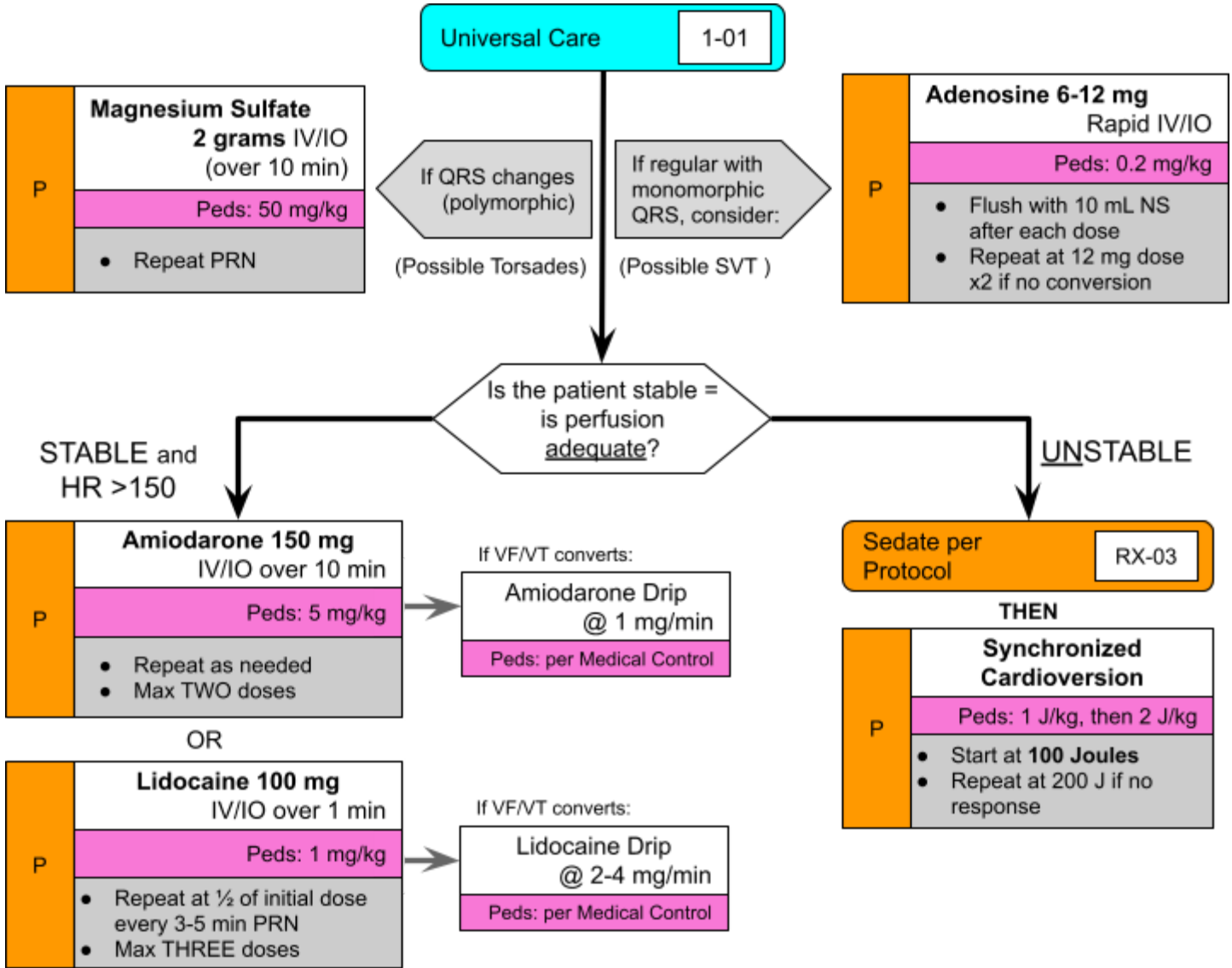


C-08  
WIDE-COMPLEX  
TACHYCARDIA/PVC's

Please see the note on  
PVC's on the second page.

First Responder  
EMT  
AEMT  
Paramedic



Consultation with Online (Pediatric) Medical Control is recommended prior to medications or cardioversion.

## “Unstable” Definition:

- UNSTABLE does NOT mean (just) hypotension
- UNSTABLE = **significant inadequate perfusion** of vital organs:
  - Hypotension with significantly altered LOC (i.e. an alert and talking patient should be considered stable).
  - Symptoms and 12-lead EKG suggesting acute coronary syndrome (severe chest pain, SOB, diaphoresis, etc.).
  - Any BP with significant pulmonary edema and hypoxia.
- Bottomline: *significant* clinical symptoms + clinical signs (i.e hypotension & tachycardia) = inadequate perfusion

## NOTES:

- **Wide-complex Rates > 150:**
  - Generally should be considered abnormal and treated per the above guidelines unless otherwise discussed with online medical control.
  - Treatment should generally be with a medication that will slow ventricular conduction (i.e. amiodarone, lidocaine or procainamide as available).
  - Regular WCT > 150 = typically V-Tach or SVT with aberrancy.
    - Adenosine may be given if regular and monomorphic (i.e probably SVT) and if a defibrillator is available.
  - Irregular WCT > 150 = likely A-fib with aberrancy (or A-fib with LBBB)
    - If QRS complexes are changing (i.e. Torsades de Pointe), treat with Magnesium per guideline above.
    - Do NOT administer medications that slow the AV node (i.e. beta-blockers or calcium channel blockers (e.g., Diltiazem).
      - This can block conduction through the AV node and cause the electrical current to be conducted preferentially through the accessory pathway.
      - This can cause the rapid atrial fibrillation to be conducted to the ventricles causing V-fib.

**NOTES (continued):**

- Wide-complex Rates 100-150:
  - Consider a “normal” rhythm with a chronic bundle-branch block (BBB)
  - Consider close observation and/or fluid bolus rather than immediate treatment with an antiarrhythmic medication.
  - Regular = consider sinus tachycardia with BBB (should see P-waves)
    - Consider/treat underlying condition causing the sinus tach (see *below*).
  - Irregular = consider new-onset or chronic A-fib (irregular without P-waves)
    - A-fib with a rapid ventricular response may be pathologic OR may be is a sign of an underlying disturbance (similar to sinus tachycardia).
    - If chronic A-fib with tachycardia, consider underlying cause as above.
    - If **known history of A-fib and BBB** with WCT <150, you may consider treatment with diltiazem as per the Narrow-Complex Tachycardia guideline [C-07].

---

- Causes of elevated heart rate (i.e. sinus tach or chronic A-fib with elevated rate)
  - If pain-induced, treat per Pain Management guideline [RX-02].
  - If substance-abuse related (meth, cocaine, etc.), treatment is with benzodiazepines per the Excited Delirium [F-01]/Sedation guideline [RX-03].
  - Other worrisome causes stimulating increased cardiac output include sepsis, pulmonary embolism, dehydration, etc. Most should be initially treated with a fluid bolus unless signs of pulmonary edema are present.
  - Trauma: consider hemorrhage or tension pneumothorax.
- Document all rhythm changes with monitor strips and obtain monitor strips with each therapeutic intervention.
- Maximum dose of antiarrhythmic should be given before changing antiarrhythmic (if applicable).