ACLS Tachycardia with a pulse in an adult

Assess appropriateness for clinical condition

Generally considered if HR > 150/min for tachyarrhythmia

Identify and treat underlying cause

Maintain patent airway; assist breathing as necessary
Oxygen if hypoxemic
Cardiac monitor to identify rhythm; monitor BP and pO2

Persistent tachyarrhythmia causing?

Hypotension?
Acutely altered mental status?
Signs of shock?
Ischemic chest discomfort?
Acute heart failure?

Yes

Synchronized Cardioversion

Consider sedation
If regular narrow complex, consider atropine

Sedate if time: Etomidate 0.15 mg/kg up to 10 mg (consider up to 15mg if >100kg)

Initial recommended doses Narrow regular: 50-100J
Narrow irregular 120-200J Wide regular 100J

Wide irregular: defibrillation dose

Adenosine
- First dose: 6mg rapid IVP then flush
- Second dose: 12mg rapid IVP then flush

No

Wide QRS >0.12 sec?

Yes

- **IV access and 12-lead EKG**
- **Consider Adenosine only if regular and monomorphic**
- **Consider antiarrhythmic infusion**
- **Consult Cardiology**

No

- **IV access and 12-lead EKG**
- **Vagal maneuvers**
- **Adenosine (if regular)**
  - **First dose: 6mg IVP rapid push then flush**
  - **Second dose: 12mg rapid IVP then flush**
- **B-blocker or Calcium channel blocker**
- **Consult Cardiology**

Anti-arrhythmic infusions for stable Wide QRS tachycardia

- **Procainamide:** 20-50mg/min until suppressed, hypotension, QRS increase >50% or exceeds maximum 17mg/kg. Maintenance infusion: 1-4mg/min, avoid if prolonged QT or CHF
- **Amiodarone:** First dose 150mg over 10 minutes, repeat as needed if VT recurs. Maintenance dose 1mg/min for first 6 hours
- **Sotalol:** 100mg (1.5mgkg) over 5 minutes, avoid if prolonged QT

Cincinnati Children's
changing the outcome together

Last revised 5/2022