

Tachycardia Algorithm

See individual sections for more detailed analysis & recommendations

See also ACLS Notes

TACHYCARDIA WITH PULSE

Hear rate typically > 150 bpm

1. Assess/ support ABCs as needed
 - Secure airway if necessary
2. Give O₂ if hypoxemic
3. Monitor
 - ECG (identify rhythm)
 - Blood pressure
 - Oximetry
4. Identify/ treat contributing causes

Persistent tachyarrhythmia causing any of the following:

Hypotension, changes in mental status, shock, ischemic pain, CHF?

1. **Yes - Synchronized Cardioversion**
 - **Consider sedation**
 - **If regular narrow complex, consider adenosine**
 - **Adenosine dose: first dose 6 mg rapid IV push : follow with NS flush, Second dose 12 mg if required**
2. **No – is QRS wide >0.12 second?**
 - **Yes**
 - IV access and 12 lead EKG if available
 - Adenosine only if regular and monomorphic
 - Consider antiarrhythmic infusion
 - Procainamide IV
 - Amiodarone IV
 - Sotalol IV
 - Consider expert consultation
 - **No**
 - IV access and 12 lead EKG if available
 - Vagal maneuvers
 - Adenosine (if regular)
 - Beta blocker or calcium channel blocker
 - Consider expert consultation

Potential Contributing Causes – consider in all cases

1. The 6 Hs
 - **Hypovolemia**
 - **Hypoxia**
 - **Hydrogen Ion (acidosis)**
 - **Hypo/ Hyperkalemia**
 - **Hypoglycemia**
 - **Hypothermia**

- 2. The 5 Ts
 - **T**oxins
 - **T**amponade (cardiac)
 - **T**ension pneumothorax
 - **T**hrombosis
 - Coronary
 - Pulmonary
 - **T**rauma
 - Hypovolemia
 - Increased ICP

“2010 Handbook of Emergency Cardiovascular Care for Healthcare Providers.” 2010, First American Heart Association Printing, November 2010.

Authors: Jennifer Beverage, DO, & Whitney Courtney, DO,
United Hospital Center Program, WV

Editor: Robert Marshall, MD, MPH, MISM, CMIO,
Madigan Army Medical Center, Tacoma, WA