

AHA ACLS Adult Tachycardia Algorithm

(With A Pulse)

Tachyarrhythmia typically seen when the heart rate is $\geq 150/\text{min}$
Is the tachyarrhythmia causing the symptoms?

The priority should be to identify and treat the underlying cause

- Maintain patent airway; assist breathing if necessary
- Apply oxygen (if hypoxic); monitor pulse oximetry
- Apply cardiac monitor; monitor blood pressure

Is the Tachyarrhythmia causing:

- Hypotension?
- Altered mental status?
- Signs of shock?
- Ischemic chest discomfort?
- Acute heart failure?

Yes

Synchronized Cardioversion

- Consider sedation
- May use **adenosine** for regular narrow complex tachyarrhythmia

No

Is the QRS Wide ≥ 0.12 second

Yes

- Start IV and 12 lead ECG if possible
- May use **adenosine** only if regular and monomorphic
- Consider **antiarrhythmic** infusion
- Consider expert consultation

No

- Start IV and obtain 12-lead ECG if possible
- Vagal Maneuvers
- **Adenosine** (if rate is regular)
- β -Blocker or calcium channel blocker
- Consider expert consultation

Synchronized Cardioversion Doses

Initial recommended doses:

- Narrow regular: 50-100 J
- Narrow irregular: 120-200 biphasic or 200 J Monophasic
- Wide regular: 100J
- Wide irregular: defibrillation dose (not synchronized)

Adenosine IV Dose:

First dose 6mg rapid IV push and NS flush

Second dose: 12 mg if needed

Antiarrhythmics that may be considered

Amiodarone
Procainamide
Sotalol