RESUSCITATION COUNCIL OF SOUTHERN AFRICA

2025

Bradycardia Management Algorithm

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AIRWAY

Open, maintain and protect as necessary

BREATHING

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

CIRCULATION

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

DRIP

Establish IV access, assess blood glucose

ECG Rhythm

Attach and print ECG to confirm rhythm
(12-lead ECG if possible)
Identify and treat reversible causes

SPECIALIST MEDICAL ADVICE SHOULD BE SOUGHT WHENEVER POSSIBLE

ADULT

BRADYCARDIA

Less than 50/min

IF UNSTABLE

ATROPINE

(Exclude Hypoxia/Hypothermia/Head Injury)
1mg IV bolus

Can repeat every 3-5 minutes, up to 3mg

ADRENALINE

2-10µg/min infusion
(Start at 0.05*µ*g/kg/min and titrate to effect)
OR / AND
TRANSCUTANEOUS PACING

CONSIDER

Transvenous pacing

If Beta Blocker or Ca Channel Blocker overdose, use **high dose insulin** (1U/kg) with **glucose and potassium** control.
Can consider Glucagon

SIGNS OF INSTABILITY

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

STABLE PATIENT

Monitor and observe
Refer for investigation

LOOK FOR AND TREAT REVERSIBLE CAUSES OF BRADYCARDIA

Hypoxia
Hypothermia
Head Injury
Hyperkalaemia
Heart Block
Hydrogen Ion (Acidosis)
Toxins
(e.g. organophosphates)
Therapeutic Agents (e.g. Beta Blocker or Ca Channel Blocker overdose)

PAEDIATRIC

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

Focus on correcting reversible cause.
Consider inotropes, atropine (in increased vagal tone) and pacing to manage specific causes in specialised settings