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 |  |  |  |
| 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 |  |  |  |
| 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 |  |  |  |
| 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. |  |  |  |
| 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 |  |  |  |
| 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:** | | |