

Kittitas County Prehospital Care Protocols

Subject: CARDIAC ARRHYTHMIAS

General

- A. If stable, administer O₂ @ 4-6 lpm per nasal cannula.
- B. If unstable, administer O₂ @ 12-15 lpm per non-rebreather mask.
- C. Establish cardiac monitor/defibrillator.
- D. Establish peripheral IV access with 0.9% NaCl @ TKO.

Ventricular Tachycardia (Stable)

- A. In the conscious, stable patient:
 - 1. Administer **Amiodarone**, 150 mg IV over 10 minutes.
 - 2. Start **Amiodarone** drip if converted at 1 mg/min. Place **Amiodarone** 100 mg in D₅W 100 ml bag.

Ventricular Tachycardia (Unstable)

- A. If patient is unstable (i.e., chest pain, dyspnea, systolic BP < 80 mm Hg, decreased LOC, or signs of pulmonary congestion):
 - 1. Initiate synchronized cardioversion @ 100 j.
 - 2. If no response, initiate synchronized cardioversion at 200 j, with subsequent shocks at 300 j and then 360 j.
 - 3. Prior to shocks, if patient is conscious and no significant delay would result, consider sedation with **Versed** 2.5 mg, slow IV push (except in the presence of hypotension, pulmonary edema, or unconsciousness). May repeat **Versed** 2.5 mg slow IV push if patient is not sedated.
- B. After conversion, or if recurrent after initial attempts at conversion,
 - 1. Administer **Amiodarone** 150 mg IV over 10 minutes.
 - 2. Start **Amiodarone** drip at 1 mg/min. Place **Amidoarone** 100 mg in D₅W 100 ml bag.

Effective Date: July 14, 2011

Medical Program Director: Jackson S. Horsley, MD

Kittitas County Prehospital Care Protocols

Subject: CARDIAC ARRHYTHMIAS

Wide Complex Tachycardias (of uncertain type in a conscious, stable patient)

- A. Establish 12 lead ECG.
- B. Consider **Adenosine 6 mg/rapid IV push** only if regular and monomorphic, to be followed by an immediate **5 ml NaCl flush**.
- C. Administer **Amiodarone 150 mg IV over 10 minutes**.
- D. Start **Amiodarone** drip at 1mg/min. Place **Amiodarone 100 mg in D₅W 100 ml bag**.

Supraventricular Tachycardia / Atrial Fibrillation or Atrial Flutter

- A. If systolic BP < 80 mm Hg, or a decreased LOC:
 1. Initiate synchronized cardioversion @ 100 j.
 2. If no response, initiate synchronized cardioversion at 200 j, with subsequent shocks at 300 j and then 360 j.
 3. Prior to shocks, if patient is conscious and no significant delay would result, consider sedation with **Versed 2.5 mg, slow IV push** (except in the presence of hypotension, pulmonary edema, or unconsciousness). May repeat **Versed 2.5 mg slow IV push** if the patient is not sedated after 5 minutes.
- B. If patient is normotensive but symptomatic (e.g., dyspnea, chest pain, or decreased LOC):
 1. Place in Trendelenburg position and have patient perform Valsalva Maneuver (take deep breath and hold).
 2. If SVT is irregular or confirmed as atrial fibrillation or atrial flutter, *do not* administer **Adenosine**.
 3. Administer **Adenosine, 6.0 mg rapid IV push**, to be followed by an immediate **5 ml NaCl flush**.
 4. If no conversion after 2 minutes, administer **Adenosine 12 mg rapid IV push**, to be followed by an immediate **5 ml NaCl flush**.
 5. Consider obtaining 12 lead ECG.

Effective Date: July 14, 2011

Medical Program Director: Jackson S. Horsley, MD

Kittitas County Prehospital Care Protocols

Subject: CARDIAC ARRHYTHMIAS

6. If no conversion with **Adenosine**, consider **Amiodarone** 150 mg IV over 10 minutes.
 7. Start **Amiodarone** drip at 1 mg/min. Place **Amiodarone** 100 mg in D₅W 100 ml bag.
- C. If Atrial fibrillation or atrial flutter is confirmed:
1. Consider **Amiodarone** 150 mg IV over 10 minutes.
 2. Start **Amiodarone** drip at 1 mg/min.
 3. Place **Amiodarone** 100 mg in D₅W 100 ml bag.

Bradycarrhythmias/AV Blocks

- A. If ECG shows 2nd degree AV block, 3rd degree AV block, junctional rhythm, or bradycardia with a heart rate < 60/minute, and patient symptomatic (e.g., systolic BP < 80 mm Hg, ischemic chest pain):
1. Administer **Atropine** 0.5-1.0 mg IV bolus, up to a total of 3 mg.
 2. Consider external cardiac pacing.
- B. If unresponsive to **Atropine** and pacing, and patient remains hypotensive, consider mixing **Dopamine**, 400 mg in 250 ml D₅W for a concentration of 1600 mcg/ml. Administer IV piggyback @ 2-10 mcg/kg/minute, titrating up to 20 ug/kg/minute; or until BP ≥ 90 mm Hg systolic.
- C. Consider **Epinephrine Infusion**, 1 mg/100ml D5W for a concentration of 10 mcg/ml. Administer IV piggyback @ 2-10 mcg/min; until BP ≥ 90 mm Hg systolic.

Effective Date: July 14, 2011

Medical Program Director: Jackson S. Horsley, MD