

# Guideline: Use of External Pacer

## Purpose

This guideline has been written to assist in the use and indications of external pacing.

## Responsibility

All EC medical and nursing staff  
All general medical staff

## Guideline

Transcutaneous Pacing is indicated in symptomatic / haemodynamically-significant bradycardia. It is a TEMPORARY procedure while arrangements for transvenous pacing are being made.


### Indications for Transcutaneous Pacing

Symptomatic / Haemodynamically-significant bradycardia

- Hypotension
- Anginal chest pain
- Pulmonary oedema
- Evidence of decreased cerebral perfusion

**NB: The maximum rate of our defibrillators is 180 bpm, therefore cannot be used for overdrive pacing**

### Procedure for Transcutaneous Pacing

Step	Action
1	Prepare Patient <ol style="list-style-type: none"> <li>a) Clean and shave skin where pads will be applied</li> <li>b) Explain procedure to patient / family</li> <li>c) Apply defibrillator pads to patient and attached to defibrillator</li> </ol>
2	Turn defibrillator switch anticlockwise to pacing mode (as per red solid arrow) <div style="text-align: center; margin-top: 10px;">  </div>
3	Pacing is set in demand mode (preferred as less risk of inducing an arrhythmia). Use soft keys to change if required.

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4	Dial up rate (bpm) – usually 60-70 bpm Dial up current (mA) - start from minimum output
5	Step 4 automatically commences Transcutaneous Pacing a) Increase current until electrical capture achieved ( <i>this is indicated by each pacing spike being followed by a broad QRS complex</i> ) by slowly turning the dial. b) Once electrical capture has been achieved, ensure that there has been mechanical capture ie. a palpable pulse with each QRS complex. Bedside ultrasound may be useful in determining mechanical capture c) Continue pacing at an output level just above threshold of initial electrical capture
6	Ensure that the patient is comfortable – they will require analgesia and sedation Eg – titrated IV opioid and IV benzodiazepine
7	Ongoing monitoring of patient a) Haemodynaminc state b) Check Defibrillator Pads and Skin every 30 minutes
8	Treat underling aetiology of bradycardia if able
9	Ensure arrangements for Transvenous Pacing have been initiated

## References

Nil

## Definitions

Terms and abbreviations used in this document are described below:

Term/Abbreviation	Description

## Associated Documents

Other documents relevant to this guideline are listed below:

<b>NZ Legislation</b>	
<b>CMDHB Clinical Board Policies</b>	
<b>NZ Standards</b>	
<b>Organisational Procedures or Policies</b>	
<b>Other related documents</b>	

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