# MANAGEMENT ALGORITHM FOR THE INITIAL EVALUATION OF PENETRATING ABDOMINAL TRAUMA

Prioritized management of airway, breathing, & fluid resuscitation (circulation) Penetrating wound to torso: Immediate transport to OR for Indications for immediate Yes laparotomy abdominal exploration? **→ ↓** NO Patient may be observed as needed for Neg Local wound exploration other injuries or discharged. Wounds should be debrided/cleaned & left open (+) or  $\bigvee$  Indeterm. Ex. lap is usually performed. Wounds suspected of being tangential, **GSW** extra-peritoneal, or limited to the liver Yes (RUQ) may be assessed by other **→** means **↓** NO Triple contrast CT YES SW to posterior flank or back? **→ V**NO Cohort: anterior abd. SW with To the OR for laparotomy or (+) or indet. LWE and no diagnostic laparoscopy. Occasionally, other evid. Of abd injury: **POS** SW that penetrate only into the liver or Acceptable evaluation: spleen with no extrav or other findings **→** CT abdomen or DPL may be managed non-operatively **♦** NEG YES Meets criteria for discharge DISCHARGE **V**NO

## **COMMENTS**

- Anterior torso= below nipple line, above inguinal lig.
- Posterior torso= below inf. scapular border, above gluteal crease

#### **Indications for Immediate Laparotomy Include:**

- ALL GSW to torso thought to penetrate peritoneum
- SW w/ obvious evisceration
- Patients with clinical evidence of shock
- Patients with clinical evidence of peritonitis or free air (KUB)
- Impalements
- Clearly (+) FAST exam in the ED
- ➤ A (+) LWE constitutes a wound that penetrates the superficial fascial layer. A (-) LWE constitutes a wound involving ONLY the skin and subcutaneous fat.
- ➤ Methods of adjunct assessment for GSW suspected of being tangential, extra-peritoneal, or solely involving the liver (in hemodynamically normal patients) by be evaluated using a combination of CT + diagnostic laparoscopy (OR)

### Patients Without Evidence of Injury Should Be Observed. CT-based Indications for Lap. Not Well Defined, but Include:

- Contrast extrav
- Free air, or any free intraperitoneal fluid (blood)
- Peri-colic or central retroperitoneal hematomas

#### Criteria for Positive CT:

- Any unexplained free intraperitoneal fluid
- Any free intraperitoneal air
- Obvious extravasation of intraluminal or intravascular contrast
- Mesenteric hematoma or hematoma adjacent to bowel
- Suspicion for diaphragmatic injury

## Discharge Criteria:

- Normal abdominal exam and DPL or CT studies clearly able to r/o intra-abd injury
- No evidence of non-specific inflammation (temp, WBC)
- Able to tolerate p.o.
- No significant change in hematocrit
- No other indications for continued hospitalization

Continued observation.

Laparotomy for conventional indications