INITIAL ASSESSMENT
- Assess for scene safety
- Assess for appearance, WOB, and circulation
- Check responsiveness

PRIMARY ASSESSMENT
A.B.C.D.E.

SECONDARY ASSESSMENT
S.A.M.P.L.E.

1 BRADYCARDIA

p. 244

2 Persistent Bradyarrhythmia causing:
- Acute altered mental status
- Signs of Shock
- Hypotension

No → **9**
- Support ABCs
- Consider oxygen
- Observe
- 12-Lead ECG
- Identify and treat underlying causes

Yes → **3 Assessment & Support**

A - maintain **airway** patency
B - assist **breathing** with PPV and oxygenation as necessary
C - cardiac monitor to identify rhythm: monitor pulse, BP, and oximetry

4 **Start CPR** if HR <60/min despite oxygenation and ventilation

5 Bradycardia Persists?
No → back to 9
Yes →

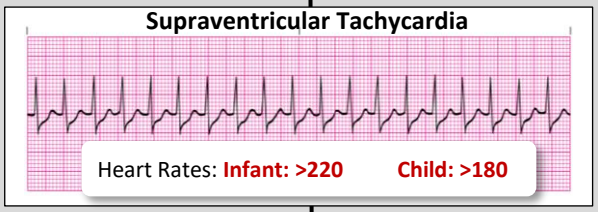
6
- Continue CPR if HR <60/min
- IV/IO access
- **Epinephrine 0.01 mg/kg** (0.1 mg/mL concentration every 3-5 mins.
- **Atropine 0.02 mg/kg** May repeat once. Max. dose 0.1 mg. Max. single dose is 0.5 mg
- Consider **Transcutaneous pacing**
- Identify and treat underlying causes ***(Hypoxemia, Hypothermia, Toxins/Meds)***

7 Check pulse every 2 mins — Pulse present?
Yes → back to 5
No → **8** Go to Pediatric **Cardiac Arrest** Algorithm p. 89

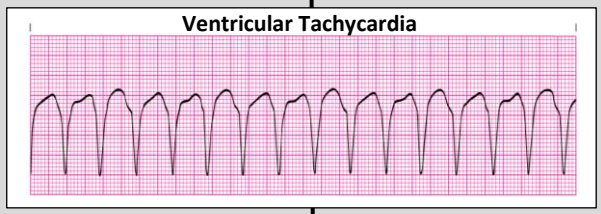
1 TACHYCARDIA

p. 257

Supraventricular Tachycardia



Ventricular Tachycardia



2 Cardiopulmonary compromise?
- Acute altered mental status
- Signs of Shock
- Hypotension

No →

3 Vagal maneuvers
If narrow QRS only

4
- **Adenosine rapid IV push**
  First dose: 0.1 mg/ kg (max of 6 mg)
  Second dose: 0.2 mg/kg (max of 12 mg)
  Use 2-syringes for each dose followed with a rapid flush of 5-10 mL NR/LR
- *Consider Adenosine if VT is regular and monomorphic*
- *Expert consultation is advised before additional drug therapies*
- **Amiodarone** 5 mg/kg load over 20-60 mins. (max 300 mg). Repeat to max daily dose of 15 mg/kg (2.2 g in adolescents)

Yes →

6 Synchronized Cardioversion
0.5-1 J/kg max of 2 J/kg
- Sedate if needed but don't delay cardioversion
- If IV/IO access is present for SVT, consider Adenosine before cardioversion

5 Expert consultation

Based on PALS AHA Guidelines 2020

FOR PALS NOTES ONLY

Cardiac Arrest

1 START CPR p. 89
- Begin BMV and give Oxygen
- Apply monitor/defib pads

Rhythm Shockable?

Shockable path

2 VF/pVT

3 Defibrillate **2 J/kg**

4 CPR 2 mins
- IV/IO access

Rhythm Shockable?

5 Defibrillate **4 J/kg**

6 CPR 2 mins
- **Epinephrine 0.01 mg/kg IV/IO** every 3-5 mins
- Consider advanced airway

Rhythm Shockable?

7 Defibrillate **≥4 J/kg** maximum of 10 J/kg

8 CPR 2 mins
- **Amiodarone 5 mg/kg IV/IO** bolus. If refractory, may repeat up to **3 total doses** (max. 300 mg). May repeat to daily max. 15 mg/kg (2.2 g in adolescents).
- **Lidocaine 1 mg/kg IV/IO** bolus loading dose. Maintenance: 20-50 mg/kg per min
- If Torsades give **Magnesium 25-50 mg/kg** IV/IO bolus, max. 2 g.

