



Pediatric Pulseless Arrest

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INFANT CPR

CHILD CPR

- Perform chest compressions with minimal interruptions (≤10 secs) using either the heel-of-1-hand technique or 2 thumb-encircling hands technique
- Rate: 100-120/min
- Depth: 1/3 diameter of the chest (approx. 1 ½")
- Compression/ventilation ratio:
 - 1 rescuer: 30:2
 - 2 rescuer: 15:2
- Perform CPR during AED/defibrillator charging & resume CPR immediately after shock

- Perform chest compressions with minimal interruptions (≤10 secs)
 - 1 or 2 hand compressions
- Rate: 100-120/min
- Depth: 1/3 diameter of the chest (approx. 2")
- Compression/ventilation ratio:
 - 1 rescuer: 30:2
 - 2 rescuer: 15:2
- Perform CPR during AED/defibrillator charging & resume CPR immediately after shock

DEFIBRILLATION & OVERALL MANAGEMENT

ADVANCED AIRWAY MANAGEMENT

- Analyze rhythm & check pulse after every 2 min CPR cycle
- AED detail:
 - Use child pads, if available, for infants & children <8 years old
 - If child pads not available, use adult pads, make sure pads do not touch each other or overlap
 - Adult pads deliver a higher shock dose, but a higher shock dose is preferred to no shock
- Manual defibrillation detail (**AEMT II**):
 - Initial dose: 2 J/kg, subsequent doses: 4 J/kg
- Movement of pt may interrupt CPR or prevent adequate depth and rate of compressions
- Consider resuscitation on scene up to 20 mins

- Consider/establish advanced airway (LALS only) at appropriate time during resuscitation
- Do not interrupt chest compressions to establish an advanced airway
- Waveform capnography shall be used on all pts with an advanced airway in place
 - An abrupt increase in PETCO₂ is indicative of ROSC
 - Persistently low PETCO₂ levels (<10 mmHG) suggest ROSC is unlikely

TREAT REVERSIBLE CAUSES

TERMINATION OF RESUSCITATION

- Hypovolemia
 - Hypoxia
 - Hydrogen Ion (acidosis)
 - Hypo-/hyperkalemia
 - Hypothermia
 - Tamponade, cardiac
 - Tension pneumothorax
 - Thrombosis, pulmonary
 - Thrombosis, cardiac
 - Toxins
- ① Refer to Hypothermia & Avalanche/Snow Immersion Suffocation Resuscitation Protocol (E-2) or Traumatic Pulseless Arrest Protocol (T-6) as appropriate
- ① Contact the base/modified base hospital for consultation & orders as appropriate
- ① Consider early transport of pts who have reversible causes that cannot be adequately treated in the prehospital setting

- Base/Modified Base Hospital Physician Order Only**
- If non-shockable rhythm persists, despite appropriate, aggressive ALS interventions for 30 mins (or if EtCO₂ is <10 mm Hg after 20 mins in a pt with an advanced airway), consider discontinuation of CPR

SEE PAGE 2 FOR TREATMENT ALGORITHM



Pediatric Pulseless Arrest

BLS

- CPR (with BVM & 100% O₂) x 2 mins - apply AED as soon as possible
- Deliver **AED SHOCK**, if indicated, & immediately resume CPR
- Analyze rhythm/check pulse after every 2 min CPR cycle

LALS

Cardiac & EtCO₂
Monitoring
(AEMT II)

ASYSTOLE/PEA

VF/VT

DEFIBRILLATION

IV/IO NS (may bolus 20 mL/kg)

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Shockable
Rhythm?

YES

Treat
VF/VT

NO

- **Epinephrine 1:10,000 (AEMT II)**
 - IV/IO: 0.01 mg/kg
 - Repeat every 3-5 mins for continued/relapsed pulseless arrest

NO

Treat
Asystole/
PEA

YES

DEFIBRILLATION

NO

Shockable
Rhythm?

YES

- **DEFIBRILLATION** every 2 mins for continued/relapsed shockable rhythm
- **For VF/VT refractory to defibrillation: Epinephrine 1:10,000 (AEMT II)**
 - IV/IO: 0.01 mg/kg
 - Repeat every 3-5 mins for continued/relapsed pulseless arrest
- **For VF/VT refractory to defibrillation & Epinephrine: Lidocaine (AEMT II)**
 - IV/IO: 1-1.5 mg/kg
 - Repeat x 2: IV/IO 0.5-0.75 mg/kg every 5 mins for continued/relapsed VF/VT (max total cumulative dose: 3 mg/kg)
- If narcotic OD suspected:
 - **Naloxone**
 - 0.1 mg/kg IV/IO (max: 2 mg)