



## TACHYCARDIA WITH PULSES

**Effective:** January 1, 2025  
**Replaces:** January 1, 2021

### 1. Patient Care Goals

- 1.1. Maintain adequate oxygenation, ventilation, and perfusion
- 1.2. Control ventricular rate
- 1.3. Restore regular sinus rhythm in unstable patient
- 1.4. Search for underlying cause
  - 1.4.1. Medications (caffeine, diet pills, thyroid, decongestants)
  - 1.4.2. Drugs (cocaine, amphetamines)
  - 1.4.3. History of dysrhythmia
  - 1.4.4. Congestive heart failure (CHF)

### 2. BLS Treatment

- 2.1. Routine Medical Care – Adult **(700-S04)**
  - 2.1.1. **Oxygen** – titrate as appropriate
- 2.2. Treat for signs and symptoms of shock as necessary **(700-A10)**

### 3. ALS Treatment

- 3.1. **Vascular Access (IV)**, TKO, antecubital (AC) location is preferred
- 3.2. Obtain **12 Lead ECG** if patient condition allows

### 4. Sinus Tachycardia

- 4.1. Consider **250ml Fluid bolus** and monitor the patient

### 5. Stable Supraventricular Tachycardia (SVT)

- 5.1. SVT can be identified by a QRS duration less than 0.12 seconds and absent P waves
- 5.2. Consider vagal maneuver
  - 5.2.1. If vagal maneuvers are unsuccessful consider **250ml Fluid bolus** while the provider prepares Adenosine
- 5.3. **Adenosine 6mg Rapid IV** followed by a **20ml saline rapid flush**
- 5.4. If rhythm does not convert in two (2) minutes administer:
  - 5.4.1. **Adenosine 12mg Rapid IV** followed by a **20ml saline rapid flush**
  - 5.4.2. May repeat once if rhythm does not convert after two (2) minutes

### 6. Unstable Supraventricular Tachycardia (SVT)

- 6.1. SVT can be identified by a QRS duration less than 0.12 seconds and absent P waves
- 6.2. Consider sedation, if patient condition allows, administer:
  - 6.2.1. **Midazolam 2.5 mg slow IV**, may repeat once in 2 minutes, max total dose of 5mg
- 6.3. **Synchronized Cardioversion 100, 150, 200 joules;**
  - 6.3.1. Starting with lowest energy setting (100j);
  - 6.3.2. Each subsequent counter shock increasing in energy

### 7. Stable Ventricular Tachycardia with Pulse



- 7.1. **Amiodarone Drip 150mg** in 100ml of saline, give over ten (10) minutes, (100 gtts/min delivered by Macro (10 gtts drip set)

#### 8. Unstable Ventricular Tachycardia with Pulse

- 8.1. Consider sedation, if patient condition allows, administer:
  - 8.1.1. **Midazolam 2.5 mg slow IV**, may repeat once in 2 minutes, max total of 5 mg
- 8.2. **Synchronized Cardioversion 100, 150, 200 joules;**
  - 8.2.1. Starting with lowest energy setting (100j),
  - 8.2.2. Each subsequent counter shock increasing in energy

#### 9. Special Considerations

- 9.1. Immediate cardioversion is seldom needed for heart rate less than 150 beats per minute
- 9.2. Pre-cardioversion sedation should be used in the awake patient whenever possible, use caution if the patient is hypotensive

#### 10. Pertinent Assessment Findings

- 10.1. A-FIB rarely requires cardioversion in the field. As it is difficult to ascertain the onset of this rhythm, the risk of stroke needs to be considered prior to cardioversion

#### 11. Key Documentation Elements

- 11.1. Initial rhythm and all rhythm changes
- 11.2. Time, dose, and response to medications given
- 11.3. Obtain monitor strips after each intervention
- 11.4. Patient weight
- 11.5. History of event supporting treatment of underlying causes



12. Tachycardia with Pulses Treatment Flowchart

