

8.04 PEDIATRIC DYSRHYTHMIA: TACHYCARDIA

EMSAC JULY 2025

BLS Treatment

- Place in position of comfort.
- ~~NPO~~
- Assess circulation, airway, breathing, and responsiveness.
- Obtain vital signs: (see Reference 14.IV Pediatric Normal Vital Signs)
- Provide Oxygen as indicated, monitor and maintain 94-99% SPO2
- ~~Provide Spinal Motion Restriction as indicated or position of comfort as indicated.~~
- ~~Appropriately splint suspected fractures/instability as indicated.~~
- ~~Bandage wounds/control bleeding as indicated.~~

ALS Treatment – All Tachycardias

~~Current American Heart Association Guidelines concerning Emergency Cardiac Care assessments and interventions shall always take precedence over local protocols when there is a conflict concerning techniques of resuscitation.~~

Current Pediatric Advanced Life Support should be followed in conjunction with this protocol/algorithm

ALS – STABLE TACHYCARDIAS

Stable patients have a pulse, normal mental status, and no signs of hypoperfusion

- Cardiac monitor and identify rhythm
- 12 Lead ECG
- Consider IV with Normal Saline TKO, preferably at antecubital fossa.
 - Probable Sinus Tachycardia (Narrow QRS)
 - Identify and treat underlying cause
 - Consider IV or IO with Normal Saline fluid bolus.
 - ~~Advanced airway if indicated.~~
 - Probable Supraventricular Tachycardia (absent p-waves)
 - Consider vagal maneuvers
 - Adenosine
 - Possible Ventricular Tachycardia (regular rhythm, QRS monomorphic)
 - ~~Amiodarone~~
 - Consider Adenosine

ALS- UNSTABLE TACHYCARDIA

Unstable patients have a pulse but have altered mental status or signs of hypoperfusion

- ~~IV/ IO Normal Saline fluid bolus.~~
- Cardiac monitor and identify rhythm
- Consider 12 Lead ECG (do not delay therapy to obtain a 12 lead ECG)
- Insert IO if peripheral IV cannot be established in 2 attempts, or less than 90 seconds. Do not delay therapy for IV/IO

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- Probable supraventricular or possible ventricular tachycardia
 - Synchronized cardioversion
 - Strongly consider **Midazolam** prior to cardioversion. However, do NOT delay synchronized cardioversion **Midazolam** to start an IV/IO

Comments

QRS INTERPRETATION

Sinus Tachycardia	SVT	Ventricular Tachycardia
• Onset often gradual. • Known cause (fluid loss, trauma) • P-waves present/normal • Variable R-R, consistent PR • Rate: infant < 220 bpm. • Rate: child < 180 bpm.	• Onset sudden. • Vague, nonspecific history • P waves absent, HR not variable. QRS < 0.09 sec. • Rate: infant > 220 bpm. • Rate: child > 180 bpm.	• Onset sudden. • QRS duration > 0.09 sec. • Rate: > 120 bpm.

Vagal Maneuvers

- Infant and preschool children: Ice cold water to face (place cold washcloth over forehead and face without obstructing airway).
- Older children: Valsalva maneuvers.
- Possible causes of Sinus Tachycardia: exercise, dehydration, fever, infection, pain, medications, anxiety

Synchronized Cardioversion: Protocol 7.19 Synchronized Cardioversion

- Begin with 0.5-1J/kg
- If previous cardioversion is ineffective, subsequent doses at 2J/kg

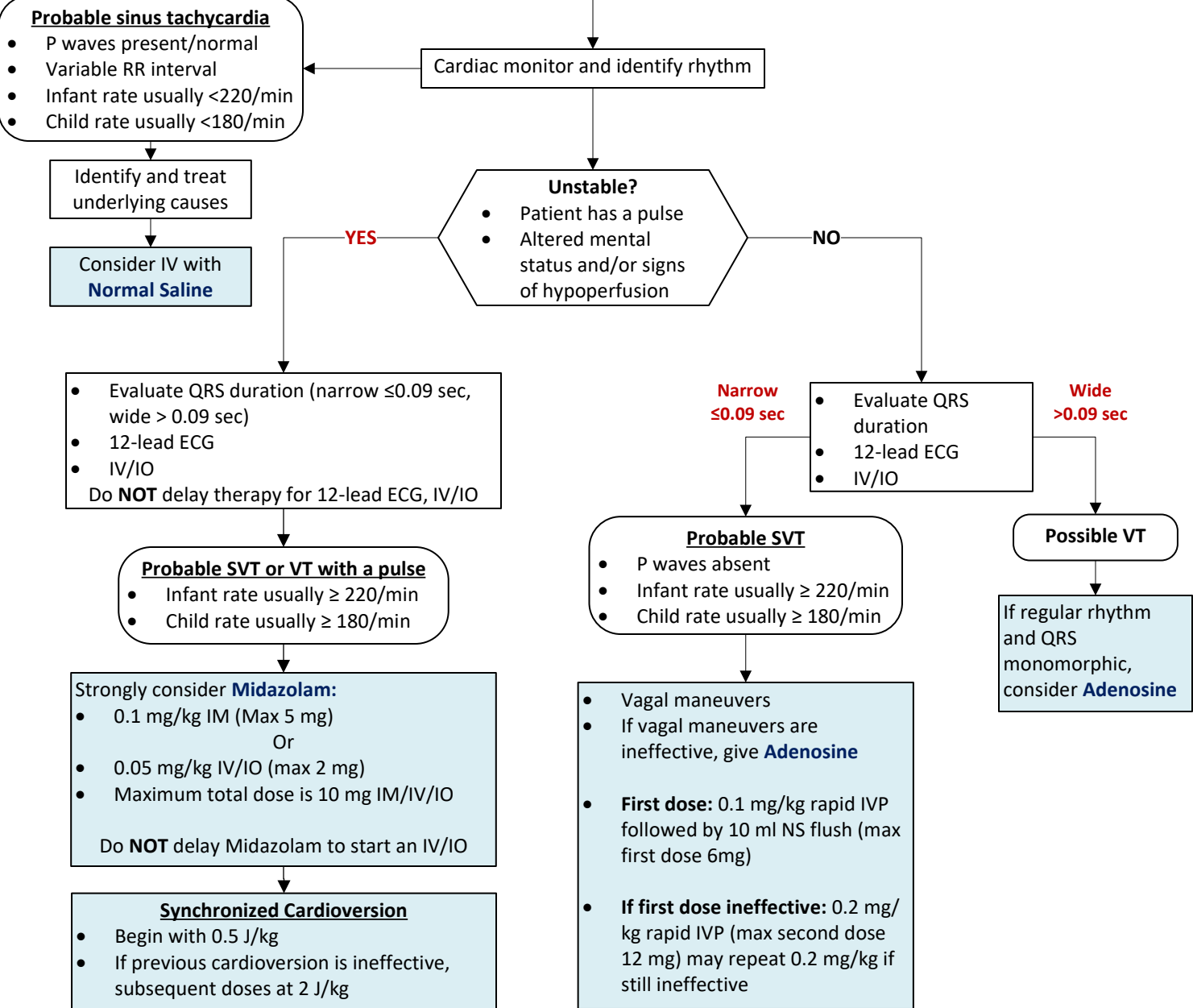
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BLS – FAQ Link

- Place in position of comfort
- Assess circulation, airway, breathing, and responsiveness
- Obtain vital signs (see [Reference 14.IV Normal Pediatric Vital Signs](#))
- Provide Oxygen as indicated, monitor and maintain 94-99% SPO2

DRAFT

ALS



Comments

Vagal Maneuvers

- Infant and preschool children: Ice cold water to face (place cold washcloth over forehead and face without obstructing airway).
- Older children: Valsalva maneuvers.
- Possible causes of Sinus Tachycardia: exercise, dehydration, fever, infection, pain, medications, anxiety
- Synchronized Cardioversion: **Protocol 7.19 Synchronized Cardioversion**
- Strongly consider Midazolam prior to cardioversion, ~~Do~~ however do **NOT** delay synchronized cardioversion ~~Midazolam~~ to start an IV/IO ~~or synchronized cardioversion~~