Use of a pacemaker for a cardiac surgery patient

Assessment of competences for ANP

**Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Please note: Practitioners can add DOPS, PBAs and CEXs as evidence.**

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| --- | --- | --- | --- |
|  | **NOT competent** | **Competent** | **Signature and date** |
| Pacemakers |
| 1 | Different types* Permanent
* Temporary – temporary box, temporary wire, external pacing, oesophageal
 |  |  |  |
| 2 | Indications* Augment cardiac output
* Back up device if heart rate slow/absent
* Describe atrial and ventricular wire position
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| 3 | Temporary box modes* DDD
* VVi
* AAi
* DOO
 |  |  |  |
| 4 | Sequel of lettering* Chamber paced
* Chamber sensed
* mVol delivered/inhibited
 |  |  |  |
| 5 | Function of setting* Rate dial
* AV function
* Sensing function
* Output function
* Emergency pacing
* Setting the mode
* Battery check and change
* ECG off pacing, pause/reduce rate/reduce output NOT turn off or unplug leads
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| 6 | Sensitivity (pt must have an underlying rhythm)* Set rate at least 10 ppm below patient’s intrinsic rate
* Adjust output: Set OUTPUT to 0.1 mA (A OUTPUT for atrial threshold; V OUTPUT for ventricular threshold)
* Highlight SENSITIVITY (atrial or ventricular)
* Turn SENSITIVITY to max. Decrease SENSITIVITY: reduce until pace indicator flashes continuously
* Increase SENSITIVITY: Slowly turn until sense indicator flashes and pace indicator stops flashing. This value is the sensing threshold.
* Set SENSITIVITY to half (or less) the threshold value. This provides at least a 2:1 safety margin.
* Restore RATE and OUTPUT to previous values
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| 7 | Output* Set RATE at least 10 ppm above patient’s intrinsic rate
* Decrease OUTPUT until ECG shows loss of capture
* Increase OUTPUT until ECG shows consistent capture. This value is the stimulation threshold.
* Set OUTPUT to a value 2 times greater than the stimulation threshold value. This provides at least a 2:1 safety margin.
* Restore RATE to previous value.
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| 8 | Troubleshooting* Start at patient and work back to box
* Patient, wire check at skin
* Correctly connected – right sided atrial, left sided ventricular. Wires intact.
* Battery check
* Setting review
* Sensitivity check
* Output check
* Change box
* Escalate
* Percussion pace
* External pacing
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| 9 | PPM insertion* Indications:
* Persistent bradycardia with haemodynamic compromise
* Augment cardiac output
* MDT liaison
* Coagulation screen
* Request process, paperwork and MDT liaison
* Consent
* Post-procedure review of site – complications and care
* Post-procedure CXR (lateral and PA), confirm leads placement correct and exclude pneumothorax
* Review of arm movement
 |  |  |  |
| 10 | Emergency pacing* Patient sedation
* MDT liaison
* External pad placement
* Attached ECG leads
* Turn on defib machine
* Turn on pacer mode
* Press start
* Set rate
* Turn up MVl until capture
* Confirm plan for ongoing management
 |  |  |  |
| **Assessor’s comments**: |
|  |
| **This practitioner has completed these outcomes to the appropriate standard.****Assessor’s name:****Signature and date:** | **Practitioner’s signature:****Date:** |