Treat reversible causes

Non-shockable path

9 Asystole/PEA


Give **Epinephrine** ASAP

10 CPR 2 mins
- **Epinephrine 0.01 mg/kg IV/IO** every 3-5 mins
- Consider advanced airway

Rhythm Shockable?

11 CPR 2 mins
- Treat reversible causes

Rhythm Shockable?

Rhythm check

12
- If no ROSC, go to 10
- If ROSC, go to Post-Cardiac Arrest Care checklist

Go to 5 or 7

ROSC p. 271

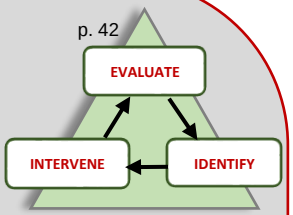
13

1. **Optimize Ventilation & Oxygenation**
   - Manage Respiratory Parameters: give 20-30 breaths/min, SpO_2 94-99%, PCO_2 35-45 mm Hg or target appropriate to condition
   - Manage Airway: ETT placement
2. **Assess for & Treat Persistent Shock**
   - Identify and treat contributing factors: H&Ts
   - Consider **20 mL/kg IV/IO NS/LR or 10 mL/kg IV/IO** NS/LR if poor cardiac function
   - Consider the need for inotropic and/or vasopressor support for fluid-refractory shock
3. If ALOC initiate **TTM (Targeted Temp. Management)**
   Induce hypothermia to **32-34°C for 48 hours followed by 3 days of normothermia** or 5 days of normothermia (36-37.5°C)

Based on PALS AHA Guidelines 2020

Systematic Approach

1 INITIAL ASSESSMENT p. 40
- Assess for scene safety
- **A** – Appearance
- **B** – Work of Breathing
- **C** - Circulation
- Check responsiveness, activate Code/EMS



p. 42

2 Unresponsive?

Yes

3 p. 14, 21, 81

HQ-BLS

CHECK PULSES: **5-10 secs.**
Child: check for carotid or femoral
Infant: check brachial

COMPRESSIONS: *"R-D-R" for 2 mins*
Rate: at least **100-120/min**
Depth:
Child: 2-2.4 inches, 5-6 cm, 1/3 A-P diameter
Infant: 1.5 inches, 4 cm, 1/3 A-P diameter
Recoil: allow complete chest recoil

RATIO: *Compressions to ventilations*
1-Rescuer: **30 : 2** (5 cycles)
2-Rescuers: 15 : 2 (10 cycles)

Advanced CPR: continued chest compressions for two minutes
Child: give **1 breath every 6 sec** (10 breaths/min)
Infant: give **1 breath every 2-3 sec**. (20-30/min) with advanced airway

4 AED p. 24

Defibrillate as soon as possible

P – Power On
A – Attach AED pads to bare chest
A – Analyze *(clear patient to analyze)*
S – Shock *(clear patient to shock)*

No

p. 44

5 PRIMARY ASSESSMENT

A – Airway
- Position, Suction, insert OPA/NPA
- Consider advanced airway
- Check placement of advanced airway (DOPE)

B – Breathing
- Assess for respiratory rate, pattern, effort, chest expansion, air movement, lung and airway sounds
- Support breathing: **give 1 breath every 2-3 sec. (20-30 breaths/min)**

C – Circulation
- Apply monitors, Obtain IV/IO access, Draw labs/glucose, give meds/fluids
- **SpO_2 94-99%, $PETCO_2$ 35-45** mm Hg
- *Keep **$PETCO_2$ >12.5** mm Hg with CPR. Goal is to be 20-25 mm Hg with CPR.*
- **Cap Refill <2** secs
- **SBP**: **Neonates: >60 mm Hg; Infants: >70 mm Hg; Child (1-10yo): 70 mm Hg + (Agex2)**
- Check **Urine Output:** Infants/child: 1.5-2 mL/kg per hr; Adolescents: 1 mL/kg per hr

D – Disability
- Check neurological function
- Assess LOC, GCS, PERRLA, AVPU *(Alert, Voice, Pain, Unresponsive)*
- Check **Glucose**: Neonates: >45 mg/dL Infant/Child: >60 mg/dL

E – Exposure
- Remove clothing. Assess for signs of trauma, bleeding, burns, unusual markings, discolorations, medical alerts, core temp

6 SECONDARY ASSESSMENT p. 64

S.A.M.P.L.E.

Signs and symptoms, **A**llergies, **M**eds, **P**ast Medical History, **L**ast meal consumed, **E**vents

By Don Frasco, RN 12-2020 Edition