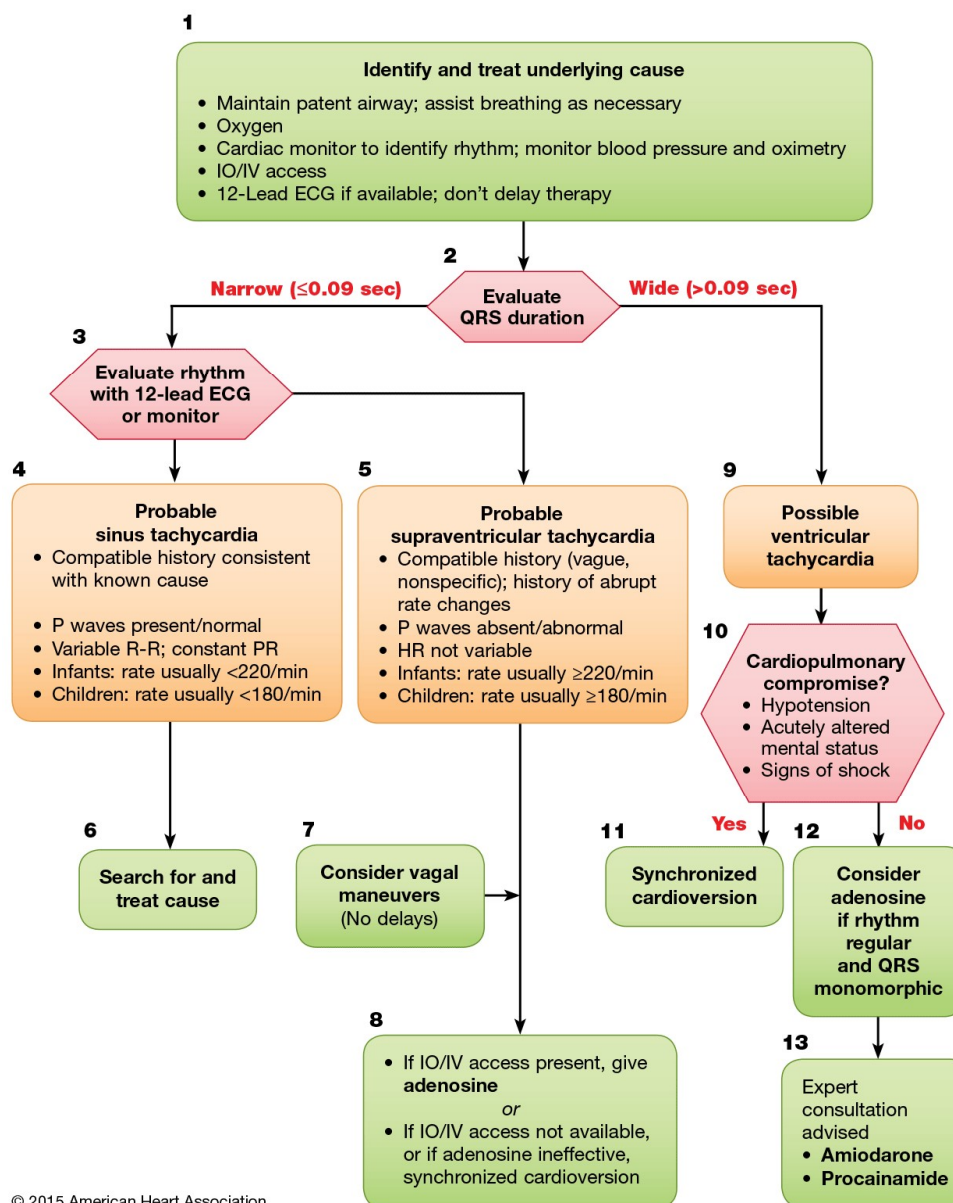


## Article II. Common Rhythm Disturbances

### Section 2.01 Tachycardia

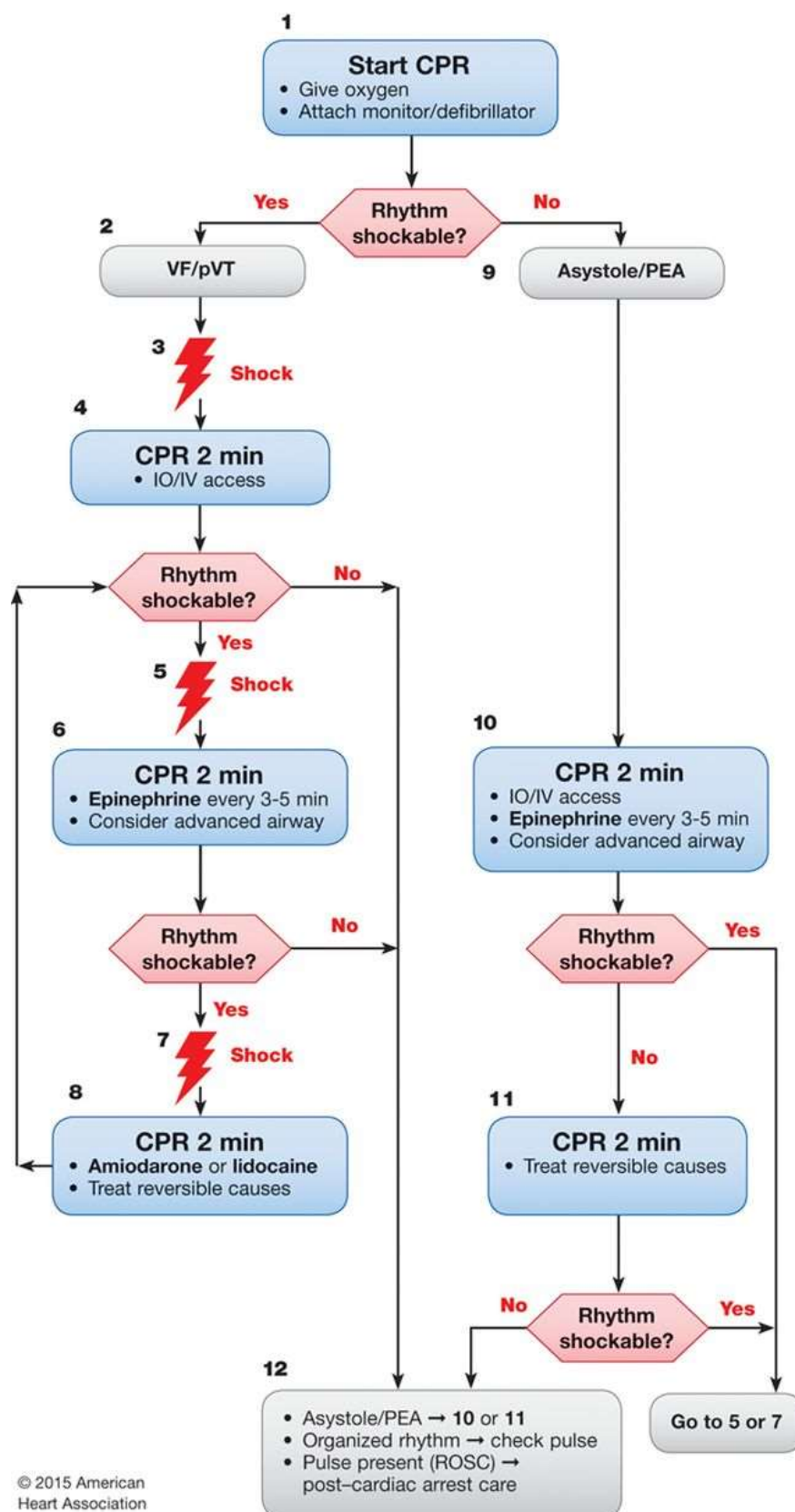
- Infant Resting Rate > 160bpm
- Teenager Resting Rate >90 bpm
- Occurrences with fever, exercise, and excitement are normal
- Changes in heart structure
- Electrical conduction abnormality
- Electrolyte imbalance
- Hyperthyroidism

#### Pediatric Tachycardia With a Pulse and Poor Perfusion Algorithm



Doses/Details
<b>Synchronized Cardioversion</b>
Begin with 0.5-1 J/kg; if not effective, increase to 2 J/kg. Sedate if needed, but don't delay cardioversion.
<b>Drug Therapy</b>
<b>Adenosine IO/IV dose:</b> First dose: 0.1 mg/kg rapid bolus (maximum: 6 mg). Second dose: 0.2 mg/kg rapid bolus (maximum second dose: 12 mg).
<b>Amiodarone IO/IV dose:</b> 5 mg/kg over 20-60 minutes or <b>Procainamide IO/IV dose:</b> 15 mg/kg over 30-60 minutes
Do not routinely administer amiodarone and procainamide together.

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### CPR Quality

- Push hard ( $\geq \frac{1}{3}$  of anteroposterior diameter of chest) and fast (100-120/min) and allow complete chest recoil.
- Minimize interruptions in compressions.
- Avoid excessive ventilation.
- Rotate compressor every 2 minutes, or sooner if fatigued.
- If no advanced airway, 15:2 compression-ventilation ratio.

### Shock Energy for Defibrillation

First shock 2 J/kg, second shock 4 J/kg, subsequent shocks  $\geq 4$  J/kg, maximum 10 J/kg or adult dose

