

# EXTERNAL PACING PROCEDURE

## Phillips HeartStart MRx



### INDICATION:

Bradycardia with poor perfusion: - unresponsive to atropine or IV fluids; or  
- where IV access cannot be obtained.

(Pacing is preferred over an adrenaline infusion for post cardiac arrest bradycardia)

### PROCEDURE:

1. Explain the procedure to the patient and family
2. Set up an adrenaline infusion, if IV access obtained
3. Ensure ECG electrodes are well off the chest
4. Prepare skin for pacing electrodes (clip back/chest hair – **no shaving, no alcohol**)
5. Position defib pads:
  - a. **anterior** electrode in approximately V2/V3 12-lead position, horizontally (avoid the nipple, sternum and diaphragm)
  - b. **posterior** electrode at left vertebral edge, below bony prominence of scapula, vertically
6. Turn the **[Therapy Knob]** to the **[Pacer]** position. The message “Pacing Paused” appears in the status block and indicates that the pacing function is enabled, however pacing pulses are not yet being delivered
7. Press the **[Lead Select]** button to select the best lead (i.e. the lead with the most easily detectable R-wave)
8. Verify that the white R-wave markers appear above or on the ECG waveform. A single marker should be associated with each R-wave. If the R-wave markers do not appear or do not coincide with the R-wave, select another lead
9. Press **[Pacer Rate]** and use the **[up/down arrow]** buttons and **[Menu Select]** button to select the desired number of pace pulses per minute – rate should be set at 50% over the initial bradycardia
10. Press **[Pacer Output]** and use the **[up/down arrow]** buttons and **[Menu Select]** button to select the lowest current output (10mA)
11. Press **[Start Pacing]**. The message “Pacing” appears
12. Verify that the pacer is sensing (white markers on the ECG waveform)

**continues over**

## EXTERNAL PACING PROCEDURES – cont.

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#### PROCEDURE (continued)

13. Press **[Pacer Output]**, then use the **[up/down arrow]** buttons and **[Menu Select]** button to:
  - a. increase the output until cardiac capture occurs (rarely under 60mA). Capture is indicated by the appearance of a QRS complex immediately after each pacing marker (also a wide / changed QRS and a big T wave)
  - b. increase current output by 5mA over initial capture value
14. Check mechanical capture (palpable pulse, ↑ LOC ↑ BP)
15. Ensure analgesia is provided
16. Continue to ensure electrical and mechanical capture
17. Adjust rate and current output as required

#### NOTES:

- Spontaneous beats which are not associated with pacing may occur. This is a normal variance.
- If the patient's heart rate is above the pacer rate, pace pulses are not delivered and, therefore, pacing markers do not appear.
- To stop delivery of pace pulses, press **[Pause Pacing]**. Once paused, press **[Resume Pacing]** to resume delivery of pace pulses. Moving the **[Therapy Knob]** off the **[Pacer]** position will also stop delivery of pace pulses.