Suspected pancreatitis (new or recurrent) with abnormal amylase or lipase or severe focal pain.
- Known pancreatitis and concern for pseudocyst formation
- Suspected inflammatory bowel disease (new or recurrent) with abdominal pain, persistent diarrhea or bloody diarrhea (Abdomen/Pelvic CT is recommended)
- CT enterography for evaluation of known inflammatory bowel disease (Abdomen/Pelvic imaging is recommended)

Vascular Disease (aneurysm, etc.) CTA or MRA may be preferred (Abdomen/Pelvic imaging is recommended unless the abnormality is localized to one body region)

- Vascular abnormality seen and indeterminate on other imaging studies
- Aortic Aneurysm and ultrasound is indeterminate or this is for preoperative planning
- Follow up after endograft repair and CTA is not also ordered

### Trauma

Suspected abdominal or retroperitoneal hemorrhage (limited to the upper abdominal cavity only)

Weight Loss (Abdomen/Pelvic imaging is recommended)

- Loss of 5% of body weight persisting for 6 months with initial evaluation of a chest x-ray, ultrasound, laboratory testing including TSH, and colon cancer screening (if over 50 years old) completed
- Loss of 10% of body weight in less than 2 months with at least one MD visit documenting weight loss

Pre/Post Procedural (limited to the upper abdominal cavity only)

- Pre-operative evaluation
- Post-operative for routine recommended follow up or for potential post-operative complications.
- A repeat study may be needed to help evaluate a patient's progress after treatment procedure
- intervention or surgery. The reason for the repeat study and that it will affect care must be clear.

### Other

- Evaluation of an abnormality seen on other imaging and the diagnosis remains uncertain
- For evaluation of a known or suspected ventral or incisional hernia
- High Risk - Any patient over 75 y/o or diabetic with persisting pain (not intermittent only) (Abdomen/Pelvic imaging is recommended)
- For the evaluation of suspected organomegaly when initial ultrasound has been completed

## ADDITIONAL INFORMATION

The above medical necessity recommendations are used to determine the best diagnostic study based on a patient's specific clinical circumstances. The recommendations were developed using evidence based

studies and current accepted clinical practices. Medical necessity will be determined using a combination of these recommendations as well as the patient's individual clinical or social circumstances.

- Tests that will not change treatment plans should not be recommended.
- Same or similar tests recently completed need a specific reason for repeat imaging.

#### REFERENCES USED FOR DETERMINATIONS

1. UpToDate, Diagnostic approach to abdominal pain in adults, <https://sites.ualberta.ca/~loewen/Medicine/GIM%20Residents%20Core%20Reading/ACUTE%20&%20CHRONIC%20ABDO%20PAIN/Diagnostic%20approach%20to%20abdo%20pain.htm>
2. American College of Radiology. (2014). ACR Appropriateness Criteria® Retrieved from <https://acsearch.acr.org/list>.
3. American Urological Association Education and Research, Inc. (2007). Prostate Cancer Guideline for the Management of Clinically Localized Prostate Cancer. Retrieved from <http://xa.yimg.com/kq/groups/21789480/1752048018/name/2007+Guideline+for+the+treatment+of+localized+prostate+cancer.pdf>
4. Jaffe, T.A., Gaca, A.M., Delaney, S., Yoshizumi, T.T., Toncheva, G., Nguyen, G., & Frush, D.P. (2007). Radiation doses from small-bowel follow through and abdominopelvic MDCT in Crohn's disease
5. Hirsch, A.T., Haskal, Z.J., Hertzner, N.R., Bakal, C.W., Creager, M.A., Halperin, J.L, Roegel, B. (2006). ACC/AHA 2005 guidelines for the management of patients with peripheral arterial disease (lower extremity, renal, mesenteric, and abdominal aortic): executive summary a collaborative report from the American Association for Vascular Surgery/Society for Vascular Surgery, Society for Cardiovascular Angiography and Interventions, Society for Vascular Medicine and Biology, Society of Interventional Radiology, and the ACC/AHA Task Force on Practice Guidelines (Writing Committee to Develop Guidelines for the Management of Patients With Peripheral Arterial Disease) endorsed by the American Association of Cardiovascular and Pulmonary Rehabilitation; National Heart, Lung, and Blood Institute; Society for Vascular Nursing; TransAtlantic Inter-Society Consensus; and Vascular Disease Foundation. *J Am Coll Cardiol.* 47(6):1239-312. Retrieved from <http://www.ncbi.nlm.nih.gov/pubmed/16545667>.
6. Israel G.M., Francis I.R., Roach M. III, Abdel-Wahab M, Casalino, D.D., Ciezki, J.P., . . . Sheth, S. (2009). Expert Panel on Urologic Imaging and Radiation Oncology-Prostate. ACR Appropriateness Criteria® pretreatment staging prostate cancer. American College of Radiology (ACR). 12. Retrieved from <http://www.guidelines.gov/content.aspx?id=15768>
7. Fenlon HM, Nunes DP, Schroy PC III, et al. A comparison of virtual and conventional colonoscopy for the detection of colorectal polyps. *N Engl J Med.* 1999; 341:1496-1503.
8. Bouras EP, Lange SM and Scolapio JS. Rational approach to patients with unintentional weight loss. *Mayo Clin Proc,* 2001; 76:923-929.
9. Talley NJ, Vakil N, and the Practice Parameters Committee of the American College of Gastroenterology. Guidelines for the management of dyspepsia. *American Journal of Gastroenterology,* 2005; 100:2324-2337.
10. McNamara MM, Lalani T, Camacho MA, Carucci LR, Cash BD, Feig BW, Fowler KJ, Katz DS, Kim DH, Smith MP, Tulchinsky M, Yaghamai V, Yee J, Rosen MP, Expert Panel on Gastrointestinal Imaging. ACR Appropriateness Criteria® left lower quadrant pain -- suspected diverticulitis [online publication]. American College of Radiology (ACR); 2014. 7p. <https://acsearch.acr.org/docs/69356/Narrative/>
11. Fulgham PF, Assimios DG, Pearle MS, Preminger GM. Clinical effectiveness protocols for imaging in the management of ureteral calculus disease: AUA technology assessment. American Urological Association Guideline, 2012.

