Abdominal Pain Vomiting and Diarrhea

History
- Age
- Time of last meal
- Last bowel movement/emesis
- Improvement or worsening with food or activity
- Duration of problem
- Other sick contacts
- Past medical history
- Past surgical history
- Medications
- Menstrual history (pregnancy)
- Travel history
- Bloody emesis / diarrhea

Signs and Symptoms
- Pain
- Character of pain (constant, intermittent, sharp, dull, etc.)
- Distention
- Constipation
- Diarrhea
- Anorexia
- Radiation

Associated symptoms:
Fever, headache, blurred vision, weakness, malaise, myalgias, cough, headache, dysuria, mental status changes, rash

Differential
- CNS (increased pressure, headache, stroke, CNS lesions, trauma or hemorrhage, vestibular)
- Myocardial infarction
- Drugs (NSAID's, antibiotics, narcotics, chemotherapy)
- GI or Renal disorders
- Diabetic ketoacidosis
- OB-Gyn disease (ovarian cyst, PID, Pregnancy)
- Infections (pneumonia, influenza)
- Electrolyte abnormalities
- Food or toxin induced
- Medication or Substance abuse
- Psychological

	Consider Blood Glucose Analysis Procedure
B	12 Lead ECG Procedure
	IV or IO Access Protocol UP 6
P	Cardiac Montior
	Age Appropriate Diabetic Protocol AM 2/ PM 2 ***if indicated***
	Pain Control Protocol UP 11 ***if indicated***
	Age Appropriate Cardiac Protocol(s) ***if indicated***

Age Specific Blood Pressure indicating possible shock

Age 0 – 28 days: SBP < 60
Ages ≥ 1 month: SBP < 70
Age 1 – 9: SBP < 70 + (2*x* Age)

Ages 10 – 64: SBP < 90
Ages ≥ 65: SBP < 110

All ages Shock Index: HR > SBP

Serious Signs/ Symptoms Hypotension, poor perfusion, shock

YES

	IV or IO Access Protocol UP 6 Consider 2 Large Bore sites
A	**Normal Saline 500 mL Bolus** Repeat as needed Titrate SPB ≥ 90 mmHg **Maximum 2 L** **Peds: 20 mL/kg IV / IO** Repeat as needed Titrate to Age Appropriate SBP ≥ 70 + (2 x Age) **Maximum 60 mL/kg**
P	**Ondansetron 4 mg IV / IO / ODT / PO / IM Peds: 0.2 mg/kg Peds Maximum 4 mg** May repeat in 15 minutes
	Age Appropriate Hypotension/ Shock Protocol AM 5/ PM 3 ***if indicated***

NO

A	**Normal Saline IV TKO Or Saline Lock**
P	**Ondansetron 4 mg IV / IO / ODT / PO / IM Peds: 0.2 mg/kg Peds Maximum 4 mg** May repeat in 15 minutes

Monitor and Reassess

Notify Destination or Contact Medical Control

Universal Protocol Section

Abdominal Pain
Vomiting and Diarrhea

Abdominal pain is a common complaint encountered by EMS:

- Abdominal pain may arise from many organ systems including cardiac, pulmonary, endocrine, genitourinary, and renal systems
- Often 40 – 60% of abdominal complaints have no diagnosis after extensive testing in the emergency department so a diagnosis is very difficult in the pre-hospital setting. (It is difficult to know a seemingly minor complaint is not serious)

IV Fluid Volume:

- Once you reach initial bolus maximum doses (i.e. 2 L or 60 mL/Kg), if blood pressure not responding, or not ≥ target SBP, initiate vasopressor and continue fluid resuscitation with SBP or MAP target goal.

Nausea without vomiting:

- Nausea is stressful and uncomfortable. Medications for vomiting are also indicated for nausea without vomiting.
- Unconscious patients with nausea and vomiting should also be treated with antiemetics to decrease risk of aspiration.

Four patient populations which deserve special focus:

1. Elderly:

May signal significant morbidity and mortality in patients > 50 years of age.
Disease significance may be out of proportion to exam findings and presentation.
Vascular problems are seen more often.
Consider cardiac etiology and obtain ECG if warranted, upper abdominal pain or nausea with or without vomiting.

2. Immunocompromised:

HIV, Diabetes, Renal Failure, Transplant patients, Patients taking chronic steroids.
Patients in these categories may not process pain in the normal fashion. They may not have increase in HR or SBP.

3. Women of childbearing age:

Consider ectopic pregnancy until proven otherwise.

4. Pediatric:

Consider Blood Glucose Analysis as abdominal pain and N/V can be an initial sign of diabetes or DKA.

Stable versus unstable patient:

- Very important as the stable patient with undifferentiated abdominal pain may require only supportive care, anti-emetics and possibly pain medications.
- The unstable patient needs more directed therapy, which is typically driven by presentation and vital signs.

Universal Protocol Section

Pearls

- **Recommended Exam: Mental Status, Skin, HEENT, Neck, Heart, Lungs, Abdomen, Back, Extremities, Neuro**
- **Abdominal/ back pain in women of childbearing age should be treated as pregnancy related until proven otherwise.**
- **The diagnosis of abdominal aneurysm should be considered with abdominal pain, with or without back and/ or lower extremity pain or diminished pulses, especially in patients over 50 and/ or patients with shock/ poor perfusion. Notify receiving facility early with suspected abdominal aneurysm.**
- **Consider cardiac etiology in patients > 35, diabetics and/ or women, especially with upper abdominal complaints.**
- **Heart Rate: Tachycardia is one of the first clinical signs of dehydration and volume depletion and typically increases as dehydration becomes more severe.**
- **Nausea without vomiting should be treated like vomiting. Patient will benefit from symptom control with antiemetic even if not actively vomiting.**
- **Promethazine (Phenergan):**
  May cause sedative effects in pediatric patients and in ages ≥ 65, and the debilitated, etc.)
  When giving promethazine IV, dilute with 10 mL of normal saline and administer slowly as it can also harm the veins.
- Isolated vomiting in children is common but can be a sign of more serious pathology. Pyloric stenosis, bowel obstruction, and CNS processes (bleeding, tumors, or increased CSF pressures) all often present with vomiting.
- Vomiting and diarrhea are common symptoms, but can be the symptoms of uncommon and serious pathology such as stroke, CO poisoning, acute MI, new onset diabetes, diabetic ketoacidosis (DKA), and organophosphate poisoning. Maintain a high index of suspicion for serious patholgy.