A. Important to remember that abdominal pain can be caused by a large number of different disease processes. Organ systems that may be involved in abdominal pain include: esophagus, stomach, intestinal tract, liver, pancreas, spleen, kidneys, male and female genital organs, bladder, as well as referred pain from the chest that can involve the heart, lungs, or pleura. Abdominal pain may also be caused by muscular and skeletal problems.

B. There are a number of problems that present with abdominal pain that are life-threatening or may become life-threatening:
   - Myocardial infarction (especially in the diabetic or elderly patient)
   - Perforated stomach, gallbladder, or bowel
   - Gastrointestinal bleeding with pain – usually due to an ulcer
   - Hemorrhagic pancreatitis
   - Appendicitis
   - Diabetic ketoacidosis
   - Ruptured esophagus (this usually presents with chest pain)
   - Dissecting or ruptured abdominal aortic aneurysm
   - Certain toxic mushrooms ingestion and other toxic ingestion
   - Ectopic pregnancy

C. Abdominal pain emergencies can lead to death due to blood or fluid loss with resultant shock. There may also be severe electrolyte abnormalities that can cause dysrhythmias.

D. Maintaining adequate blood pressure with abdominal pain is important for patient outcome. Patients who are believed to be suffering from hemorrhage should have their systolic BP maintained to > 100 mmHg. Patients with suspected infection or sepsis should have their systolic blood pressure maintained to > 120 mmHg.

E. Consider 12-Lead EKG as indicated. Refer to 12-Lead EKG Procedure.

Basic EMT

A. Assess and manage airway
   1. Administer oxygen as needed to treat shock and/or respiratory distress
   2. Apply pulse oximeter and treat per pulse oximeter procedure

B. Evaluate patient’s general appearance, relevant history of condition and determine OPQRSTI and SAMPLE. Especially ask about recent surgeries, abnormal ingestion, previous trauma and related medical diseases.

C. Assess additional associated signs and symptoms:
   - Nausea / vomiting blood or coffee grounds
   - Constipation / diarrhea – black, tarry or bloody bowel movement
   - Problems with urination
   - Menstrual abnormality
   - Fever
   - Tenderness, rigidity, and presence/absence of bowel sounds
   - Cardiac-related symptoms – dyspnea, diaphoresis, SOB
D. Transport in position of comfort, preferable supine with knees flexed, unless there is respiratory distress

E. If patient does not wish to be transported, obtain orthostatic vital signs to assist in that decision. Refer to Orthostatic Vital Signs Procedure.

F. EMT’s may not give anything by mouth.

**Advanced EMT**

A. If there is concern about the possibility of blood or fluid loss, start saline lock or IV normal saline at keep open rate. If patient is hypotensive and symptomatic administer normal saline IV bolus:

- 250 – 500 ml for adults
- 20 ml/kg for pediatric patient (to a maximum of 500ml)
- Repeat boluses as needed to maintain blood pressure

B. Monitor ECG

C. Refer to Pain Management Protocol

D. Consider administration of PO antiemetic for nausea – Ondansetron hydrochloride (Zofran)

- Adult dose: 4 mg PO (oral disintegrating tablet)
- Pediatrics > 12 years of age and > 40 kg dose: 4 mg PO

**Paramedic**

A. Consider administration of IV antiemetic for nausea – Ondansetron hydrochloride (Zofran)

- Adult dose: 4 mg slow IVP (over 2-5 minutes) or IM (IM is option ONLY for adults)
- Pediatric weighing > 40 kg dose: 4 mg slow IVP
- Pediatric weighing < 40 kg dose: 0.1 mg /kg slow IVP
ABDOMINAL PAIN / NAUSEA VOMITING

- Assess and manage airway
- Maintain O2 SATs >95%
- Evaluate patient condition
- Monitor vital signs
- Obtain medical history
  - Nausea / Vomiting
  - Surgery
  - Trauma
- Reassure patient
- EMT's give nothing by mouth
- Transport in position of comfort

IV NS (bolus as needed to maintain perfusion)
- Monitor ECG
- Consider pain management protocol
- If nausea and vomiting present: administer ONDANSETRON (ZOFRAN)
  - Adults: 4MG PO - ORAL DISINTEGRATING TABLET

Pediatric dosages for:
ONDANSETRON (ZOFRAN)
- Patients > 40 KG 4MG SLOW IV PUSH or 4 MG PO ORAL DISINTEGRATING TABLET
- Patients < 40 KG 0.1MG/KG SLOW IV PUSH
- NO PO ODANSETRON (ZOFRAN) FOR PATIENTS < 12