Victorian State Trauma System Guideline

Abdominal Trauma

TRAUMA VICTORIA

Make early contact with ARV for advice from the major trauma services and to initiate retrieval.

- Blunt and penetrating abdominal trauma have different care pathways.
- Delay in diagnosis and treatment of hollow viscous injury leads to an increase in mortality and morbidity.
- Indications for emergency laparotomy rely on haemodynamic instability.

Early Activation

- Gather vital information
- Activate Trauma Team
- Designate roles
- Set up to receive patient
- Ensure safety using PPE

Primary Survey

AIRWAY / C-SPINE

- Assess airway stability & protect as needed
- Be prepared for intubation
- Maintain full spinal precautions if suspected injury

BREATHING

- Identify & treat life threats
- Assess RR, work of breathing, SpO_2 & symmetry
- Oxygen therapy to maintain SpO_2 between 94-98%
- $ETCO_2$ monitoring if intubated, maintain btw 35-45mmHg

CIRCULATION

- Insert x 2 large bore IV cannulas
- IO access if required
- Assess HR / BP / Cap refill
- Initial management of hypovolaemia - crystalloid fluids, 20mL/kg, then consider blood products

DISABILITY

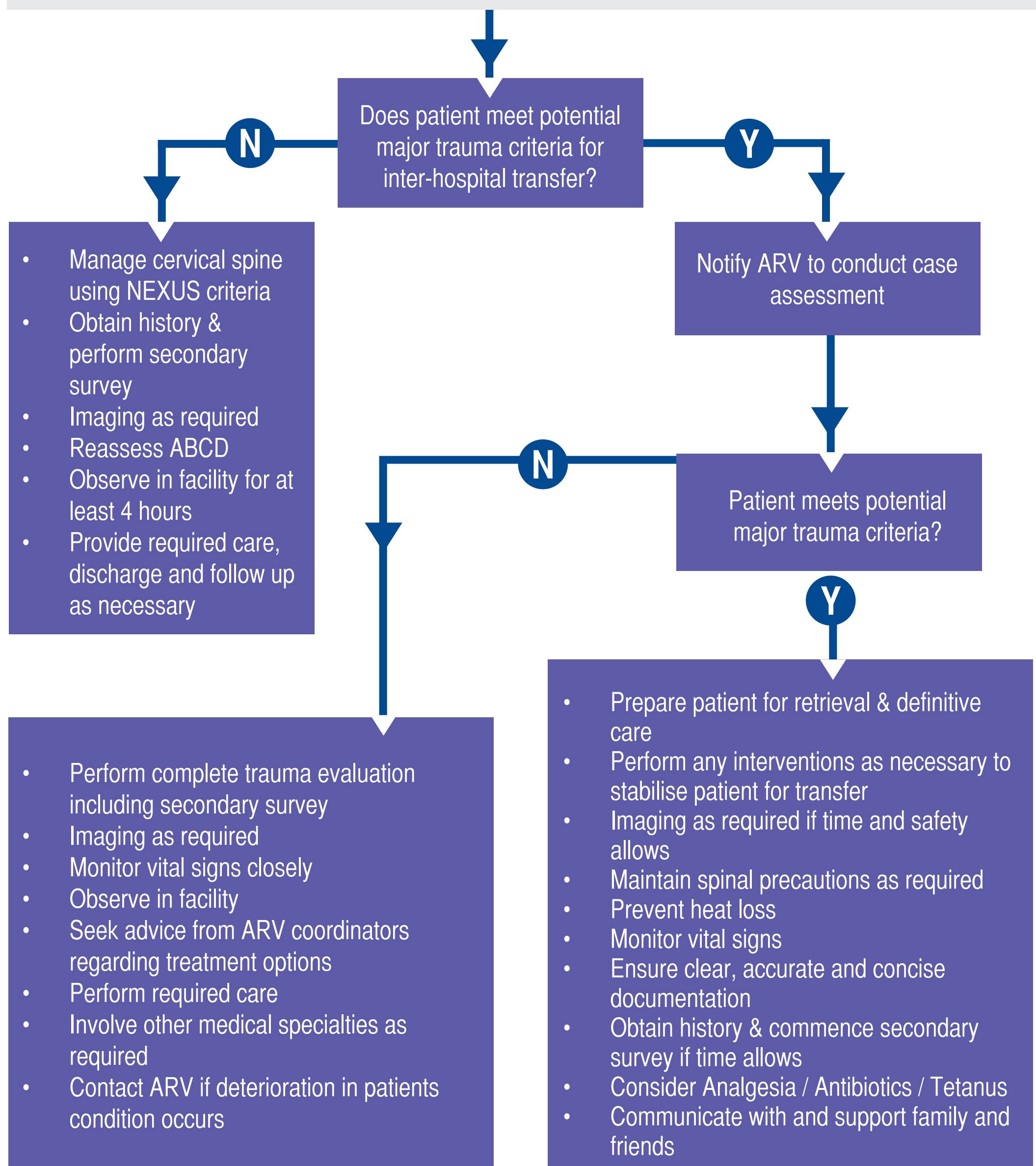
- Assess conscious level - AVPU
- Check pupils
- Test BSL

EXPOSURE / ENVIRONMENT

- Fully expose and inspect patient
- Prevent heat loss
- Log roll

ADJUNCTS

- FAST scan
- Analgesia
- X-ray: Chest, Pelvis
- Bloods – FBE, X-match, U&E, Lactate, ABG
- 12 lead ECG
- Orogastric tube if intubated
- Urinary Catheter
- AMPLE mnemonic



Key Points

Consult ARV early regarding management

- All penetrating abdominal injuries
- Known or suspected fractured pelvis
- Haemodynamic instability (BP<90)
- Seatbelt injury
- Rebound tenderness
- Abdominal distention or guarding
- Abdominal trauma with significant distracting injury
- Positive FAST
- Free air under the diaphragm
- Significant gastrointestinal hemorrhage

Management Considerations

Indications for emergency laparotomy

- +ve FAST + hypotension (SBP <90) not responding to resuscitation.
- Penetrating abdominal trauma + hypotension (SBP <90) not responding to resuscitation.
- Peritonism (significant abdominal tenderness on palpation, involuntary guarding, percussion tenderness).
- Free air under the diaphragm.
- GSW traversing peritoneum or retro peritoneum.

Imaging

- **FAST**
  - » Sensitivity approaching 96% in detecting >800mls blood.
  - » Positive results from a FAST scan warrant further investigation and management in accordance with the patient's clinical status.
- **CT abdo / pelvis**
  - » Allows haemoperitoneum to be identified and injuries graded.
  - » Permits evaluation of retroperitoneal structures including the kidneys, major blood vessels and bony pelvis.
  - » Contrast extravasation found on CT is a sign of active bleeding and is a strong predictor of failure of non-operative management.
  - » Where time and patient safety permits, CT prior to laparotomy. Unnecessary surgery may be avoided.

ARV Adult Retrieval Victoria

1300 36 86 61 Statewide 24 hours

28/07/2017 | Version 1.0 | Not applicable to Paediatric patients | Contact us: Trauma.Victoria@ambulance.vic.gov.au

AMBULANCE VICTORIA