

PALS Assessment

Evaluate—Identify—Intervene

Respiratory Emergency

Respiratory Distress vs Failure?

SaO₂- 94-99%

Upper Airway

- Croup
- Anaphylaxis
- Foreign Body

Lower Airway

- Asthma/RAD
- Bronchiolitis

Lung Tissue Disease

- Infectious Pneumonia
- Aspiration
- Chemical Exposure
- ARDS
- Pulmonary Edema

Disorder of Breathing

- Drug overdose
- Poisoning
- Increased ICP
- Neuromuscular Disease

Circulatory Emergency

Shock

Hypovolemic

- Nonhemorrhagic
- Hemorrhagic

Obstructive

- Cardiac Tamponade
- Tension Pneumo
- Pulmonary Emboli
- Congenital Lesions

Distributive

- Septic
- Anaphylactic
- Neurogenic

Cardiogenic

- pulmonary edema
- venous congestion
- cardiomegaly

Fluids 5-10 ml/kg

Evaluate B/P

PEDIATRIC HYPOTENSION

- 0-1 y/o >60-70 systolic
- 1-10 y/o > (age x 2) + 70
- > 10 y/o > 90 systolic

20cc/kg isotonic crystalloid

Intravenous
Intraosseous

****2015 Recommendation-**
Shock Tx with febrile illness, use restrictive volumes of isotonic fluids leads to improved survival

Tachycardia

- 0-1y/o >220 BPM
- > 1 y/o >180 BPM

Bradycardia

HR < 60 BPM

CPR

Pulseless

VF/VT
Or
PEA/Asystole

Peds Assessment Triangle

Alert
Breathing
Skin Color

Primary Assessment

Airway- Patent? Maintain?

Breathing—SaO₂? Rate?
↑ Work of Breathing?
Require Supplemental O₂?

Circulation

- Skin Color/Temp
- Heart Rate-Heart Rhythm
- Blood Pressure
- Pulses
- Cap Refill

Disability

AVPU Response

Exposure

Secondary Survey

HISTORY

- Signs and Symptoms
- Allergies
- Medications
- Past Medical History
- Last Meal
- Events

Detailed Physical

“Head to Toe” Assessment

Tertiary Assessment

- Bedside Glucose
- ABG
- PETCO₂ Monitoring
- Chest X-Ray
- Expiratory Peak Flow
- CAT Scan

CARDIAC ARREST

Call for Help/Activate Code Team
START CPR (HIGH QUALITY)

Give Oxygen
Attach Monitor/Defibrillator

Shockable

YES

VF/VT

Defibrillate 2-4 j/kg

CPR 2 min
IV/IO access

Shockable
Rhythm?

Defibrillate 4j/kg

CPR 2 min

Epi .01 mg/kg
q 3-5 min

Shockable
Rhythm?

Defibrillate 4j/kg

CPR 2 min
Advanced Airway
PETCO₂
Amiodarone 5mg/kg
H & Ts

NO

Asystole/PEA

CPR 2 min
IV/IO access

Shockable
Rhythm?
No

CPR 2 min

Epi .01 mg/kg
q 3-5 min

Shockable
Rhythm?
No

CPR 2 min
Advanced Airway
PETCO₂
H & Ts

H & Ts

- Hypovolemia
- Hypoxia
- Hydrogen Ion (H⁺)
- Hypo/hyperkalemia
- Hypoglycemia
- Hypothermia
- Toxins
- Tamponade
- Tension Pneumo
- Thrombosis
- Pulmonary

PALS Tachycardia (2015 Guidelines)

Identify and Treat Cause

Maintain Airway
Monitor Pulse Oximetry and B/P
Oxygen, IV/IO, Csrdisc Monitor, 12 Lead if available

Evaluate QRS Width Evaluate Rhythm

Probable Sinus Tach

Hx suggests known cause
P wave present
Regular R-R and PR interval
Infants: <220 BPM
Children: <180 BPM

Treat Reversible Causes Hs & Ts

Probable SVT

Vague, non-specific hx
Abrupt Rate Changes in HR
P waves absent/abnorm
Regular R-R and PR interval
Infants: >220 BPM
Children: >180 BPM

Cardiopulmonary Compromise?

Hypotension
Altered Mental Status
Signs of Shock

NO

Consider Vagal Maneuvers

Establish vascular access

Consider
**adenosine 0.1 mg/kg
IV/IO (max 6 mg)**

Second dose
**adenosine 0.2 mg/kg
IV/IO (max 12mg)**

YES

Consider Vagal Maneuvers NO DELAYS

If IV/IO present, give
adenosine
OR
IF IV/IO Access is not
available, or if adenosine
is ineffective,
SYNC Cardioversion

Probable V Tach

QRS wide >.09 sec

Cardiopulmonary Compromise?

Hypotension
Altered Mental Status
Signs of Shock

NO

Consider
Adenosine
if regular
and mono-
morphic

Expert
consulta-
tion
advised

YES

**SYNC
Cardio-
version**

CARDIOVERSION
0.5 to 1 J/kg (may increase
if initial dose ineffective)
Sedate before Cardiover-
sion

Bradycardia

<60 BPM

CARDIOPULMONARY COMPROMISE??

Identify and Treat Underlying Causes

- **Airway and Breathing**
SaO2? Oxygen? Respiratory Failure?
- **Circulation**
Cardiac Monitor—Blood Pressure— Skin Color—Cap Refill
- **IV/ IO established**
- **12 Lead EKG**

**HR < 60 BPM
START CPR**

Bradycardia Persists?

NO

Airway
Breathing
Circulation
Observe
**CONSIDER EXPERT CON-
SULTATION**

Cardiopulmonary Compromise

- Altered Mental Status
- Signs of Shock
- Respiratory Failure
- Hypotension

YES

• **Epinephrine
.01 mg/kg**

Bradycardia Persists?

NO

YES

- Repeat Epinephrine
- Consider Atropine
- Consider Pacing
- Treat Hs & Ts