

# 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 - not for paed

### 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 CARDIOVERSION

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)  
in an ICU monitored environment

Magnesium 50 mg / kg

\* BB = Beta Blockers

\* CCB = Calcium Channel Blockers