

# BRADYCARDIA 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

**ADULT**

**PAEDIATRIC**

**BRADYCARDIA**  
HR < 50/min

**IF UNSTABLE**

**ATROPINE**  
(Exclude Hypoxia/Hypothermia/Head injury)  
  
0.5 mg IV bolus  
Can repeat every 3 - 5 minutes, up to 3 mg

**ADRENALINE**  
(0.05µg/kg/min → 0.5 µg/kg/min infusion)  
OR  
**TRANSCUTANEOUS PACING**

**Alternatives**

- Transvenous pacing
- High dose Insulin (1 U/kg if BB or CCB)
- Glucagon (if BB or CCB overdose)

**Look for and treat contributory causes of Bradycardia**

- Hypoxia
- Hypothermia
- Head Injury
- Hyperkalaemia
- Heart Block
- Hydrogen Ion (Acidosis)
- Hypotension
- Toxins (e.g. organophosphates)
- Therapeutic Agents (e.g. beta blocker overdose/ calcium channel blocker overdose)

**BRADYCARDIA**  
HR < 60/min despite effective oxygenation and ventilation

**IF UNSTABLE**

**START CPR**  
1 Rescuer = 30 compressions : 2 breaths  
2 Rescuers = 15 compressions : 2 breaths

**ADRENALINE**  
0.1 ml/kg IV of 1:10 000 dilution (Max - 1 mg) every 3 - 5 minutes

**ATROPINE**  
0.02 mg/kg IV if vagal tone or 1° AV block  
Maximum 0.5mg

**CONSIDER PACING**

\* BB = Beta Blockers  
\* CCB = Calcium Channel Blockers