

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 Paed Rates

STABLE → **UNSTABLE**

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

VAGAL STIMULATION
(NOT if varying R-R intervals / Atrial fibrillation)
Preferable: Valsalva (Modified)

Alternatives
Ice water applied to face
Coughing / Breath-holding
Carotid Sinus Massage (C/I if bruits, CVS disease, elderly)

ADENOSINE
(NOT if varying R-R intervals / Atrial fibrillation)
6 mg IV rapidly, then 12mg IV after 1 - 2min prn

Alternatives
(esp irregular rhythms)
• BB or CCB

AMIODARONE
150 mg in 5% D/W over 10 minutes IV (15 mg/min) then 1 mg/min infusion

Alternatives
(esp irregular rhythms)
• BB or CCB

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

AMIODARONE
150 mg in 5% D/W over 10min IV (15 mg / min), then 1 mg / min infusion

Consider (if Torsades de Pointes):

- Defibrillation (Asynchronous)
- Magnesium (2g IV over 10min)
- Correct Electrolytes and consider toxins/drugs

SYNCHRONISED CARIOVERSION
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 < 0.08sec
> 220 infant
Wide complex > 200 QRS > 0.08 sec

Paediatric Drug Doses
Adenosine 0.1mg / kg rapidly followed by 0.2mg / kg
Amiodarone 5mg / kg over 20 - 60min (max 300mg)
Magnesium 50 mg / kg

* BB = Beta Blockers
* CCB = Calcium Channel Blockers