Adult Wide Complex Tachycardia
Irregular Rhythm

**Designation of Condition:** Sustained ventricular tachycardia (broad QRS > 0.11ms) will be present on the monitor with an irregular pattern. The patient will have a pulse and may present with hypotension (SP <90mmHg), chest pain, shortness of breath, or diaphoresis.

**B**
- ABC's, Vital signs
- Apply cardiac monitor
- Obtain 12 lead ECG
- O2 to maintain an SpO2 of >90%
- Capnography

**I**
- Fluid bolus of 500ml, repeated as needed to a max of 20ml/kg, to rule out hypovolemia or dehydration

**Is the patient stable?**
- Unstable signs: Hypotension/weak or no radial pulse, acute AMS, ischemic chest pain, acute CHF, syncope, s/sx of cardiogenic shock

---

**YES**

**Wide Polymorphic Stable**

- DO NOT GIVE ADENOSINE
- If it is believed to be Torsades de Pointes:
  - Magnesium Sulfate 2 grams IV/IO push. Can give 2nd dose q 10 minutes x 1

---

**P**

***KEY POINTS***
- Torsades may be caused by prolonged QT syndrome or medications such as tricyclic antidepressants, phenothiazines, non-sedating antihistamines and certain anti-arrhythmic drugs. Although it can be suppressed by Magnesium Sulfate, it will often recur unless the precipitating mechanisms are removed.

---

**NO**

**Wide Polymorphic Unstable**

- Consider sedation with Midazolam 1-5mg IV/IO/IM/IN to max of 10mg
- Attempt to sync:
  - Medtronic: 100J
  - Zoll: 75J
- if unable to Sync—defib:
  - Medtronic: 200J
  - Zoll: 120J
- Repeat defibrillation if necessary
  - Medtronic: 300J, 360J
  - Zoll: 150J, 200J
- If VT still persists:
  - Alternate Lidocaine 1-1.5mg/kg first dose and 0.5-0.75mg/kg subsequent doses to a max of 3mg/kg
  - and cardioversion/defibrillation at maximum joule setting until VT resolves
  - (Lidocaine contraindicated in TCA OD)
- If it is believed to be Torsades de Pointes AND UNSTABLE:
  - Defib as outlines above for polymorphic VT; escalate joule setting PRN
  - Magnesium Sulfate 2gm IV/IO push. Can give 2nd dose q 10 minutes x 1
- If no change in rhythm, repeat defibrillation