EMS Pediatric Protocols

Protocol Title: Pediatric Cardiac Problems
Original Adoption Date: 12/16/2016

Past Protocol Updates
Date of Most Recent Update:
Medical Director Chad Torstenson M.D.

Bradycardia With a Pulse

Identify and Treat Underlying Cause
- Maintain patent airway, assist breathing as necessary
- Give oxygen if indicated
- Identify cardiac rhythm
- Obtain vitals
- IV/IO Access
- Do not delay therapy for 12-lead

Cardiopulmonary Compromise?
- Hypotension
- Altered Mental Status
- Signs of Shock

CPR if HR <60/min
With poor perfusion despite oxygenation and ventilation.

Bradycardia Persists?
- Epinephrine 0.01 mg/kg IV/IO
- Atropine 0.02 mg/kg (may repeat once) for increased vagal tone or primary AV Block
- Consider pacing
- Treat underlying causes

If pulseless arrest develops, refer to pediatric Cardiopulmonary Arrest Protocol

Consider fluid bolus 20 ml/kg IV/IO when no evidence of poor cardiac function.
Tachycardia With a Pulse

Identify and Treat Underlying Cause
- Maintain patent airway, assist breathing as necessary
- Give oxygen if indicated
- Identify cardiac rhythm
- Obtain vitals
- IV/IO Access
- Do not delay therapy for 12-lead

Evaluate QRS Duration
- Narrow (≤ 0.09 sec)
- Wide (> 0.09 sec)

Evaluate 12-lead or monitor

Probable sinus tachycardia
- Compatible history with known cause
- P waves Normal
- Variable R-R
- Constant PR
- Infants <220/min
- Children <180/min

Search and Treat Cause

Probable supraventricular tachycardia
- Compatible history of abrupt rate change
- P waves absent / abnormal
- HR not variable
- Infants >220/min
- Children >180/min

Consider Vagal Maneuvers

Possible ventricular tachycardia

Cardiopulmonary Compromise?
- Hypotension
- Altered Mental Status
- Signs of Shock

Synchronized Cardioversion
- Begin 0.5-1 J/kg
- Increase to 2 J/kg

Consider adenosine (First Dose 0.1 mg/kg, Second dose 0.2 mg/kg) if regular rhythm and QRS monomorphic

Expert Consultation Advised
- Amiodarone 5 mg/kg over 20-60 minutes

If IV/IO access, give Adenosine
If IV/IO not available, or Adenosine ineffective, Synchronized Cardioversion.