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## Management of Solid Organ Injuries

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**Purpose:** To define a clinical pathway for the management of liver and/or splenic injuries, whether operative or non-operative

**Guidelines:**

- A. See Attachment A: Clinical Practice Guideline for Blunt Liver and Spleen Injury for the Adult Patient
- B. Splenic and/or liver injury with normal hemodynamics
  - a. Grade I – III spleen or liver injury with no to moderate hemoperitoneum and hemodynamically normal
    - i. Admit to the floor
    - ii. Utilize Low Grade Order Set
    - iii. Discharge criteria
      - 1. To home when hemodynamically normal for 36 hours and no change in abdominal exam for 36 hours
  - b. Grade IV – V
    - i. Includes extravasation and pseudoaneurysm or large hemoperitoneum
      - 1. Consult Vascular Surgery to evaluate for angiography
      - 2. Admit to ICU
      - 3. Utilize High Grade Order Set
    - ii. Discharge criteria
      - 1. Move to Low Grade Order Set
      - 2. To home when hemodynamically normal for 36 hours and no change in abdominal exam for 36 hours
    - iii. See Vascular Intervention Guideline
- C. Spleen and/or liver injury with instability at any time after initial fluid resuscitation:
  - a. If the patient is not a candidate for embolization or requires exploratory laparotomy for other acute injury, the patient should be taken to the OR.
- D. If splenectomy is required, administer vaccines on prior to discharge
  - a. Pneumococcus vaccine (Pneumovax)
  - b. Meningococcus vaccine
  - c. Haemophilus influenza vaccine
  - d. Vaccines are not required for patients who require embolization only

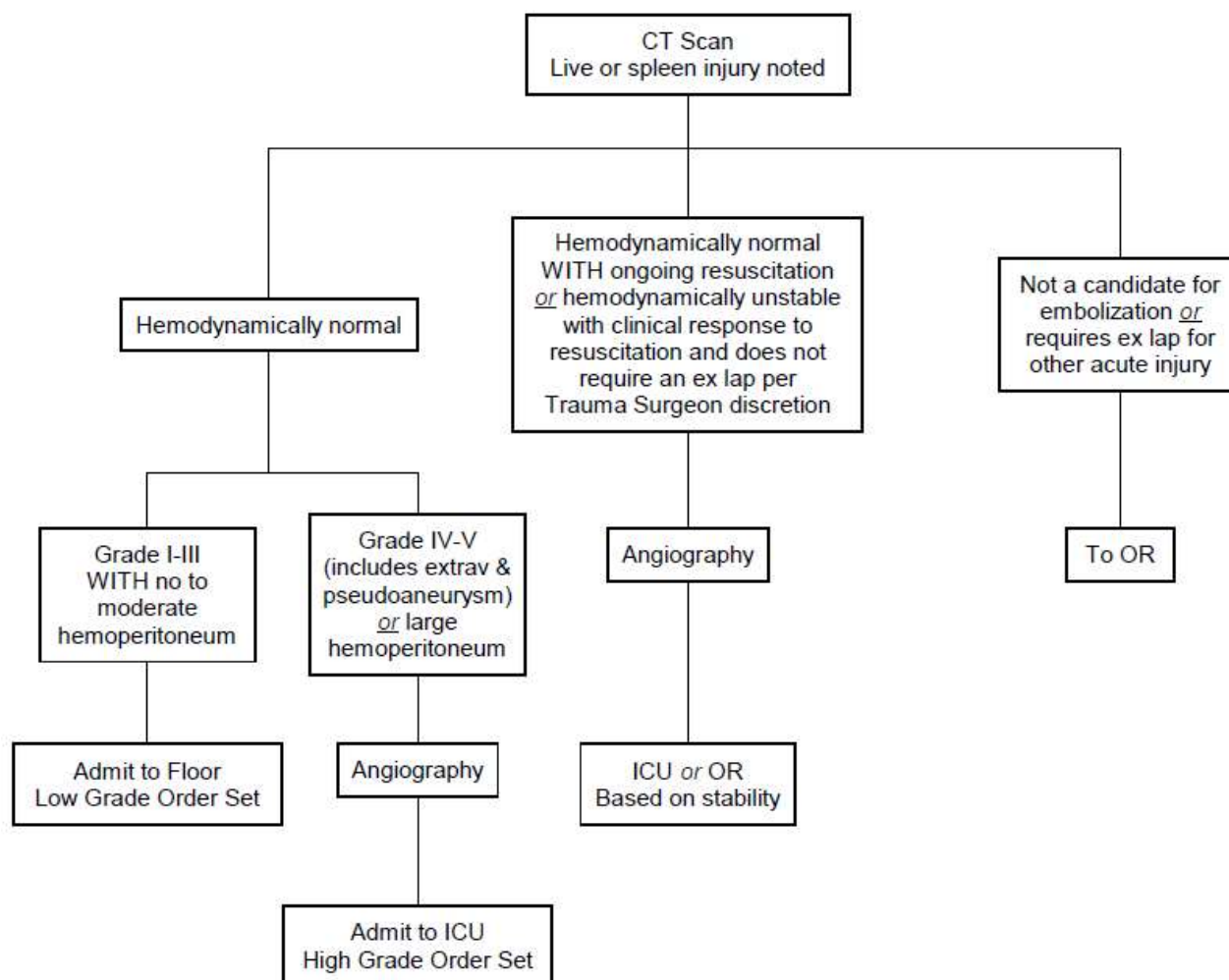
E. DVT Prophylaxis:

- a. SCD on admission
- b. Consider chemical DVT prophylaxis within 24 hours of admission or when Hgb stabilizes.

**References:**

- Christmas AB, Jacobs DG. Management of hepatic trauma in adults. *UpToDate*. Nov 24, 2015
- Maung AA, Kaplan LJ. Management of splenic injury in the adult trauma patient. *UpToDate*. Apr 27, 2016
- IU/Eskenazi, Level 1 Trauma Center Trauma Care Protocols and Management Guidelines. Division of Trauma, Critical Care and Emergency Surgical Services
- Stassen, et. al. EAST practice management guidelines work group. Selective nonoperative management of blunt splenic injury: An Eastern Association for the Surgery of Trauma practice management guideline. November 2012.
- Stassen, et. al. EAST practice management guidelines work group. Selective nonoperative management of blunt hepatic injury: An Eastern Association for the Surgery of Trauma practice management guideline. November 2012.
- Madbak F, Price D, Skarupa D, et al, Serial hemoglobin monitoring in adult patients with blunt solid organ injury: less is more. *Trauma Surg Acute Care Open* 2020;5:3000446

**Clinical Practice Guideline  
for Blunt Liver and Spleen Injury  
for the Adult Patient**



	Low Grade Order Set	High Grade Order Set
Vital signs	q2° x 4, then q4° x 24°	q2° x 4, then q4° x 24°
Urine output	q shift	q 4°
Lab	Hgb on admission and following day	Hgb on admission, 8 hrs after admission, then daily only at physician discretion
Activity	Up ad lib	Up in chair
Thresholds	Call MD for SBP < 90, HR > 120, significant change in abdominal exam	Call MD for SBP < 90, HR > 120, significant change in abdominal exam