

Initial Date: 5/31/2012 Revised Date: 06/01/2023

Shock

- 1. Assessment: Consider etiologies of shock and refer to specific types of shock/injury first if known: Anaphylaxis/Allergic Reaction-Treatment Protocol, Hemorrhagic Shock-Treatment Protocol, Pulmonary Edema/Cardiogenic Shock-Treatment Protocol
- 2. Follow General Pre-hospital Care-Treatment Protocol.
- Pediatric patients (< 14 years of age) utilize MI MEDIC cards for appropriate medication dosage. When unavailable utilize pediatric dosing listed within protocol.
- 4. Control major bleeding per **Bleeding Control (BCON)-Procedure Protocol**.
- 5. Remove all transdermal patches using gloves.
- 6. Prompt transport per MCA Transport Protocol.
- Special consideration

 a. If 3rd trimester pregnancy, position patient left lateral recumbent.
- 8. Obtain vascular access (in a manner that will not delay transport).
- S 9. Administer NS or LR fluid bolus IV/IO (refer to Vascular Access and IV Fluid Therapy-Procedure Protocol).
 - a. Adults: up to 1 liter wide open,
 - b. Pediatrics: up to 20 ml/kg based on signs and symptoms of shock
 c. Fluid should be slowed to TKO when SBP greater than 90 mmHg.
- S 10. Consider establishing a second large bore IV of **NS** or **LR** enroute to the hospital.
- 11. Obtain 12-lead ECG, if suspected cardiac etiology. (Per MCA selection, may be a BLS or Specialist procedure) follow 12 Lead ECG-Procedure Protocol.
 - 12. If accompanying head injury, refer to Head Injury-Treatment Protocol.
 - a. Maintain SpO2 \ge 90%
 - b. Maintain SBP > 90 mmHg < 140 mmHg
 - c. Do NOT hyperventilate.
- S 13. Hypotensive patients should receive additional IV/IO fluid boluses, as indicated by hemodynamic state (consider preparing epi push dose while administering second bolus)
 - a. Adults: repeat IV/IO fluid bolus to a maximum of 2 liters.
 - b. Pediatrics: repeat dose of 20 ml/kg to a maximum of 40 ml/kg
 - c. Monitor for pulmonary edema.
 - d. If pulmonary edema presents, stop fluids and contact Medical Control for direction.
- 14. If hypotension persists after IV/IO fluid bolus, administer epinephrine IV/IO by push dose (dilute boluses) while administering second fluid bolus.
 - a. Prepare (**epinephrine** 10 mcg/mL) by combining 1mL of 1mg/10mL **epinephrine** in 9mL **NS**, then
 - a. Adults:
 - i. Administer 10-20 mcg (1-2 mL epinephrine 10 mcg/mL) IV/IO
 - ii. Repeat every 3 to 5 minutes
 - iii. Titrate SBP greater than 90 mm/Hg.



Michigan GENERAL TREATMENT SHOCK

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b. Pediatrics:

- i. Administer 1 mcg/kg (0.1 mL epinephrine 10 mcg/mL) IV/IO
- ii. Maximum dose 10 mcg (1 mL)
- iii. Repeat every 3-5 minutes

Medication Protocols Epinephrine