SAN FRANCISCO EMERGENCY MEDICAL SERVICES AGENCY

Effective: 01/07/13 **Protocol: P-014.4**
Supersedes: 09/01/11

DYSRHYTHMIAS: WIDE COMPLEX TACHYCARDIA

SUBJECTIVE FINDINGS

See DYSRHYTHMIAS: OVERVIEW Protocol (P-014).

OBJECTIVE FINDINGS

- Mental status
- Heart rate
- Blood pressure
- Evidence of CHF

Definition of Stable Vs. Unstable	
STABLE: - Normal mental status AND/OR - Signs of normal or mildly decreased perfusion.	**UNSTABLE** - Signs of poor perfusion: - Heart rate - Decreased level of consciousness or altered mental status. - SBP < 90 (with signs/symptoms of hypo-perfusion). - CHF (Respiratory distress with rales). - Moderate to severe chest pain.

STABLE	
BLS Treatment	**ALS Treatment**
• Routine Medical Care. • See DYSRHYTHMIAS OVERVIEW Protocol.	• IV access [see PRECAUTIONS AND COMMENTS] • **Amiodarone** 150 mg in 100 ml D5W slow IV infusion over 10 minutes (see PRECAUTIONS AND COMMENTS).

Additional Conditions Requiring ALS Treatment
• For Torsades de Pointes, give **Magnesium Sulfate** 1-2 grams in 100 ml NS slow IV infusion over 10 min. • Consider **Adenosine** only if wide-complex tachycardia is regular and monomorphic. Give **Adenosine** 6 mg rapid IVP and flush with a 20 ml NS bolus. • If dysrhythmia persists 1-2 minutes after initial dose, repeat **Adenosine** 12 mg rapid IVP flushed with 20 ml NS bolus repeat q 1-2 minutes up to a total of 30 mg.

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UNSTABLE	
BLS Treatment	**ALS Treatment**
• Routine Medical Care. • See DYSRHYTHMIAS OVERVIEW Protocol.	• **Midazolam** 5 mg IN (2.5 mg each nostril) or 5 mg IM or 2.5 mg slow IV push to a maximum dose of 5 mg (may be repeated every five minutes). Titrate to sedative effect. • **Morphine sulfate** 4 mg slow IVP for pain control if needed and normotensive. See PAIN CONTROL Protocol (P-019). • **Synchronized cardioversion** (50J, 75J, 120J, 150J, 200J) for biphasic; OR equivalent monophasic; per manufacturer's instructions. (see PRECAUTIONS AND COMMENTS) • If **synchronized cardioversion** fails, give **Amiodarone** 150 mgs in 100 ml D5W slow IV infusion over 10 minutes. (see PRECAUTIONS AND COMMENTS). • **Defibrillate** patients in near arrest or with no pulse. (see PRECAUTIONS AND COMMENTS).

DOCUMENTATION

- Stability documented (chart contains the word stable or unstable).
- If cardioverted or defibrillated, document number of shocks, joules and patient response.

PRECAUTIONS AND COMMENTS

- **Wide QRS complex is defined as greater than or equal to 0.12 seconds.**
- A wide complex tachycardia is most often ventricular in origin, but may be supraventricular tachycardia with aberrant conduction.
- An **irregular** rapid rhythm is most likely atrial fibrillation.
- Unsynchronized and synchronized cardioversion energy levels vary according to the type of waveform, biphasic or monophasic. Follow manufacturer's instructions when cardioverting.
- Inject 150 mgs of **Amiodarone** into 100cc of D5W on minidrip. Run wide open.
- Do not use **Amiodarone** in the presence of underlying atrial fibrillation, atrial flutter, bradycardia with ventricular escape beats, or other conduction defect (2nd or 3rd degree AV block).
- Signs of **Amiodarone** toxicity include hypotension, 3rd degree AV block and prolonged QT interval.
- If fluid challenge/replacement is required, place IV of NS.