

SECTION: Adult General Medical Emergencies

PROTOCOL TITLE: Medical – Abdominal Pain

REVISED: 06/2017

OVERVIEW:

Abdominal pain is one of the most common presenting complaints in emergency medicine. In nearly half the patients, the etiology remains obscure. Recalling the differences between generalized types of pain can be helpful diagnostically. Visceral abdominal pain results from stretching of the autonomic nerve fibers. The pain may be described as cramp like, colicky or gaseous and is often intermittent. Obstruction can be a serious cause of visceral pain. Somatic pain occurs when pain fibers located in the parietal peritoneum are irritated by chemical or bacterial inflammation. The pain is described as sharp, more constant, and more precisely located. Referred pain is any pain felt at a distance from a diseased organ. Referred pain generally follows certain classic patterns, for example, diaphragmatic irritation often radiates to the supra-clavicular area.

HPI	Signs and Symptoms	Considerations
<ul style="list-style-type: none"> • Age • Past medical, surgical history • Medications • Time of onset • Palliation, provocation • Quality (cramping, constant, sharp, dull, etc) • Region, radiation, referred • Severity (1 - 10) • Duration, repetition • Fever • Last meal • Last bowel movement, consistency • Menstrual history, pregnancy 	<ul style="list-style-type: none"> • Pain (location, migration) • Distension, rigidity • Unequal, absent femoral pulses • Diaphoresis • Orthostatic changes • Tenderness • Nausea, vomiting, diarrhea • Dysuria • Constipation • Vaginal bleeding, discharge • Pregnancy • Associated symptoms (helpful to localize source) • Fever, headache, weakness, malaise, myalgias, cough, mental status changes, rash 	<ul style="list-style-type: none"> • Pneumonia, HF • Pulmonary embolus • Liver (hepatitis) • Peptic ulcer disease, gastritis • Gallbladder • Myocardial infarction • Pancreatitis • Kidney stone • Abdominal aneurysm • Mesenteric Arterial Tear • Appendicitis • Bladder, prostate disorder • Pelvic (PID, ectopic pregnancy, ovarian cyst) • Spleen enlargement • Bowel obstruction • Gastroenteritis (infectious)

Protocol

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Continued

ABDOMINAL PAIN

	EMR	EMT	A	I	P
1. Perform general patient management.	●	●	●	●	●
2. Assess mechanism of injury and / or nature of illness.	●	●	●	●	●
3. Administer Oxygen to maintain <u>SPO₂</u> 94 - 99%	●	●	●	●	●
4. Allow the patient to lie in a comfortable position.	●	●	●	●	●
5. If shock is present, without pulsating masses, refer to <u>Shock protocol</u> .	●	●	●	●	●
6. Place patient on cardiac monitor and obtain a <u>12 lead ECG</u> if indicated.		●	●	●	●
7. Initiate IV of Normal Saline KVO.			●	●	●
8. Administer <u>ONDANSETRON</u> 0.1 mg / kg slow IVP over 2 - 5 minutes, max 4.0 mg per dose, as needed, per <u>Medical – Nausea/Vomiting</u> protocol.			●	●	●
9. Treat pain if indicated. Refer to <u>General – Pain Control</u> protocol.				●	●
10. Transport and perform ongoing assessment as indicated.		●	●	●	●

FOUR ABDOMINAL QUADRANTS

A Right Upper Quadrant
Liver and gallbladder
Pyloric sphincter
Duodenum
Head of pancreas
Right adrenal gland
Portion of right kidney
Hepatic flexure of colon
Portions of ascending and transverse colon

B Left Upper Quadrant
Left lobe of liver
Spleen
Stomach
Body of pancreas
Left adrenal gland
Portion of left kidney
Splenic flexure of colon
Portions of transverse and descending colon

C Right Lower Quadrant
Lower pole of right kidney
Cecum and appendix
Portion of ascending colon
Ovary and uterine tube
Right spermatic cord
Right ureter

D Left Lower Quadrant
Lower pole of left kidney
Sigmoid colon
Portion of descending colon
Ovary and uterine tube
Left spermatic cord
Left ureter

Midline
Aorta
Bladder
Uterus
○ = Umbilicus

NINE ABDOMINAL REGIONS

A Right Hypochondriac
Right lobe of liver
Gallbladder
Portion of duodenum
Hepatic flexure of colon
Portion of right kidney
Right adrenal gland

B Epigastric
Pyloric sphincter
Duodenum
Pancreas
Portion of liver
Aorta

C Left Hypochondriac
Stomach
Spleen
Tail of pancreas
Splenic flexure of colon
Upper pole of left kidney
Left adrenal gland

D Right Lumbar
Ascending colon
Lower half of right kidney
Portion of duodenum and jejunum

E Umbilical
Lower part of duodenum
Jejunum and ileum

F Left Lumbar
Descending colon
Lower half of left kidney
Portions of jejunum and ileum

G Right Inguinal
Cecum
Appendix
Lower end of ileum
Right ureter
Right spermatic cord
Right ovary and uterine tube

H Hypogastric (Pubic)
Ileum
Bladder
Uterus (in pregnancy)

I Left Inguinal
Sigmoid colon
Left ureter
Left spermatic cord
Left ovary and uterine tube

PEARLS:

1. Abdominal pain may be the first sign of an impending rupture of the appendix, liver, spleen, ectopic pregnancy, or aneurysm. Monitor for signs of hypovolemic shock.
2. If a pulsating mass is felt, suspect an abdominal aneurysm and discontinue palpation.
3. Abdominal pain in women of childbearing age should be treated as an ectopic pregnancy until proven otherwise.
4. Appendicitis can present with vague, periumbilical pain that migrates to the RLQ over time.
5. Kidney stones can present with flank pain that migrates to the lower quadrants.
6. Ask the patient to point to the pain. The further from the umbilicus the patient points, the more likely the pain is to be organic in origin.
7. Simple pain management techniques include speaking in calm, reassuring voice, and placing the patient in a position of comfort.

Protocol

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ABDOMINAL PAIN

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