PURPOSE:
The transmitter detects, amplifies, and converts a patient’s electrical cardiac activity and pacemaker artifacts to frequency-modulated audio tones for transmission via the telephone to an electrocardiogram (EKG) receiver. From the transmitted signals, the EKG receiver provides an EKG strip recording and print out of the rate and pulse width(s) of a patient’s implanted pacemaker.

CONSIDERATIONS:
1. Implantable transtelephonic pacemaker monitoring should be done at the intervals that the physician prescribes.
2. The nurse may transport the transmitter equipment to the patient’s home or it may be given to the patient by the physician’s office.
3. Communication between the nurse and the physician’s office is indicated to assure an adequate EKG strip is obtained.
4. Never perform a magnet test before receiving instructions from the technician.
5. To enhance transmission quality:
   a. Make sure all nearby appliances are turned off.
   b. Make sure the patient does not touch anything metal during the test.
   c. The wires attached to the right and left bracelets should not be tangled.
   d. The patient must remain in a quiet and still position while transmitting.
6. Transmitter functions:
   a. On/Off switch - used to turn the transmitter on and off.
   b. Patient Signal Light:
      (1) Will flash On/Off when the transmitter is turned on.
      (2) Will flash and the transmitter will beep after the transmission is completed.
      (3) This light will also flash if there is a problem with the transmission, indicating that you should speak with the technician to receive further instructions.
   c. Electrode Plug - Snap securely into the transmitter outlet.
7. Changing the transmitter battery:
   a. Turn the On/Off switch to the Off position.
   b. Remove the cover of the battery compartment by pushing upward on the grooved ridge of the cover.
   c. Properly dispose the old alkaline battery by placing in plastic resealable bag.
   d. Place the new battery (9 volt alkaline) in the battery compartment by matching the shapes of the battery terminals to the markings on the top edge of the transmitter.
   e. Make sure the edge of the battery cover labeled TOP is pointing up, then slide the cover back in its groove. Push downward on the grooved ridge of the cover until it clicks shut.

EQUIPMENT:
Transtelephonic EKG Transmitter

PROCEDURE:
1. Adhere to Standard Precautions.
2. Explain procedure to patient.
3. Preparation before making a transmission:
   a. Moisten the forearms of both the patient’s right and left arms with water.
   b. With the palms of the right and left hands up, slide the bracelet labeled right up the right arm until snug then slide the bracelet labeled left up the left arm until snug, approximately 3 inches below the elbow.
   c. Moisten the patient’s right forearm with water.
   d. Slide the bracelet labeled right up the right arm until snug, approximately 3 inches below the elbow.
   e. Moisten the instep of the patient’s left bare foot.
   f. Slide the bracelet labeled left up the left bare foot with the plate on the top of the instep.
   [Note: The technician will identify which procedure to follow if transmitting for the first time.]
4. Sending a non-magnet test:
   a. Turn on the transmitter. The transmitter will emit a series of tones indicating that it is ready to use. If no tones are audible when the transmitter is turned on, replace the battery.
   b. Place a telephone call to the number indicated with the equipment. When instructed by the technician, place mouthpiece of the telephone on the speaker part of the machine.
   c. Wait approximately 30 seconds or until the patient alert light comes on when making non-magnet and magnet tests.
   d. Always turn the unit off when not in use.
5. Sending a magnet test:
   a. Place the mouthpiece of the telephone on the speaker-part of the machine and count to 10.
   b. Place the blue magnet over the pacemaker on the bare skin and count to 30.
   c. Remove magnet.
   d. Pick up the telephone and speak to the technician.
   e. Always turn the unit off when not in use.
6. Repeat the non-magnet test.

AFTER CARE:
1. Cleaning the transmitter:
   a. Clean with a cloth dampened with a mild soap.
   b. After each use, dry wrist electrodes with a towel or soft tissue.
   [Note: Do not submerge the transmitter in water or any other liquid.]
2. Document in the patient’s record:
   a. Completion of transtelephonic pacer monitoring.
   b. The name of the physician who obtained the EKG.
   c. Order for next pacer monitoring.
   d. Vital signs from this visit.
   e. Instructions to patient/caregiver.
   f. Patient’s response to procedure.
   h. Communication with physician.

REFERENCES: