



Cardiac Events: Supraventricular Tachycardia (SVT)

OBJECTIVE

- Demonstrate the proper procedure for supraventricular tachycardia (SVT) during a cardiac event in a pediatric patient.

REFERENCE

- *Pediatric Education for Prehospital Professionals*, 4th Edition

EVALUATION

- The instructor will verify the accuracy of the student's ability to properly manage SVT on a pediatric manikin by means of observing the student's procedures and technique.

EQUIPMENT

- Personal protective equipment (PPE)
- Pediatric (infant/child) manikin with CPR and airway management capabilities
- Airway management kit to include bag-valve mask, nonbreathing mask, nasal cannula, suction catheters, stethoscope, endotracheal equipment, suction catheter, towel, and ETCO₂ detector
- AED trainer/cardiac monitor with ECG leads, electrodes, and training pads
- Color-coded length-based tape or similar tool
- Rhythm generator
- Waveform capnography equipment
- IV/IO device, if applicable
- Cardiac training medications or drug cards

INSTRUCTOR GUIDELINES

1. Ensure that each student has access to all required materials.
2. Read the objective and the evaluation statement to students.

PERFORMANCE STEPS

1. The team prepares the equipment.
2. The team leader assigns roles to team members (airway, medications, cardiac monitor, chest compressions) and ensures that effective communication is used throughout skill.
3. The team verbalizes that body substance isolation (BSI) precautions were considered.
4. The team performs a rapid assessment utilizing the Pediatric Assessment Triangle (PAT) and the primary survey (XABCDE).
5. The team applies the cardiac monitor and assesses vital signs.
6. The team identifies SVT and determines the need for appropriate care.
INSTRUCTOR TIP: *Discuss with participants how SVT was determined.*
7. The team directs the patient to perform appropriate vagal maneuvers for age.
8. The team establishes IV access. The team should recognize in what situations IO would be appropriate (unstable patient).
9. The team determines the need to administer the appropriate doses of adenosine.
10. The team determines the need to contact medical control for an unstable patient who may require synchronized cardioversion with sedation.
11. The team communicates the appropriate understanding for synchronized cardioversion at 0.5-1 J/kg (additional attempts should increase 0.5-1 J/kg, to not exceed 2 J/kg).
12. The team continuously reassesses the patient's response to the care provided.

CRITICAL CRITERIA

- The team does not use appropriate PPE precautions.

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- The team leader does not assign roles within the team.
- The team does not perform a primary assessment.
- The team fails to initiate appropriate airway management procedures throughout care.
- The team fails to place the patient on a cardiac monitor and recognize SVT through differentiating between ST and SVT.
- The team does not assist patient with executing appropriate vagal maneuvers
- The team fails to establish vascular access through IV, or IO in unstable patient.
- The team fails to administer the appropriate dose and route of adenosine.
- The team does not verbalize the need to contact medical direction prior to synchronized cardioversion in an unstable patient with sedation.
- The team fails to provide indications for and safely cardiovert at 0.5-1 J/kg with any additional doses increased by 0.5-1 J/kg and not to exceed 2 J/kg.
- The team does not monitor the patient's response to treatment.