Adult Tachycardia - Wide Complex Administrative Guideline (Age ≥ 14)

WCT with serious signs or symptoms:
dyspnea, chest pain, syncope/near-syncope, hemodynamic compromise, altered mental status or other signs of end organ hypoperfusion

SBP<90 + Normal perfusion/LOC

SBP<90 + Poor perfusion/ALOC

B	Administer O_2, Vital sign assessment, including temperature if available
P	IV/IO access, O_2, Cardiac monitor

P	Cardioversion: 120 Joules (Attempt to synchronize, if no sync and unstable - defibrillate) May repeat if needed, check pulse and evaluate for cardiac arrest if no conversion)
	Consider Sedation Prior to Cardioversion: - **Midazolam 2.5 mg** IV/IO or **5 mg** IM **-** May repeat as needed; **Max 10 mg**
	Administer 500 mL NS/LR fluid bolus
	For torsades, administer **Magnesium 2 g** IV/IO over 1-2 minutes.
	Cardiac Arrest AG if indicated

Regular Rhythm

P	Administer **amiodarone (first line) 150 mg IV/IO** in D5W/NS, infuse over 10 minutes May repeat x 1 if no response Consider adenosine in patients with history of SVT with abberancy and/or prior conversion with adenosine - **administer 6 mg adenosine IV/IO**, followed by 10 mL aline flush May repeat x 1 at 12 mg

Irregular Rhythm

P	Administer **amiodarone 150 mg IV/IO** in D5W/NS, infuse over 10 minutes May repeat x 1 if no response

P	12 lead ECG, repeat vital signs, cardiac monitor

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Education/Pearls

The evaluation of wide complex tachycardia is based principally on the stability of the patient and evidence of altered mental status or shock. If the patient is unstable, utilize electricity if able; otherwise, medications or vagal maneuvers may be employed.

- Do not administer calcium channel blockers (diltiazem) in wide-complex tachycardias.
- Symptomatic tachycardia usually occurs at heart rates >150 BPM. If symptomatic at lower rates (100-120), consider underlying heart disease, like congestive heart failure.
- Obtaining rhythm strips can be helpful in further diagnosis of the patient's arrhythmia at the Emergency Department. Obtain rhythm strips and/or EKG after therapeutic intervention.

- Monomorphic (Regular) Wide-Complex Tachycardia:
  - Unstable - sync cardiovert if possible, otherwise defibrillate.
  - Stable - consider VT or SVT with aberrancy (presence of a bundle branch block). Amiodarone is the first line treatment. Adenosine can be considered if you suspect SVT with aberrancy; the strip must be regular and momomorphic.
    - Defibrillator should in place on the patient when administering adenosine.
  - If there is suspicition of WPW, do not administer adenosine or other nodal blockers (e.g. CCB)
    - Administering nodal blocking agents in WPW can cause a paradoxical increase in the ventricular rate.

- Polymorphic Wide-Complex Tachycardia:
  - May be Torsades de Pointes, especially in patients with history of prolonged QTc.
  - Adminster magnesium in addition to above treatments and defibrillation.

Local Cardiac Receiving Centers:

- BUMC-T
- BUMC-SC
- NWMC
- OVH
- TMC
- SJMC
- VAMC