

# Southern Illinois Regional EMS System

## DD-1 HYPOVOLEMIC HEMORRHAGIC SHOCK

### Definition:

- Cellular hypoxia due to a sustained perfusion deficit, caused by internal/external bleeding or volume loss.
  - Signs / Symptoms:
    - Tachycardia
      - Unless elderly or on beta blockers or digitalis.
    - Tachypnea
    - Mental status changes
      - Ranging from anxiety to loss of consciousness.
    - Cool, moist, and pale skin
    - Narrowing pulse pressure
    - Hypotension

### Management:

- Patient Assessment and Initial Care protocol
- Consider spinal immobilization
- Oxygen therapy as appropriate
  - 1-6 LPM by cannula: minimal distress.
  - 12-15 LPM by NRB mask: moderate/severe distress with signs of hypoxia.
  - 15 LPM by BVM: inadequate rate/effort, severe distress, unstable.
  - Maintain SpO<sub>2</sub> > 94%
- Control bleeding
  - Direct pressure
  - Pressure dressings
  - Hemostatic agent
  - If all unsuccessful: Tourniquet
- Initiate vascular access (2 IV/IO sites preferred)
  - Administer fluids in 200 mL increments to sustain SBP at 90 mm/Hg.
- Treat any additional injuries or conditions per appropriate protocol.
- Contact Medical Control and receiving hospital.

### ALS:

- If no response to IV fluids, Medical Control physician may consider:
  - Dopamine drip starting at **10 mcg/kg/min**.
  - Titrate to desired response (SBP 90-100 mm/Hg), not to exceed 20 mcg/kg/min.