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### Pacemaker - Transvenous Placement/Care

**Purpose:**

1. To establish guidelines for insertion of temporary pacemakers in ICU.
2. To provide guidelines for monitoring patients with temporary pacemakers in ICU.

**Policy:**

1. Temporary pacemakers shall be inserted by a physician in the ICU.
2. Temporary pacemakers shall be inserted using fluoroscopy whenever available. When fluoroscopy is utilized, a staff physician or a cardiology fellow shall be present.
3. Pacemaker settings, capture, sensitivity and threshold shall be documented every shift on the nurses' notes.
4. Any abnormalities or dysrhythmias shall be reported to the physician and documented on the nurses' notes.
5. New batteries shall be placed in the generator at the beginning of each use. The batteries shall be tested prior to insertion.

**Equipment:**

Pacing electrode  
Pacemaker cables  
Pacemaker generator with battery  
Sterile sheets (3)  
Sterile towels (4)  
Masks and sterile gowns  
1% Xylocaine with Epinephrine  
Antimicrobial preps  
Suture with needle - 2-0 silk  
Arrow Introducer kit

**Procedure:**

<b>Responsible Party</b>	<b>Action</b>
MD	1. Explain procedure to patient and family
	2. Obtain consent for procedure.
	3. Place patient NPO except for meds.
RN	4. Maintain a patent IV.
	5. Move EKG electrodes so that they will not be in the sterile field. Assure that tracing is without interference.
RN/MD/Rad Tech	6. Setup fluoroscopy machine and move in place.
RN/MD	7. Place patient in appropriate position.
	8. Perform Time Out and document.
	9. Notify cardiology of temporary pacer placement.

Responsible Party	Action
MD	10. Perform a surgical scrub of insertion site. 11. Don surgical hat and mask. 12. Perform a surgical scrub on hands. 13. Don gown and sterile gloves. 14. Perform procedure according to established medical protocol.
RN	15. Monitor and document vital signs during and after procedure. Include distal pulses to the catheter if an extremity is used for access. 16. Dress pacemaker site with sterile transparent dressing. 17. Check pacemaker settings: sensitivity, capture and threshold. Document these findings. 18. Obtain a rhythm strip and document procedure in the nursing notes, as well as, patient's response to the procedure. 19. Restrict the patient's activity as ordered by the MD. 20. Observe for the following complications: <ul style="list-style-type: none"> <li>a) Loss of capture</li> <li>b) R on T phenomenon</li> <li>c) Pacer sensing and appropriateness</li> </ul> 21. Notify MD of abnormalities or change in patient's condition.

**References:**

1. Chulay, M. & Burns, S. (2006). AACN: Essentials of Critical Care Nursing.
2. Infection Control Guidelines IC 16
3. Wiegand, D & Carlson, K. (2005). AACN: Procedure Manual for Critical Care.