



Adult Monomorphic Tachycardia

Wide Complex (≥0.12 sec)

History

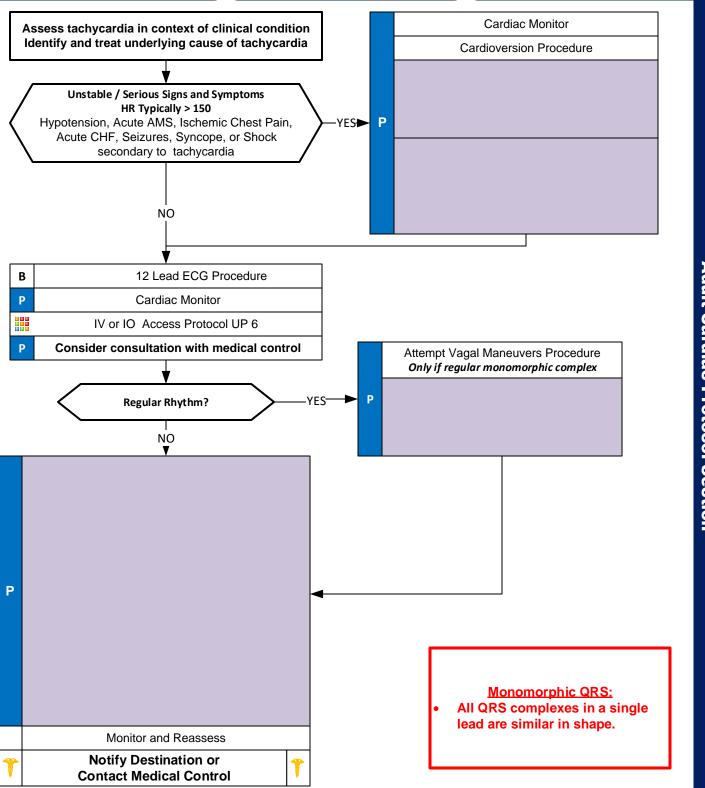
- Age
- Past medical history (MI, Angina, Diabetes, post menopausal)
- · Recent physical exertion
- Palpitations, irregular heart beat
- Time (onset /duration / repetition)

Signs and Symptoms

- Chest pain, heart failure, dyspnea
- AMS
- Shock, poor perfusion, hypotension
- Pale, diaphoresis
- · Shortness of breath
- Nausea, vomiting, dizziness

Differential

- Trauma vs. Medical
- Sinus Tachycardia vs. dysrrhythmia
- Fever, sepsis, infection
- Pericarditis, pulmonary embolism
- Aortic dissection or aneurysm
- Overdose: Stimulants



Adult Monomorphic Tachycardia

Wide Complex (≥0.12 sec)

Adult Cardiac Protocol Section

Pearls

- Recommended Exam: Mental Status, Skin, Neck, Lung, Heart, Abdomen, Back, Extremities, Neuro
- Most important goal is to differentiate the type of tachycardia and if STABLE or UNSTABLE and SYMPTOMATIC.
- 12-Lead ECG:

12 Lead ECG not necessary to diagnose and treat

Obtain when patient is stable and/or following rhythm conversion.

Monomorphic QRS:

All QRS complexes in a single lead are similar in shape.

Polymorphic QRS:

QRS complexes in a single lead will change shape from complex to complex.

- Rhythm should be interpreted in the context of symptoms and pharmacological or electrical treatment given only when symptomatic, otherwise monitor and reassess.
- Unstable condition

Condition which acutely impairs vital organ function and cardiac arrest may be imminent.

If at any point patient becomes unstable move to unstable arm in algorithm.

Symptomatic condition

Arrhythmia is causing symptoms such as palpitations, lightheadedness, or dyspnea, but cardiac arrest is not imminent.

Symptomatic tachycardia usually occurs at rates ≥ 150 beats per minute. Patients symptomatic with heart rates < 150 likely have impaired cardiac function such as CHF.

Serious Signs / Symptoms:

Hypotension. Acutely altered mental status. Signs of shock / poor perfusion. Chest pain with evidence of ischemia (STEMI, T wave inversions or depressions.) Acute congestive heart failure.

- Search for underlying cause of tachycardia such as fever, sepsis, dyspnea, etc.
- Typical sinus tachycardia is in the range of 100 to (220 patients age) beats per minute.
- If patient has history or 12 Lead ECG reveals Wolfe Parkinson White (WPW), DO NOT administer a Calcium Channel Blocker (e.g., Diltiazem) or Beta Blockers. Use caution with Adenosine and give only with defibrillator available.
- Regular Wide-Complex Tachycardia:

Unstable condition:

Immediate defibrillation if pulseless and begin CPR.

Stable condition:

Typically VT or SVT with aberrancy. Adenosine may be given if regular and monomorphic and if defibrillator available.

Verapamil contraindicated in wide-complex tachycardias.

Agencies using Amiodarone, Procainamide and Lidocaine need choose one agent primarily. Giving multiple anti-arrhythmics requires contact of Medical Control.

Atrial arrhythmias with WPW should be treated with Amiodarone or Procainamide

• Irregular Tachycardia:

Wide-complex, irregular tachycardia: Do not administer calcium channel, beta blockers, or adenosine as this may cause paradoxical increase in ventricular rate. This will usually require cardioversion. Contact Medical Control.

• Document all rhythm changes with monitor strips and obtain monitor strips with each therapeutic intervention.