ATOMAC

Blunt Pediatric Liver/Spleen Injury Guideline v11.0

Suspected Liver or Spleen Injury

Without peritonitis

Does surgeon suspect ongoing or very recent bleeding?

NO → Admit to non-ICU
Vitals q2h x 4 then q4h
T&S if close to Hb 7.0
Bed-rest overnight
Hb at 6 hrs
Hb at 12, 24 hrs post injury are optional unless clinically indicated by vitals or exam

→ symptomatic or Hb <7.0?

YES → 10mL/kg PRBC
NPO, Bed-rest
additional night
HB q6h

→ HB Stable x2?

NO → CT scan
Admit PICU, NPO
Hb q6h
Bed-rest until Hb stable
Consider embolization [3]

YES → Floor status
18 hrs
Regular diet
Ambulate

→ Home if:
Hb stable, vitals normal, tolerating diet, & minimal abdominal pain
Use caution if abdominal wall injury (handlebar injury or seatbelt sign)
Provide discharge instructions

NO → Floor status
18 hrs
Regular diet
Ambulate

YES → 20mL/kg
LR or NS

→ sustained response to LR or NS?

YES → CT scan
Admit PICU, NPO
Hb q6h
Bed-rest until Hb stable
Consider embolization [3]

NO → 10-20 mL/kg PRBCs
Consider other causes (head injury, tension pneumothorax, tampanode, pelvic hemorrhage) [1]
Consider Massive Transfusion Protocol

→ Recurrent hypotension
or lack of a sustained response to PRBCs?[2]

NO → 10-30mL/kg PRBC
NPO, Bed-rest
Hb q6h
consider embolization [3]

YES → Failure of NOM Algorithm

→ Is patient symptomatic or have Hb < 7.0?

NO → Floor status
18 hrs
Regular diet
Ambulate

YES → 10-30mL/kg PRBC
NPO, Bed-rest
Hb q6h
consider embolization [3]

→ Hb <7.0) or vital signs still unstable?

NO → Remain in PICU

→ Hb stable for 24 hours?

YES → Home if:
Hb stable, vitals normal, tolerating diet, & minimal abdominal pain
Use caution if abdominal wall injury (handlebar injury or seatbelt sign)
Provide discharge instructions

NO → Re-bleed or Continued bleed → Failure of NOM Algorithm

YES → Already given:
>40mL/kg PRBCs
or
>4 units PRBCs

NO → Failure of NOM Algorithm

YES → Failure of NOM Algorithm

Failure of NOM Algorithm → Angiography & Embolization / Surgery / NOM at surgeon's discretion

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