Tachycardia

This protocol is for paramedic use only

Aliases: SVT, V-tach, Supraventricular tachycardia, Ventricular Tachycardia, Uncontrolled Atrial Fibrillation, A-fib

This protocol is used for the care of patients with persistent tachycardia (ventricular rate greater than or equal to 150/minute) where the tachycardia is believed to be the primary cause of the patient's symptoms. It is not intended to treat tachycardia that is secondary to underlying conditions (i.e., dehydration, trauma or toxins). Consultation with online medical control should be considered for complex patients in whom the cause of the arrhythmia is not obvious. SYNCHRONIZED CARDIOVERSION PRECEDES DRUG THERAPY FOR UNSTABLE PATIENTS. Unstable patients may be defined as those suffering a tachycardia with: hypotension, acutely altered mental status, signs of shock, significant ischemic chest discomfort, shortness of breath, or pulmonary edema that is likely due to the arrhythmia. Adenosine is only used for regular monomorphic rhythm tachycardia.

1. Follow the **General Pre-Hospital Care Protocol**.
2. Identify and treat reversible causes.
3. Determine if patient is stable or unstable.

UNSTABLE

4. If time and condition allow prior to cardioversion, sedate per MCA selection. Refer to **Patient Sedation Procedure**.
5. For unstable patients with a **REGULAR NARROW OR WIDE** rhythm, perform synchronized cardioversion beginning at 100 J, increasing to 200 J, 300 J, 360 J. (Use manufacturers suggested biphasic energy dose, 100 J), or refer to your specific device's recommended energy level to maximize the first shock success.
6. For unstable patients with an **IRREGULAR NARROW** rhythm, perform synchronized cardioversion beginning at 200 J, increasing to 300 J, 360 J. (Use manufacturers suggested biphasic energy dose, 120 – 200 J), or refer to your specific device's recommended energy level to maximize the first shock success.
7. For patients that are unstable with an **IRREGULAR WIDE** rhythm, perform defibrillation beginning at 200 J, increasing to 300 J, 360 J. (Use manufacturers suggested biphasic energy dose 150 – 200 J), or refer to your specific device's recommended energy level to maximize the first shock success.

STABLE

8. Attempt Vagal Maneuvers
    a. Ensure the patient is on oxygen and on a cardiac monitor.
    b. Run ECG strip during the procedure.
    c. Instruct the patient to cough forcefully several times or
    d. Have the patient take a deep breath and bear down.
    e. DO NOT USE CAROTID MASSAGE.
9. Start an IV NS KVO. A large bore antecubital IV should be secured whenever possible.
10. Obtain 12 lead ECG, if immediately available.

11. If the rhythm is regular, consider Adenosine 6 mg rapid IV push through the most proximal injection site. This should be followed immediately with 20 ml NS flush.
12. If conversion does not occur, administer Adenosine 12 mg IV using the same technique as stated above.
13. If rhythm is stable with narrow QRS contact medical control for possible orders.
14. If rhythm is stable with wide QRS administer Amiodarone ***OR*** Lidocaine per MCA Selection.

Medication Options
(Choose One)
☒Amiodarone - 150 mg IV over 10 minutes
OR
☐Lidocaine - 1 mg/kg IV

15. If at any point a patient becomes unstable, perform synchronized cardioversion.
16. Administer Magnesium Sulfate 2 gm IV/IO for suspected torsades de pointes.
17. Per MCA selection, administer additional Amiodarone 150 mg IV over 10 minutes as needed to a maximum of 450 mg OR Lidocaine 0.5 -1.0 mg/kg IV push every 5 - 10 minutes to a maximum of 3 mg/kg.

NOTES:

1. Administration of Amiodarone is best accomplished by adding Amiodarone 150 mg to 100 or 250 ml of NS and infusing over approximately 10 minutes.
2. Administration of Magnesium Sulfate is best accomplished by adding Magnesium Sulfate 2gm to 100 or 250 ml of NS and infusing over approximately 10 minutes.