High Bilateral Amputations and Dismounted Complex Blast Injury

Survival depends on

Hemorrhage Control • Massive Transfusion • Resuscitation

Stop the Bleed

- Open thoracic/abdominal aortic occlusion vs REBOA
- Vascular control distal to int/ext Iliac arteries if possible
- Extremity tourniquets prn during volume resuscitation
- Shunt/repair Iliac vein
- Shunt arterial injuries

GU injuries

- Hemorrhage control
- Debridement/irrigation
- Bladder repair/ Urinary diversion on subsequent operations.
- Preserve tissue for reconstruction

Initial Evaluation and Treatment

T – Tourniquets (TQ) on all injured extremities for hemorrhage control, pelvic binder for unstable pelvis –assess TQ effectiveness frequently

A – Access – Reliable Intravenous access for resuscitation – large bore (16 Ga or larger) IVs or supradiaphragmatic central venous access (8.5Fr cordis)

R – Resuscitate with blood - massive transfusion protocol – 8 units whole blood per above the knee amputation

O – Operative intervention

T – Temporize at index operation, damage control surgery only, shunt injured vessels to restore flow, temporary abdominal closure

Take back to OR planning – second debridement within 24 hours

Keep It Clean

- Debride devitalized tissue, remove gross contamination
- Proctoscopy/Flex Sig to rule out rectal injury. If clear injury, fecal diversion on next operations
- Temp abdominal closure
- Avoid long-term empiric broad spectrum antibiotics

Triage

requires assessment of:

- Multidisciplinary surgical teams
- Equipment
- Time
- Blood (re)supply capabilities
- Walking Blood Bank feasibility

Post Amputation Guidance

- Most distal level possible
- No guillotine/open circular amputations
- Debride non-viable soft tissue and bone
- Repeat within 24hrs. Then q 24-48hrs
- Coordinate debridement timing with evacuation schedule
- Prone positioning prn after pelvic stabilization
- Prophylactic fasciotomies due to warm time ischemia
- DVT/PE prophylaxis as soon as clinically feasible

- ✓ Pelvis stabilized in all LE amputations
- ✓ Temporary abdominal closure at first operation
- ✓ DRE/Proctoscopy documented with perineal/ perirectal penetrating wounds
- ✓ GU injuries: Conservation of tissue
- ✓ Second debridement within 24 hrs of initial debridement
- ✓ VTE prophylaxis within 24 hrs or documented contraindication

METRICS

This information is pulled from the evidence-based JTS High Bilateral Amputations and Dismounted Complex Blast Injury Clinical Practice Guideline (CPG). JTS CPGs can be found at the JTS CPG website or the JTS Deployed Medicine site.