REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Intermediate

SMO: Adult Narrow Complex Tachycardia

Overview: Treatment of tachyarrhythmias is separated into narrow complex and wide complex tachycardias. The urgency with which tachyarrythmias require treatment is guided by two considerations: (1) evidence of hypoperfusion (shock, altered mental status, anginal chest pain or pulmonary edema) and (2) the potential to degenerate into a more serious arrhythmia or cardiac arrest. This protocol divides the approach to the patient with narrow complex tachycardia into 1) stable and 2) unstable with criteria defining each. Please note that a patient can deteriorate in status and will require frequent reassessments.

INFORMATION NEEDED

__History of arrest:
__Witnessed collapse: time down and preceding symptoms
__Unwitnessed collapse: time down and preceding symptoms if known
__Bystander CPR and treatments, including First Responder, AED or PAD defibrillation, given prior to arrival
__Past medical history: diagnosis, medications
__Scene: evidence of drug ingestion, hypothermia, trauma, Valid DNR form or medallion, nursing home or hospice patient

OBJECTIVE FINDINGS

__Mental status
__Blood pressure
__Evidence of CHF

STABLE-defined as:

__Normal mental status AND/OR
__Signs of normal or mildly decreased perfusion

TREATMENT

__High flow oxygen
__ Pulse Oximetry
__Shock position
__Regular reassessment of vital signs and signs of perfusion
__RMC
__Consider vagal maneuvers (valsalva, cough or breath holding)
__Contact Medical Control for use of **Adenosine 6 mg rapid IVP** flushed with 20 cc NS bolus
__If dysrhythmia persists 1-2 minutes after initial dose, consult Medical Control to repeat **Adenosine 12 mg rapid IVP** flushed with 20 cc NS bolus repeat q 1-2 minutes up to maximum of 30 mg.

UNSTABLE-defined as:
__Signs of poor perfusion:
__Decreased level of consciousness
__SBP<90 (with signs/symptoms of hypoperfusion)
__CHF (rales)
__Moderate to severe chest pain

TREATMENT

__BLS airway support
__High flow oxygen 10-15 L/min; assist ventilations via bag valve mask or advance airway techniques as indicated.
__ Pulse oximetry
__Shock position
__Regular reassessment of vital signs and signs of perfusion
__Routine Medical Care
__**Synchronized cardioversion** (100 J, 200 J, 300 J, and 360 J for monophasic; or equivalent biphasic); Contact Medical Control for permission to administer **Valium (diazepam) 5 mg** IVP or **Versed (midazolam) 2mg IVP** for sedation prior to cardioversion if patient SBP ≥ 100 mm Hg.
__ Contact Medical Control for permission to administer **Morphine sulfate 2 mg** IVP for pain control if needed if patient SBP ≥ 100 mm Hg (see PAIN MANAGEMENT protocol)

Documentation of Adherence to Protocol:

__Stability documented (chart contains word "stable" or "unstable" and the criteria on which that determination was made)
__Stable patients receive either valsalva maneuver or adenosine
__Cardioverted patients receive sedation if conscious and SBP ≥ 100.

Medical Control Contact Criteria

__ Permission to administer Valium or Versed prior to cardioversion.
__ Permission to administer Morphine Sulfate for pain management.

PRECAUTIONS AND COMMENTS

- A narrow QRS complex is defined as less than 0.12 seconds.
- If the rate is less than 160 bpm, consider sinus tachycardia. Sinus tachycardia is most likely secondary to some other factor such as hypoxia, hypovolemia, pain, fever, etc.
- Adenosine administration is associated with flushing, dyspnea and chest pain, which resolves within 1 to 2 minutes in most patients. These symptoms may be alarming and patients should be advised accordingly.
- Adenosine should only be used when a supraventricular origin is strongly suspected. Do not use to discriminate ventricular tachycardia from supraventricular tachycardia with aberrancy.
- Do not use Adenosine on a patient with a known history of Wolff-Parkinson-White (WPW) syndrome.

REGION I EMERGENCY MEDICAL SERVICES
STANDING MEDICAL ORDERS
EMT – Paramedic

SMO: Adult Narrow Complex Tachycardia

Overview: Treatment of tachyarrhythmias is separated into narrow complex and wide complex tachycardias. The urgency with which tachyarrythmias require treatment is guided by two considerations: (1) evidence of hypoperfusion (shock, altered mental status, anginal chest pain or pulmonary edema) and (2) the potential to degenerate into a more serious arrhythmia or cardiac arrest. This protocol divides the approach to the patient with narrow complex tachycardia into 1) stable and 2) unstable with criteria defining each. Please note that a patient can deteriorate in status and will require frequent reassessments.

INFORMATION NEEDED

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OBJECTIVE FINDINGS

__Mental status
__Blood pressure
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STABLE-defined as:

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TREATMENT

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__ Pulse Oximetry
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__CHF (rales)
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TREATMENT
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__High flow oxygen 10-15 L/min; assist ventilations via bag valve mask or advance airway techniques as indicated.
__ Pulse oximetry
__Shock position
__Regular reassessment of vital signs and signs of perfusion
__Routine Medical Care
__**Synchronized cardioversion** (100 J, 200 J, 300 J, and 360 J for monophasic; or equivalent biphasic); **Valium (diazepam) 5 mg** IVP or **Versed (midazolam) 2mg IVP** for sedation prior to cardioversion if patient SBP ≥ 100 mm Hg. May repeat dose up to 10 mg maximum.
__ **Morphine sulfate 2 mg** IVP for pain control to maximum of 10 mg if needed if patient SBP ≥ 100 mm Hg. (see PAIN MANAGEMENT Protocol)

Documentation of Adherence to Protocol:
__Stability documented (chart contains word "stable" or "unstable" and the criteria on which that determination was made)
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