## Drug Therapy

- **Epinephrine IO/IV dose:**  
0.01 mg/kg (0.1 mL/kg of 1:10 000 concentration). Repeat every 3-5 minutes.  
If no IO/IV access, may give endotracheal dose: 0.1 mg/kg (0.1 mL/kg of 1:1000 concentration).
- **Amiodarone IO/IV dose:**  
5 mg/kg bolus during cardiac arrest. May repeat up to 2 times for refractory VF/pulseless VT.
- **Lidocaine IO/IV dose:**  
Initial: 1 mg/kg loading dose.  
Maintenance: 20-50 mcg/kg per minute infusion (repeat bolus dose if infusion initiated >15 minutes after initial bolus therapy).

## Advanced Airway

- Endotracheal intubation or supraglottic advanced airway
- Waveform capnography or capnometry to confirm and monitor ET tube placement
- Once advanced airway in place, give 1 breath every 6 seconds (10 breaths/min) with continuous chest compressions

### Return of Spontaneous Circulation (ROSC)

- Pulse and blood pressure
- Spontaneous arterial pressure waves with intra-arterial monitoring

## Reversible Causes

- Hypovolemia
- Hypoxia
- Hydrogen ion (acidosis)
- Hypoglycemia
- Hypo-/hyperkalemia
- Hypothermia
- Tension pneumothorax
- Tamponade, cardiac
- Toxins
- Thrombosis, pulmonary
- Thrombosis, coronary



#### Section 4.04 Infant CPR 2

- Ratio 15:2
- Hand placement change



#### Section 4.05 Pediatric AED

- Pad selection
- What if pedi pads are not available?
- Placement
- What about infants?