	Clinical Protocol: Imaging	**SUBDEPARTMENT:** N/A
	POLICY NO.	**ORIGINAL EFFECTIVE DATE:** 12/01/2019
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TITLE OF POLICY: Abdominal Pain		

PROTOCOL OVERVIEW

- A detailed history and physical examination often are more helpful in establishing a diagnosis for acute **abdominal pain** with less risk to the patient than a premature and costly diagnostic evaluation.

- Early, appropriate general surgery consult may prevent both unnecessary studies and undue delay in care
- Older or immunocompromised patients may have atypical, subtle, or even absent clinical manifestations of disease.
- The more common diagnoses include:
    - Appendicitis
    - Gallbladder disease
    - Gastroenteritis
    - Diverticular disease
    - Intestinal obstruction

- Of patients presenting with acute **abdominal pain**, up to 33% will not result in a specific diagnosis.
    - When no cause is found, serious illness is unlikely, and the pain usually resolves.
    - Confirm timely follow-up if etiology is unclear.

INDICATIONS

<u>Clinical Indications for Imaging</u>

- Supine and upright films of the abdomen
    - Indicated to evaluate clinical suspicion of ANY ONE of the following:
        - Bowel obstruction
        - Viscus perforation or ischemia
        - Unexplained peritonitis
        - Renal colic
- Ultrasound of pelvis
    - Indicated to evaluate clinical suspicions of ANY ONE of the following:
        - Ectopic pregnancy
        - Equivocal cases of suspected acute appendicitis
        - Acute abdominal pain in young adult woman or pregnant woman
        - Ovarian enlargement or cysts

- Ultrasound of abdomen
    - Indicated to evaluate clinical suspicions of ANY ONE of the following:
        - Chronic cholecystitis, gallbladder-wall-thickening, or gallstones
        - Appendicitis as indicated by presence of ANY ONE of the following:
        - After surgical consultation
        - Atypical presentation
        - Pregnant woman or woman with risk of adnexal disease
        - Ectopic pregnancy
        - Ascites
        - Liver masses or enlarged liver
        - Acute abdominal pain in young adult woman and pregnant woman
        - Ovarian enlargement on physical exam
        - Renal colic if patient has contrast allergy or serum creatinine >2.0

- CT scan of abdomen
    - Indicated for abdominal pain when ANY ONE of the following is present:
        - Equivocal cases of suspected acute appendicitis (helical)
        - Palpable mass
        - History of malignancy
        - Diverticulitis with suspected abscess
        - Suspected intestinal ischemia
        - Suspected pancreatitis
        - Suspected leaking abdominal aortic aneurysm (AAA)
        - Suspected abdominal or pelvic abscess
        - Intestinal obstruction, when plain films cannot identify obstruction
        - Blunt or penetrating abdominal trauma

- Water-soluble GI contrast studies
    - Indicated for ANY ONE of the following (using water-soluble contrast):
        - Suspected perforation
        - Suspected partial intestinal obstruction
- Oral barium contraindicated for patient with suspected colonic obstruction
- Barium enema
    - Indicated for suspected colonic obstruction, when possible, perforation is not a concern
- Radioisotope scan, e.g., HIDA, PIPIDA
- Angiography
    - Indicated for selected patients when ALL of the following are present:
        - Dull, cramping midabdominal pain occurring 15 to 30 minutes after eating
        - Gradual weight loss
        - No other explanation for symptoms
- Magnetic resonance imaging
    - Not routinely used as a primary diagnostic tool

Clinical Indications for Referral

- Referral threshold depends on the specific condition diagnosed or suspected
- Refer for ANY ONE of the following:
    - Further evaluation of surgical abdomen
    - Suspicion of peritoneal irritation

- Persistent abdominal pain without explanatory diagnosis
- Significantly abnormal examination including ANY ONE of the following:
  - Localized tenderness
  - Abnormal rectal examination
  - Heme positive stools
  - Markedly abnormal bowel sounds

Clinical Indications for Hospitalization

- Emergent evaluation or management of 1 or more of the following: o Abdominal aortic aneurysm, abscess or dissection

  - Acute abdominal pain, and clinical suspicion of 1 or more of the following:
    - Acute cholecystitis, Hepatitis, Pancreatitis, Pelvic inflammatory disease, Pyelonephritis, Appendicitis, Bowel obstruction, Cholangitis, Diverticulitis, Ileus, Incarcerated hernia, Mesenteric ischemia, Ovarian torsion, Perforation, Testicular torsion, Volvulus
    - Diabetic ketoacidosis
    - Ectopic pregnancy
    - Intussusception
    - Ischemic bowel disease
    - Malignancy
    - Meckel diverticulum
    - Myocardial infarction
    - Nephrolithiasis
    - Pneumonia
    - Porphyria
    - Pulmonary embolism
    - Sickle cell crisis
    - Trauma
    - Uremia

  - Findings on imaging tests, including 1 or more of the following:
    - Abdominal free air
    - Bowel obstruction
    - Dilated biliary tree
    - Dilated small bowel loops

  - Findings on physical examination, including 1 or more of the following:
    - Abdominal pain out of proportion to examination
    - Altered mental status
    - Bloody, maroon, or melenic stool
    - Peritoneal signs
    - Vital sign abnormality

  - Severe “red flag” or “alarm” features including 1 or more of the following:
    - Fever
    - Light-headedness or syncope
    - Obstipation
    - Overt gastrointestinal blood loss
    - Recent surgery or endoscopic procedure

        - Vomiting or inability to maintain adequate oral intake

- Gastroenterology referral for revaluation or management of chronic abdominal pain and 1 or more of the following:
    - Clinical suspicion of **1 or more** of the following:
        - Chronic pancreatitis
        - Diverticulosis
        - Functional abdominal pain
        - Gastroparesis
        - Inflammatory bowel disease
        - Irritable bowel syndrome
        - Peptic ulcer disease

- Gynecology referral for evaluation or management of **1 or more** of the following:
    - Endometriosis
    - Gynecologic cancer
    - Pelvic inflammatory disease

- Hematology referral for evaluation or management of porphyria
- Interventional radiology referral for fine needle aspiration of suspected infected pancreatic necrosis
- Nephrology referral for evaluation or management of uremia
- Oncology referral for evaluation or management of malignancy
- Urology referral for evaluation or management of nephrolithiasis
- Vascular surgery referral for evaluation or management of abdominal aortic aneurysm

RECOMMENDED RECORDS

Please submit history and physical or progress notes that show the symptoms, exam findings, and any pertinent diagnostic tests that may have been done. (i.e. X-ray, ultrasound).

CITATION

MCG Care Guidelines 27th Edition, 2/28/2023 https://www.mcg.com/client-resources/news-item/mcg27th-edition-care-guidelines