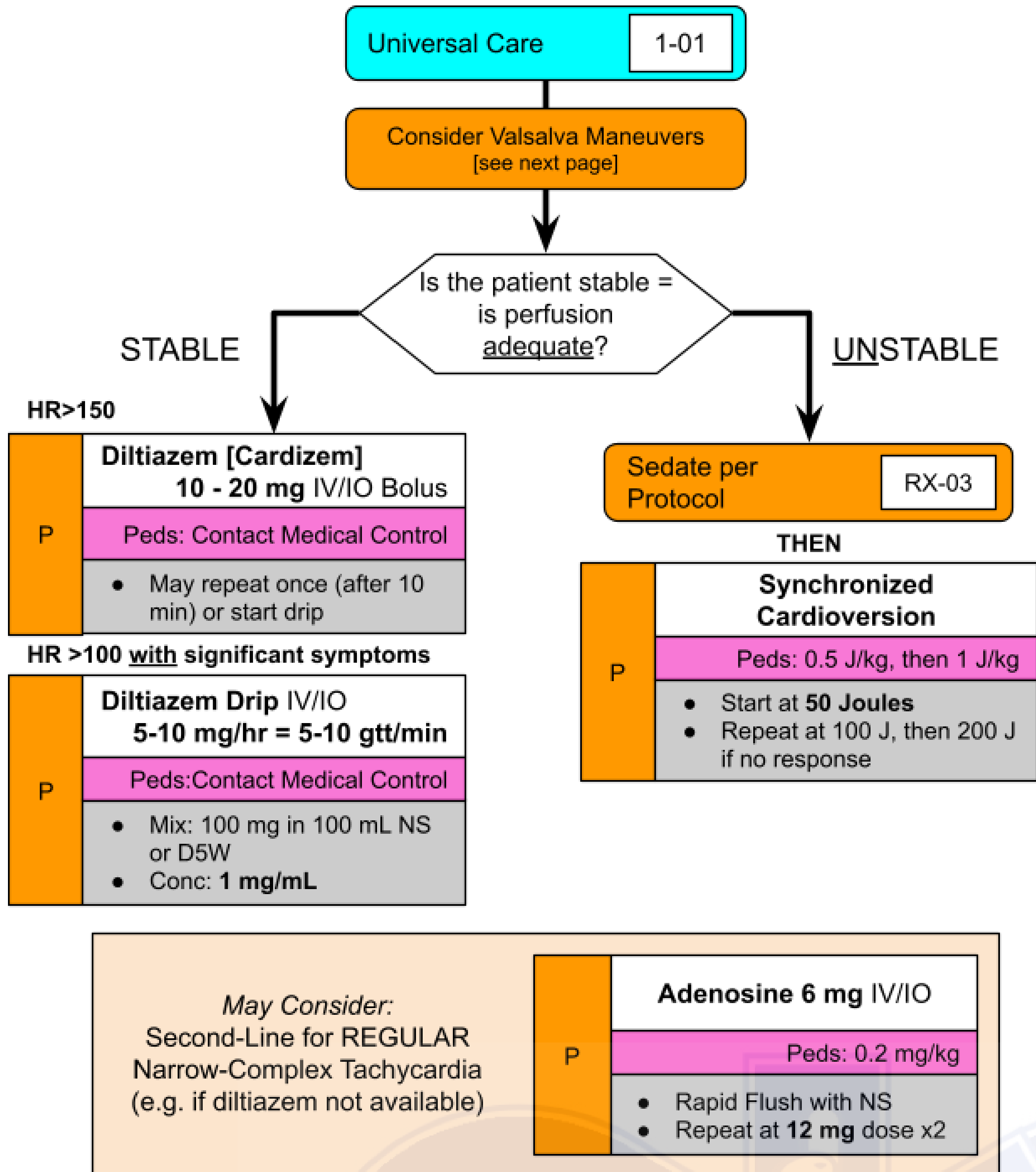
C-07 NARROW-COMPLEX TACHYCARDIA		First Responder EMT AEMT Paramedic



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

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"Unstable" Definition:

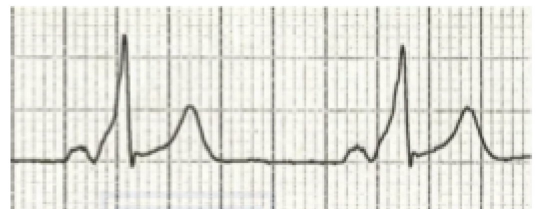
- UNSTABLE does NOT mean (just) hypotension
- UNSTABLE = **significant inadequate perfusion** of vital organs:
  - Hypotension with significantly altered LOC (i.e. an alert and talking patient should be considered stable).
  - Symptoms and 12-lead EKG suggesting acute coronary syndrome (severe chest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

Valsalva Maneuvers:

These may be considered in patients with a stable, narrow-complex tachycardia, but should never preclude more successful interventions from being performed:

1. Bear down like having a bowel movement.
2. Blow through a blocked straw.
3. Ice/cold pack to the face.

Wolff Parkinson White (WPW):



- If patient has a known history of or 12 lead ECG [*see right with 'delta' wave*] concerning for Wolff Parkinson White (WPW):
  - DO NOT administer calcium channel blocker (e.g. diltiazem) or beta-blocker.
  - Adenosine is generally regarded as safe to attempt with accessory pathways, but use caution and be prepared to defibrillate.
  - Treat per the wide-complex tachycardia guideline [**C-08**].

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NOTES:

- Heart Rates > 150 (Pediatrics HR > 200-220):
  - HR > 150 are almost always pathologic in adults and should generally be treated unless certain that it is a sinus tachycardia.
  - With elevated HR, hypotension may be related to decreased cardiac output.
  - Using diltiazem to slow the heart rate will improve cardiac output and blood pressure should increase as diastolic filling improves.
- Heart Rates 100-150 (NOT sinus tachycardia):
  - If symptomatic (significant palpitations, SOB, dizziness, etc.), you may consider medications to decrease the HR.
  - If asymptomatic (or those with only minimal symptoms) observe and transport.
  - If HR 100-150 and normotensive consider a small fluid bolus and reevaluation rather than immediate treatment with and antiarrhythmic medication.
- Sinus Tachycardia (HR 100-150 or higher in young/health individuals):
  - Sinus Tach is NOT a dysrhythmia, it should be thought of as a **sign of an underlying disturbance**.
  - 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.
- Adenosine may not be effective in identifiable atrial flutter/fibrillation, but is not harmful.

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