

POLICY: 555.42
TITLE: Pediatric Allergic Reaction - Anaphylaxis

EFFECTIVE: 09/01/2026
REVIEW: 8/2028
SUPERCEDES:

APPROVAL SIGNATURES ON FILE IN EMS OFFICE

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PEDIATRIC ALLERGIC REACTION - ANAPHYLAXIS

- 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, AEMTs, and Paramedics within their scope of practice.
- III. PROTOCOL

**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	D
ASSESSMENT	X	X	X	X	X	
REMOVE ALLERGEN: (i.e., bee stinger) & apply ice to site if indicated.	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: if pulse oximetry < 94% or signs of respiratory distress or hypoperfusion.	X	X	X	X	X	
ECG MONITOR: lead placement may be delegated. Treat as indicated.					X	
VASCULAR ACCESS: IV/IO, rate as indicated. Consider second IV/IO access.				X	X	
FLUID BOLUS: 20 mL/kg fluid boluses as indicated. Reassess after each bolus. Repeat if necessary and administer 10ml/kg bolus to MAX of 40 ml/kg.				X	X	
MILD or MODERATE REACTION (rash, swelling, wheezing)						
APPROVED BETA-2 AGONIST: choose ONE of the following beta-2 agonists (consider availability or need to reduce aerosol-generating procedure to decide). ALBUTEROL: 2.5 mg via nebulizer for wheezing patients. If patient has SGA placed, administer through aerosol holding chamber of SGA. LEVALBUTEROL: 1.25 mg via nebulizer.				X	X	
IPRATROPIUM: via nebulizer, 250 mcg if < 20 kg or 500mcg if ≥ 20 kg.					X	

	F	E	O	A	P	D
EPINEPHRINE: < 30 kg administer 0.15 mg of 1:1000 (1 mg/mL) IM. > 30 kg administer 0.3 mg of 1:1,000 (1 mg/mL) IM. For all weights repeat dose may be given every 5-15 minutes as needed for respiratory distress or persistent wheezing.			X	X	X	
EPINEPHRINE: auto-injector < 30 kg administer 0.15 mg of 1:1000 (1 mg/mL) IM. > 30 kg administer 0.3 mg of 1:1,000 (1 mg/mL) IM. For all weights repeat dose may be given every 5-15 minutes as needed for respiratory distress or persistent wheezing.		X	X	X	X	
DIPHENHYDRAMINE: 1 mg/kg IV/IO/IM with a maximum dose of 50 mg.					X	
SEVERE REACTION (hypotension, severe respiratory depression, oral swelling, altered mental status, chest tightness)						
EPINEPHRINE: 0.01 mg/kg of 1:10,000 (0.1 mg/mL) IV/IO with a maximum single dose of 0.1 mg. Repeat every 5 minutes as needed for respiratory distress and poor perfusion. If no IV/IO access, administer 0.01 mg/kg of 1:1,000 IM with a maximum single dose of 0.5 mg.					X	
DIPHENHYDRAMINE: 1 mg/kg IV/IO/IM with a maximum dose of 50 mg.					X	
APPROVED BETA-2 AGONIST: choose ONE of the following beta-2 agonists (consider availability or need to reduce aerosol-generating procedure to decide). ALBUTEROL: 2.5 mg via nebulizer for wheezing patients. If patient has SGA placed, administer through aerosol holding chamber of SGA. LEVALBUTEROL: 1.25 mg via nebulizer.				X	X	
NEEDLE CRICOTHYROTOMY: if unable to ventilate with SGA - Quicktrach Child device for patients 10-35 kg (22-77lbs). - Quicktrach device for patients > 35 kg (> 77lbs). 14 – 18G catheter for patients < 10kg (< 22lbs). Ventilate with high flow oxygen.					X	
PUSH DOSE EPINEPHRINE: - 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 (1mcg/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 in 250 mL. 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

Pediatric Normal Vital Signs

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