

PROCEDURE

ORIGINAL DATE: 11/03

REVISION DATE: 06/12

SUBJECT: PROTHROMBIN TIME (INR) TESTING WITH THE INRATIO SYSTEM

PURPOSE: To obtain PT/INR results in the home using an INRatio Meter (HemoSense)

Considerations

1. The INRatio System uses a modified version of the one-stage Prothrombin time (PTT) test.
2. Storage of strips:
 - Strips should be stored between 35degrees F and 90 degrees F. Extreme cold or heat will result in inaccurate readings.
 - Store strips in their original foil pouch until ready to use.
3. Limitations of Procedure:
 - The INRatio System is designed to use fresh capillary whole blood only. The drop of blood must be a minimum of 15 µL.
 - The INRatio system has a PT measuring range of 7 to 75 seconds (0.7 to 7.5 INR units)
 - This test should not be used for patients on heparin therapy or low molecular weight anticoagulants (Arixtra or Lovenox)

Equipment

INRatio Meter
Gloves
Automatic lancing device
INRatio test strips
Alcohol wipe
2x2 gauze
Puncture-proof container
Impervious trash bag

Procedure

1. Obtain physician's order for PT/INR testing using INRatio system.
2. Adhere to Standard Precautions
3. Explain procedure and its purpose to patient/caregiver.
4. Assemble the equipment on a clean surface.
5. Turn the meter on. After an electronic self-test, INSERT STRIP will appear on the meter display. Do not move meter during testing.
6. Open test strip foil pouch and remove the test strip. Insert the strip into the meter with "HemoSense INRatio" readable at the bottom of the test strip.
7. Check that the strip code matches the one on the test strip pouch when: STRIP CODE

####? appears on the display. Correct code as necessary.

8. Wait while the strip and machine warms up, the machine will display WARMING UP.
9. The meter will beep and APPLY SAMPLE will appear on the meter display. The green sample target light will also appear through the test strip sample well.
10. Perform a finger stick using a safety lancet, collecting a large hanging drop of blood on the finger using gentle, continuous pressure. **NOTE: Do not use firm repetitive pressure to collect the blood.**
11. Apply blood to the sample well on the test strip.
12. Wait while the meter performs the test and calculates the results. The message, TESTING SAMPLE will be displayed.
13. The meter will beep and the results will be displayed.
14. Discard soiled supplies in appropriate container.

After Care

1. Document in the patients record:
 - Results of the INRatio monitoring under LAB tab in the palm
 - Instructions given to patient/caregiver
 - Communication of results to MD: (INR Values greater than 5 are considered a critical value) **Document in call log:**
 - a. PT/INR=XX/XX in subject heading
 - b. What office/facility was called
 - c. Name and title of person taking result
 - d. New orders-Coumadin dosing and next lab due
 - e. Patient instruction
 - **Documentation of orders** received in clinical orders:
 - a. Date of next PT/INR test with corresponding visit
 - b. Document PT/INR due in visit memo
 - c. Update medication dose in med list

Cleaning of outside of Meter

1. Periodic cleaning of exterior surface of meter is recommended. Always clean meter when soiled.
2. If the meter becomes contaminated with blood, clean with a soft cloth slightly dampened with 70% alcohol solution.
3. Gloves are worn to perform cleaning.

Quality Control

Quality Control is important to ensure the user's technique, integrity of the test strip and performance of the whole system. Each INRatio test strip incorporates two control channels that automatically test a low and high control each time a sample is tested. If the controls are in range, the display will read QC okay. Check the column QC okay on the PT INR test log. If the control results are out of range, a warning, ERROR QC will appear on the display, and no results will be reported. Repeat the test, and if meter still gives warning, call HemoSense Technical Service at 1-877-436-6444.

References

1. Hirsch, J., ET. Al, Oral Anticoagulants: mechanism of action, clinical effectiveness and optimal therapeutic range. Chest. 1992; 102 (suppl):312s-325s.
 2. WHO Expert Committee on Biological Standardization. 33rd report. World Health Organ Tech Rep Ser: 1983; 687:24-25.
 3. INRatio Packet Insert and Manufacturer instructions
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Approved Policy Committee: 06/12

Responsibility: Nursing staff, Nurse Managers, Director of Quality Improvement, PIC, Director of Clinical Services

Distribution: Clinical Leadership, Director of Quality Improvement