12. Lakkaraju A, Sinha R, Garikipati R, Edward S, Robinson P. Ultrasound for initial evaluation and triage of clinically suspicious soft-tissue masses. Clin Radiol, 2009; 64: 615-621.
13. Song JH, Chaudry FS, Mayo-Smith WW. The incidental indeterminate adrenal mass on CT (> 10 H) in individuals without cancer: is further imaging necessary? Follow-up of 321 consecutive indeterminate adrenal masses. American Journal of Reontgenology, 2007, 189:1119-1123.
14. Song JH, Chaudry FS, Mayo-Smith WW. The incidental adrenal mass on CT: prevalence of adrenal disease in 1,049 consecutive adrenal masses in individuals with no known malignancy. American Journal of Reontgenology, 2008 May; 190:1163-1168.
15. Zhang BH, Yang BH, Tang ZY. Randomized controlled trial of screening for hepatocellular carcinoma. Journal of Cancer Research and Clinical Oncology, 2004, 130(7), 417-22.
16. Baker ME, Nelson RC, Rosen MP, Blake MA, Cash BD, Hindman NM, Kamel IR, Kaur H, Piorkowski RJ, Qayyum A, Yarmish GM, Expert Panel on Gastrointestinal Imaging. ACR Appropriateness Criteria® acute pancreatitis. Reston (VA): American College of Radiology (ACR); 2013. 11p.
17. Cohen RA, Brown RS. Microscopic hematuria. New England Journal of Medicine, 2003, 348, 2330-2338.
18. Martin SG MD, Chen RC MD, et al. Clinically Localized Prostate Cancer: AUA/Astro/SUO Guideline.
19. Fulgham PF, Assimos DG, Pearle MS, Preminger GM. Clinical effectiveness protocols for imaging in the management of ureteral calculous disease: AUA technology assessment.

CODING INFORMATION: THE CODES LISTED IN THIS POLICY ARE FOR REFERENCE PURPOSES ONLY. LISTING OF A SERVICE OR DEVICE CODE IN THIS POLICY DOES NOT IMPLY THAT THE SERVICE DESCRIBED OF CODES BY THIS CODE IS COVERED OR NON-COVERED. COVERAGE IS DETERMINED BY THE BENEFIT DOCUMENT. THIS LIST MAY NOT BE ALL INCLUSIVE.

CPT	Description
74150	CT (Computed Tomography) Abdomen without contrast)
74160	CT (Computed Tomography) Abdomen with contrast)
74170	CT (Computed Tomography) Abdomen without and with contrast)