

# 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 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 < 0.08sec  
> 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