

Tachycardia Management Algorithm

AIRWAY
Open, maintain and protect as necessary

BREATHING
Administer oxygen if required. Target saturation 94-98%
Ventilate if necessary

CIRCULATION
Assess pulse, blood pressure and perfusion
Attach ECG monitor, pulse oximeter and vital signs monitor if available

DRIP
Establish IV access

ECG RHYTHM
Run rhythm strip to confirm dysrhythmia (12 lead ECG) if possible
Identify and treat underlying causes

**SPECIALIST MEDICAL
ADVICE SHOULD BE
SOUGHT WHENEVER
POSSIBLE**

SIGNS OF INSTABILITY

- Hypotension
- Acutely altered mental state
- Signs of shock
- Ischaemic chest discomfort
- Acute heart failure

TACHYCARDIA
HR > 150/min *See Paediatric Rates

NARROW COMPLEX TACHYCARDIA
(Supraventricular Tachycardia)
HR > 150/min with QRS < 0.12 sec

VAGAL STIMULATION
(NOT if varying R-R intervals/Atrial fib)
Preferable: Modified Valsalva
Alternatives
Valsalva, Ice water applied to face,
Coughing, Breath-holding

ADENOSINE
(NOT if varying R-R intervals/Atrial fib)
6 mg IV rapidly, then 12 mg IV after 1-2 min prn
Alternatives
(esp irregular rhythms)
Beta Blockers or Ca Channel Blockers

AMIODARONE
150 mg in 5% D/W over 10 minutes
IV (15 mg/min) then 1 mg/min infusion
Alternatives
(esp irregular rhythms)
Beta Blockers or Ca Channel Blockers

WIDE COMPLEX TACHYCARDIA
(Ventricular Tachycardia)
Generally HR > 150/min with
QRS > 0.12 sec

AMIODARONE
150 mg in 5% D/W over
10 minutes IV (15 mg/min)
then 1 mg/min infusion
Consider (if Torsades de Pointes):

- Defibrillation (Asynchronous)
- Magnesium 2g IV over 10 min
- Correct electrolytes
- Consider toxins/drugs

Physiological causes

- Sepsis
- Pain / anxiety
- Hypovolaemia
- Anaemia
- Street drugs
- Hyperthyroidism

SYNCHRONISED CARADIOVERSION
Consider procedural sedation
Start with 100J initially
(monophasic or biphasic)

Paediatric start 0.5-1J/kg
then 2J/kg (Max 4J/kg)

***Paediatric Tachycardia Rates**

Narrow complex > 180 child QRS < 0.08 sec
> 220 infant
Wide complex > 200 QRS > 0.08 sec

Paediatric Drug Doses

Adenosine 0.1mg/kg rapidly (max 6mg)
followed by 0.2mg/kg (max 12mg)
Amiodarone 5mg/kg in 5% D/W over
20-60 min (max 300mg) in an ICU
monitored environment 5% D/W
Magnesium 30-50 mg/kg slow IV