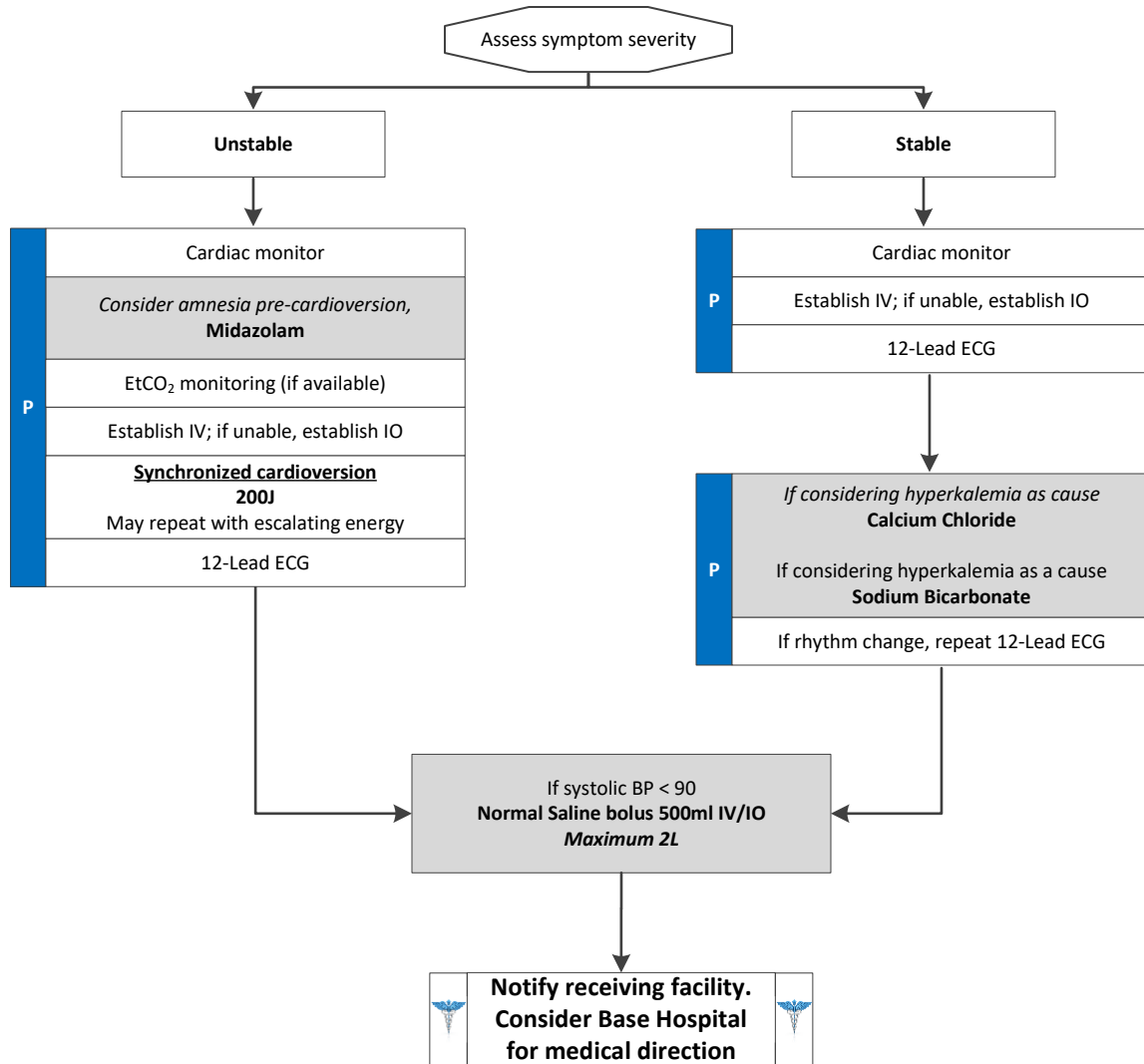# Wide Complex Tachycardia

History
- Medications (e.g., Aminophylline, Adderall, diet pills, thyroid supplements, decongestants, and Digoxin)
- Diet (e.g., caffeine and chocolate)
- Drugs (e.g., nicotine and illegal drugs)
- Past medical history
- History of palpations/heart racing
- Syncope/near syncope
- Renal failure
- Missed dialysis

Signs and Symptoms
- Heart rate > 150
- Systolic BP < 90
- Dizziness, chest pain, shortness of breath, altered mental status or diaphoresis
- Acute pulmonary edema
- Potential presenting rhythm:
  - Atrial/sinus tachycardia
  - Atrial fibrillation/flutter
  - Multifocal atrial tachycardia
  - Ventricular tachycardia

Differential
- Heart disease (e.g., WPW or valvular)
- Sick sinus syndrome
- Myocardial infarction
- Electrolyte imbalance
- Exertion, pain, or emotional stress
- Fever
- Hypoxia
- Hypovolemia or anemia
- Drug effect/overdose (see **History**)
- Hypothyroidism
- Pulmonary embolus

Adult Cardiac Dysrhythmia Treatment Protocols

```
                    Assess symptom severity

          Unstable                          Stable

   P ┌─────────────────────┐        P ┌─────────────────────┐
     │ Cardiac monitor     │          │ Cardiac monitor     │
     ├─────────────────────┤          ├─────────────────────┤
     │ Consider amnesia    │          │ Establish IV; if    │
     │ pre-cardioversion,  │          │ unable, establish IO│
     │ Midazolam           │          ├─────────────────────┤
     ├─────────────────────┤          │ 12-Lead ECG         │
     │ EtCO2 monitoring    │          └─────────────────────┘
     │ (if available)      │
     ├─────────────────────┤        P ┌─────────────────────┐
     │ Establish IV; if    │          │ If considering      │
     │ unable, establish IO│          │ hyperkalemia as     │
     ├─────────────────────┤          │ cause               │
     │ Synchronized        │          │ Calcium Chloride    │
     │ cardioversion       │          │                     │
     │ 200J                │          │ If considering      │
     │ May repeat with     │          │ hyperkalemia as a   │
     │ escalating energy   │          │ cause               │
     ├─────────────────────┤          │ Sodium Bicarbonate  │
     │ 12-Lead ECG         │          ├─────────────────────┤
     └─────────────────────┘          │ If rhythm change,   │
                                      │ repeat 12-Lead ECG  │
                                      └─────────────────────┘
```

If systolic BP < 90
Normal Saline bolus 500ml IV/IO
Maximum 2L

Notify receiving facility. Consider Base Hospital for medical direction

Wide Complex Tachycardia

Adult Cardiac Dysrhythmia Treatment Protocols

Pearls
- Most important goal is to differentiate the type of tachycardia and if STABLE or UNSTABLE.
- If at any point the patient becomes unstable, move to the unstable arm of the algorithm.
- IV access, including EJ, must be attempted. If unsuccessful, then attempt IO.
- For ASYMPTOMATIC patients (or those with only minimal symptoms, such as palpitations) and any tachycardia with a rate of approximately 100 – 120 with a normal blood pressure, consider CLOSE OBSERVATION or fluid bolus.
- Unstable Signs/Symptoms include: Hypotension; acutely altered mental status; signs of shock/poor perfusion; chest pain; and acute pulmonary edema.
- Search for underlying cause of tachycardia such as fever, sepsis, dyspnea, etc.
- Monitor for respiratory depression and hypotension associated with Midazolam.
- Activate and upload all monitor data.

SAN MATEO COUNTY HEALTH
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MEDICAL SERVICES

Treatment Protocol CD03
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