

Hemostasis - Basic of the International Normalized Ratio (INR)

INR & ITS COMPONENTS

1. The Prothrombin Time was first used as a:
 - a. Screening test for bleeding disorders
 - b. Specific assay for detecting anticoagulant in the blood
 - c. Global assay for factor activity
 - d. Diagnostic test for Vitamin K deficiency

2. Within the INR equation, the numerator is the:
 - a. Control time in seconds
 - b. Patient's time in seconds
 - c. Normal range high-end value in seconds
 - d. Normal range mean value

3. The ISI is an acronym for:
 - a. International Sensitivity Index
 - b. Internal Selectivity Icon
 - c. Intellectual Stimulator Index
 - d. International Specificity Input

4. Which one of the following is true?
 - a. The higher the ISI, the higher the sensitivity
 - b. The lower the ISI, the lower the sensitivity
 - c. The higher the ISI, the lower the sensitivity

5. The mean of the Normal Range should be calculated:
 - a. Arithmetically from outpatient samples
 - b. Geometrically from inpatient samples
 - c. Geometrically from healthy donors
 - d. Exponentially from 120 healthy donors

HISTORY & BIOCHEMISTRY

1. Vitamin K is needed in the body to:
 - a. Help the body to bleed
 - b. Help the body to clot
 - c. Help the body make other vitamins
 - d. Help the body make warfarin

2. The first International Reference Plasma (IRP) was developed by the World Health Organization (WHO) because:
 - a. A standard was needed for PT reagents
 - b. A new reagent was needed for heparin testing
 - c. A new control was needed for PT testing
 - d. A normal plasma was needed for warfarin testing

3. Which one of the following is not a true statement:
 - a. Oral anticoagulants should be monitored to prevent stroke
 - b. Too much oral anticoagulant could cause a thrombotic event
 - c. Warfarin can be used for patients with a hereditary disease
 - d. Bleeding can occur if the oral anticoagulant is not properly monitored

4. Complete this statement: As a patient is started on oral anticoagulant therapy

 - a. His body will take up to 10 days to adjust to a stable INR.
 - b. He should no longer be given heparin.
 - c. All of his factors will decrease at the same rate.
 - d. He should be given lots of Vitamin K.

5. Which of the following might cause warfarin to act stronger?
 - a. Vitamin K
 - b. Oral Contraceptives
 - c. Antihistamine
 - d. Vitamin E

NCCLS GUIDELINES

1. Which of the following is not a pre-analytical variable for PT testing?
 - a. Hematocrit of sample
 - b. Heparin contamination
 - c. ISI of the reagent
 - d. Lipemia

2. What is a reference interval?
 - a. A range of values that resemble the population undergoing medical evaluation
 - b. A range of values from healthy, young individuals
 - c. A set of numbers that are calculated from testing abnormal patients
 - d. A set of numbers that are determined by the World Health Organization.

3. Transference is a term used by NCCLS that refers to:
 - a. Use of another lab's reference interval, no matter what PT method is used.
 - b. Acquisition of a reference interval from a lab with an identical analytical system for PT testing.
 - c. A method of calculating 120 samples for PT testing.
 - d. Transferring 120 patients from one geographic area to another.

4. According to NCCLS, what are the three things that can be reported with a PT result?
 - a. PT, ISI, Normal Range
 - b. PT, INR, Control result
 - c. PT, INR, Reference Interval
 - d. PT, IRP, Reference Interval

5. During which of the following situations would an INR of 3.3 be an appropriate therapeutic value for oral anticoagulant dosage?
 - a. Acute MI
 - b. Atrial Fibrillation
 - c. Headache
 - d. Mechanical Heart Valve

