CONSIDERATIONS:

1. Point-of-Care (POC) PT/INR meters are a convenient and quick way to determine if a patient's warfarin (Coumadin) dose is keeping the patient's clotting time within the desirable range.
2. The Roche Coaguchek XS System is in use in this agency. This meter can be used to determine PT/INR for patients who are prescribed Coumadin, even when also receiving heparin or Lovenox therapy. Testing should be done at least 3 hours after the most recent heparin or Lovenox dose administration.
3. Physician orders are needed to perform a PT/INR with a POC device. The clinician cannot substitute the POC device for a venipuncture order.
4. Read the device's directions carefully. Some specific requirements of the Coaguchek include:
   a. Monitor and test strips must be at room temperature prior to the test (between 59 °F and 90 °F)
   b. Check test strip packet. Strips will not be accurate if exposed to humidity or if expired
   c. Assure codes on test strips match code chip in monitor
   d. If a patient has a hematocrit <30 or >50 the INR result will appear followed by a "c". Notify the MD that the meter is indicating that the hematocrit may be out of range and may be interfering with the INR reading. Recommend a venipuncture test be performed.
   e. A large drop of hanging blood is required. Milking the finger will produce false results.
5. Usually, the target PT/INR is 2.0 to 3.0. The target for mechanical heart valves is usually 2.5 to 3.5. Individualized parameters for the patient should be obtained.
6. The PT/INR device must be adequately cleaned between patients, following manufacturer's directions.

EQUIPMENT:

PT/INR Point-of-Care device
Non-sterile gloves
2 x 2 gauze or cotton ball
Lancet
Test strip
Alcohol swab
Sharps container
Pipette or syringe, if indicated

PROCEDURE:

1. Adhere to Standard Precautions, explain procedure to patient/caregiver and assemble supplies.
2. Ask patient to warm hands (wash in warm water, rub hands briskly) to increase circulation.
3. Position patient next to a flat hard surface.
4. Turn on meter. Verify strip code with machine code.
5. Gently massage finger from hand to finger tips several times to increase blood flow. Avoid excessive squeezing or "milking" which will cause tissue fluid to be expressed, compromising specimen integrity.
6. Clean site with alcohol pad. Allow to air dry.
7. Prepare the lancet in the finger puncture device according to the instruction of specific device, or if using a lancet, hold the lancet between the thumb and forefinger.
8. Grasp the patient's finger firmly with other hand.
9. Firmly place the finger puncture device or lancet to the finger and prick finger.
10. Drop lancet in sharps container.
11. Allow drop of blood to form. If blood flow is inadequate, gently message the proximal portion of the finger and then press firmly on the distal joint of the finger.
12. A well-beaded drop of blood should form at the puncture site.
13. Absorb the blood drop with the test strip or capillary tube. The meter can be held in the clinician's hand and brought to the patient's finger in order to obtain the blood specimen. The meter will beep when an adequate amount of blood has been applied to the strip.
14. Ask patient to place firm pressure on puncture site with 2 x 2 gauze until bleeding stops.
15. Place the meter on a flat surface until a result is displayed. Avoid touching, moving, disturbing or removing the test strip while the meter is testing the blood sample.
16. Record PT/INR result.
17. If meter indicates error, refer to error codes for meaning and resolution.

AFTER CARE:

1. If result is outside parameters, before calling physician, review with the patient/caregiver:
   a. Adherence to warfarin regime
   b. Dietary changes that could cause PT/INR to be outside parameters
   c. Any signs/symptoms associated with abnormal PT/INR level
2. Document in patient record:
   a. PT/INR reading
   b. Presence or absence of signs and symptoms if reading was abnormal
   c. Any instructions given to patient/caregiver
   d. Any communication with physician
3. Communicate with physician about:
   a. Individualized patient parameters
   b. Readings that are outside parameters
   c. Orders to adjust warfarin dose, if given

4. Assure meter is cleaned and maintained according to manufacturer's instructions.
5. Return supplies to designated area.

REFERENCE:

FDA (2010). Use of Fingerstick Devices on More than One Person Poses Risk for Transmitting Bloodborne Pathogens. Retrieved on May 31, 2012 from http://www.fda.gov/MedicalDevices/Safety/%20AlertsandNotices/ucm224025.htm.

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