PC03 Pediatric Bradycardia

Objectives:
- Early recognition and management of pediatric bradycardia

General Information:
- Signs and symptoms of cardiorespiratory compromise
  a) Increased work of breathing
  b) Altered mental status
  c) Cyanosis
  d) Poor perfusion and loss of peripheral pulses
- Consider and treat possible causes:
  a) Hypovolemia
  b) Hypoxia
  c) Acidosis (Hydrogen ions)
  d) Hypo/hyperglycemia
  e) Hypo/hyperkalemia
  f) Hypo/hyperthermia
  g) Tension pneumothorax
  h) Toxins
  i) Tamponade
  j) Thrombosis (coronary or pulmonary)
  k) Trauma
- Epinephrine:
  a) IV/IO 0.01 mg/kg (1:10,000 0.1ml/kg) every 3-5 minutes
  b) ETT 0.1 mg/kg (1:1000 0.1 ml/kg added to 2-5 ml NS max of 10 ml of fluid)
- Atropine
  a) 0.02 mg/kg IV/IO, minimum dose 0.1 mg, max dose 0.5 mg
  b) May be repeated once on standing order
- Pacing
  a) Set rate to 100 bpm
  b) Increase milliamps until electrical capture; final mA setting should be slightly above where electrical capture is obtained to prevent loss of capture
  c) Verify mechanical capture

Warnings/Alerts:

- Too small doses of atropine produce a paradoxical bradycardia; therefore, a minimum dose of 0.1 mg is recommended.
- Atropine and pacing are preferred over epinephrine if the patient has existing heart disease (cardiomyopathy or myocarditis, for example) – contact medical control for guidance.

OMD Notes:

References:
AHA Pediatric Advanced Life Support Provider Manual, 2006, p. 123-125

Performance Indicators:

Onset of Symptoms (time) Treatment and Response Vital Signs – 2 set minimum
LOC Pacing Parameters

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