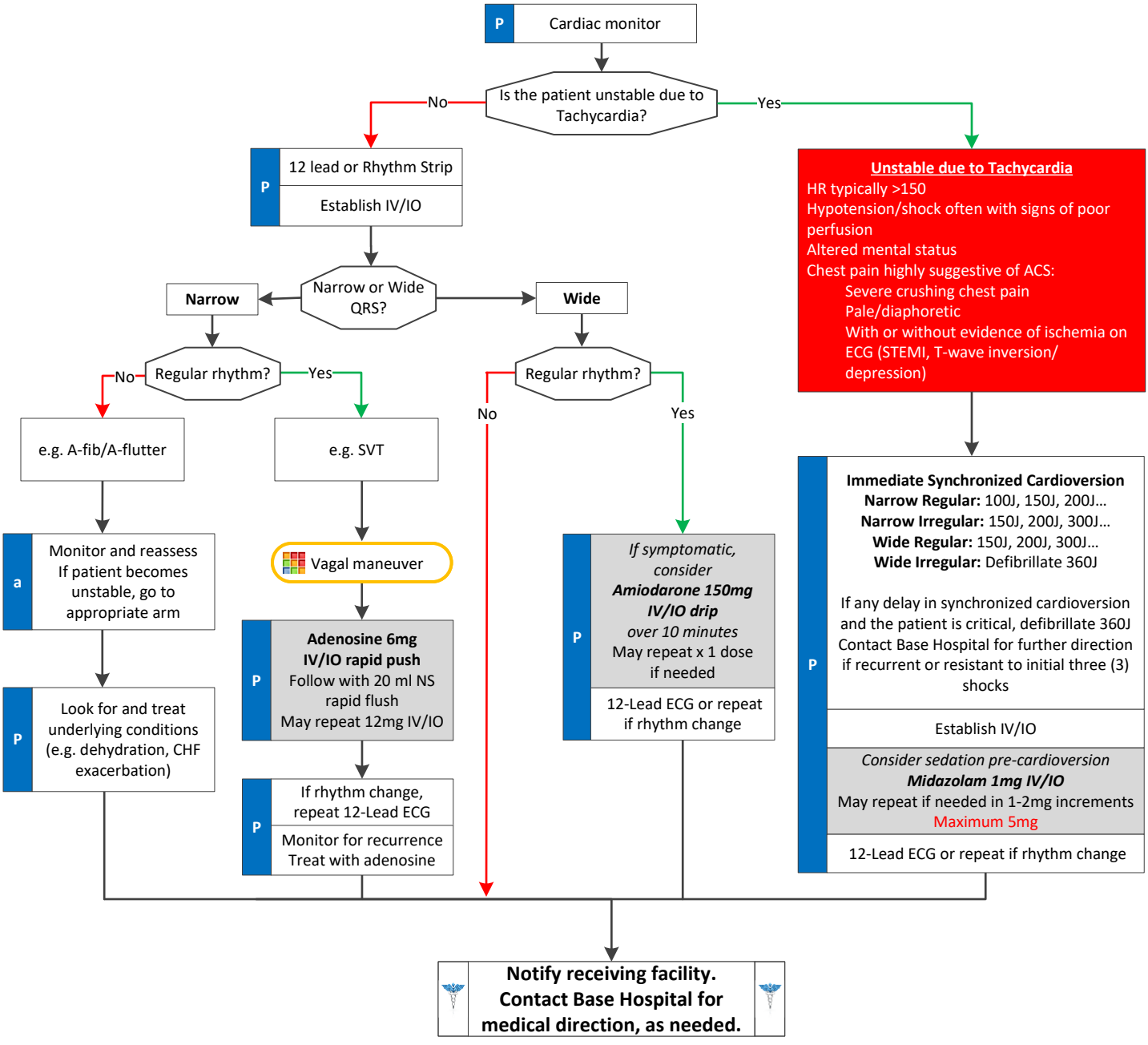
Contra Costa County Emergency Medical Services

Tachycardia

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

Signs and Symptoms
- Hypotension
- Palpitations, dizziness, chest pain, shortness of breath, altered mental status, or diaphoresis
- CHF
- Potential presenting rhythm:
  - Atrial/sinus tachycardia
  - Atrial fibrillation/flutter
  - Multifocal atrial tachycardia
  - Ventricular tachycardia

Differential
- Dysrhythmia
- Sick sinus syndrome
- Myocardial infarction
- Electrolyte imbalance
- Exertion, pain, or emotional stress
- Fever/sepsis
- Hypoxia
- Hypovolemia or anemia
- Drug effect/overdose (see **History**)
- Hyperthyroidism
- Pulmonary embolus



Adult Cardiac Treatment Guidelines

Tachycardia

- Monitor for respiratory depression and hypotension associated with Midazolam.
- Providers must export ALL MONITOR DATA to EHR when caring for and treating tachycardia patients.

Pearls

- In unstable patients with fever or other signs of sepsis, the underlying cause of the rapid heart rate is more likely fever and hypovolemia. This is particularly true in wide irregular tachycardia which is frequently underlying A fib with a bundle branch block. Initial efforts should focus on treating appropriately for underlying sepsis.
- If at any point the patient becomes unstable, move to the unstable arm of the algorithm.
- For ASYMPTOMATIC patients (or those with only minimal symptom, such as palpitations) and any tachycardia with a rate of approximately 100-120 with a normal blood pressure, consider CLOSE OBSERVATION or fluid bolus rather than immediate treatment with an anti-arrhythmic medication.
- If patient has a history or if 12 lead ECG reveals Wolfe Parkinson White (WPW), use caution with Adenosine and give only with a defibrillator immediately available.
- In Polymorphic VT: torsade de pointes, etc., the variation in QRS morphology may make it difficult to synchronize. If you cannot synchronize, move to defibrillation.
- In Wide IRREGULAR rhythm such as AFib with left or right bundle, etc, synchronize cardioversion at 360J is more likely to yield first shock conversion.
- Symptomatic tachycardia usually occurs at rates of 120-150 and typically $\geq$150 beats per minute. Patients who are symptomatic with heart rates <150 likely have impaired cardiac function, such as CHF.
- Search for underlying cause of tachycardia such as fever, sepsis, dehydration, hypovolemia, etc.