

<b>Subject: MRI Abdomen (74181, 74182, 74183)</b>		<b>Original Effective Date:</b> 9/19/2017
<b>Policy Number: MCR: 639</b>	<b>Revision Date(s):</b>	
<b>Review Date: 9/19/2017, 12/19/18</b>		

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**DESCRIPTION OF PROCEDURE/SERVICE/PHARMACEUTICAL**

Abdomen MRI

**RECOMMENDATIONS**

MRI Imaging can be contraindicated in any of the following circumstances; there is a metallic body in the eye, for magnetically activated implanted devices such as pacemakers and defibrillators, insulin pumps, neurostimulators, and for some types of metal, and aneurysm clipping. The imaging facility should always be consulted with any compatibility questions as the types of metal used and development of MRI compatible devices is continually changing.

**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.

**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	MRI/CT if concern for conditions listed below
Right Lower Quadrant	MRI/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.

**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 and Pelvic imaging is recommended)
- MR enterography for evaluation of known inflammatory bowel disease (Abdomen and Pelvic imaging is recommended)

**Vascular Disease** (aneurysm, etc.) CTA or MRA may be preferred (Abdomen and 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 endograph repair and CTA or MRA is not also ordered

### Trauma

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

**Weight Loss** (Abdomen and 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)

### Indications for MRCP

***In most clinical indications, ultrasound is the imaging modality of choice for initial imaging.***

- For evaluation of known or suspected abnormality of the pancreaticobiliary tree. (E.g. pancreatic divisum, retained gall stone, etc.)
- For evaluation of chronic pancreatitis without known etiology
- For further evaluation of an indeterminate abnormality seen on prior imaging (ultrasound or CT)
- For patients who have had a failed ERCP and still require evaluation

#### Pre/Post Procedural

- 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.

#### **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**

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<b>CPT</b>	<b>Description</b>
<b>74181</b>	MRI (Magnetic Resonance Imaging) Abdomen without contrast)
<b>74182</b>	MRI (Magnetic Resonance Imaging) Abdomen with contrast)
<b>74183</b>	MRI (Magnetic Resonance Imaging) Abdomen without and with contrast)