Mountain Counties
EMERGENCY MEDICAL SERVICES AGENCY

POLICIES AND PROCEDURES

POLICY: 555.41
TITLE: Pediatric Non-Traumatic Shock

EFFECTIVE: ~~02/01//2026~~DRAFT
REVIEW: ~~02/2028~~DRAFT
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

PEDIATRIC NON-TRAUMATIC SHOCK

I. AUTHORITY
Health and Safety Code, Division 2.5, California Code of Regulations, Title 22, Division 9

II PURPOSE
To serve as a patient treatment standard for EMRs, EMTs, AEMT~~'s~~ and Paramedics within their scope of practice.

III. PROTOCOL
History may include: GI bleeding, vomiting, diarrhea, allergic reaction, and septicemia.

Physical signs: collapsed peripheral/neck veins, confusion, cyanosis, thready pulse pale/cold/clammy/mottled skin, rapid respirations, anxiety.

NOTE: DECREASED BLOOD PRESSURE IS A LATE SIGN OF SHOCK.

Provider Key: F = First Responder/EMR E = EMT O = EMT Local Optional SOP
P = Paramedic A=Advanced EMT D = Base Hospital Physician Order Required

	F	E	O	A	P	
ASSESSMENT	X	X	X	X	X	
BLS AIRWAY: okay if airway patent. Support ventilations with appropriate airway adjuncts.	X	X	X	X	X	
SUPRAGLOTTIC AIRWAY: if GCS is < 8 and not rapidly improving, consider SGA.			X	X	X	
PULSE OXIMETRY: apply and monitor.		X	X	X	X	
CAPNOGRAPHY: apply and monitor if SGA has been placed.					X	
OXYGEN: 100% by non-rebreather mask or blow-by.	X	X	X	X	X	
ECG MONITOR: lead placement may be delegated. Treat as indicated.					X	
VASCULAR ACCESS: IV/IO, rate as indicated.				X	X	
FLUID BOLUS: NS 20 mL/kg as indicated. Reassess after each bolus. Repeat if necessary and administer 10ml/kg bolus to a MAX. of 40ml/kg.				X	X	
TEST FOR GLUCOSE		X	X	X	X	
ORAL GLUCOSE: 15 GM. Consider if conscious with an intact gag reflex and if blood sugar < 70 mg/dL.		X	X	X	X	
D10: 2-4 mL/kg IV/IO if blood sugar < 70 mg/dL for age > 28 days old or 2 mL/kg IV/IO if blood sugar < 40 mg/dL age ≤ 28 days old. Recheck blood glucose and repeat as indicated.				X	X	
GLUCAGON: If no IV/IO access and unable to tolerate oral glucose, give 0.05				X	X	

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mg/kg IM (max 1 mg) if blood glucose < 70 mg/dL. Recheck blood glucose 10 minutes post injection. If blood glucose remains < 70 mg/dL, repeat dose.						

	F	E	O	A	P	
CONSIDER						
PUSH DOSE EPINEPHRINE: To treat hypotension refractory to fluid. • Draw up patient 0.01 mg/kg code dose 1:10,000 (0.1 mg/mL) epi • In same syringe, draw the necessary quantity of NS to total 10 mL • Label the syringe with "epi" and the calculated concentration in mcg/mL • Give 1 mL (1 mcg/kg) every 1 – 2 minutes and titrate to age appropriate SBP.					X	
EPINEPHRINE DRIP: To treat hypotension refractory to fluid. 0.1-1 mcg/kg/min mix 1 mg of Epi 1:1,000 (1 mg/mL) in 250mL. Titrate to age-appropriate BP. **Monitor IV/IO site q 5 minute for extravasation.** • 2mcg/min drip = 30 gtt/min (mL/hr) • 3mcg/min drip = 45 gtt/min (mL/hr) • 4mcg/min drip = 60 gtt/min (mL/hr) • 5mcg/min drip = 75 gtt/min (mL/hr) • 6mcg/min drip = 90 gtt/min (mL/hr) • 7mcg/min drip =105 gtt/min (mL/hr) • 8mcg/min drip=120 gtt/min (mL/hr) • 9mcg/min drip=135 gtt/min (mL/hr) • 10mcg/min drip=150 gtt/min (mL/hr)					X	

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Consider Causes:

- Cardiogenic, Distributive or Hypovolemic Shock - IV fluid boluses
- Hypoxia - hyperventilate
- Anaphylaxis - refer to 555.42 PEDIATRIC ALLERGIC REACTION ANAPHYLAXIS
- 555.51 PEDIATRIC POISONING
- 555.53 PEDIATRIC OVERDOSE

Pediatric Normal Vital Signs

Age	HR	RR	BP	Temp (C)	Temp (F)
Premie	120-170	40-70	55-75/35-45	36-38	96.8-100.4
0-3 months	100-160	35-60	65-85/45-55	36-38	96.8-100.4
3-6 months	90-120	30-45	70-90/50-65	36-38	96.8-100.4
6-12 months	80-120	25-40	80-100/55-65	36-38	96.8-100.4
1-3 years	70-110	20-30	90-105/55-70	36-38	96.8-100.4
3-6 years	65-110	20-25	90-110/60-75	36-38	96.8-100.4
6-12 years	65-100	14-22	90-120/60-75	36-38	96.8-100.4
12+	55-100	12-20	100-135/65-85	36-38	96.8-100.4