Course Description

What is the significance of an elevated Mean Corpuscular Volume (MCV)? What does an elevated blood urea nitrogen (BUN) level with a normal creatinine level indicate? What is the diagnostic difference between ST depression and ST elevation? How does pregnancy affect fibrinogen or platelet levels?

This seminar will look at the answers to these and many other questions regarding laboratory and diagnostic tests. Participants will learn the significance of both the normal findings of numerous commonly ordered laboratory tests as well as the implications of various abnormalities. The course is loaded with case studies to bring laboratory abnormalities to life. Content will cover everything from hematology to chemistry studies, liver function tests to kidney function tests, as well as topics such as interpreting the urinalysis, the electrocardiogram and the chest X-ray. The effects of factors such as age and pregnancy will also be considered. This seminar is meant to enhance the practice of healthcare workers in all clinical areas, from critical care to medical-surgical, surgical services to rehabilitation services.

Program Learning Outcomes

This program prepares the learner to:

- List the order that blood tubes should be drawn.
- Verbalize at least three factors when performing phlebotomy that can alter the reliability of blood tests.
- Differentiate between specificity and sensitivity when analyzing blood test results.

Agenda

Sign-in begins at 7:30 am. Each day includes a one-hour lunch (on your own), as well as a morning and afternoon break of 15 minutes each. The order of lectures presented and break times may vary according to speaker preference.

Day 1, 8:00 am to 4:00 pm

Overcoming Analysis Paralysis: An Introduction to Laboratory Tests
Definitions | Phlebotomy | Units of Measure

Untangling the Alphabet Soup of Hematology Studies

The Positives and Negatives of Electrolyte Studies
Potassium Imbalances | Sodium Imbalances | Chloride Imbalances | Magnesium Imbalances | Calcium Imbalances | Phosphate Imbalances

CSI: Culture and Sensitivity Investigations
Basics of Microbiology | Collecting Various Cultures | Markers for Infection and Sepsis

Lunch 12:00 pm to 1:00 pm

Minding Your “Pees” and “Q’s”: Renal Function Tests
Blood Urea Nitrogen | Creatinine | Osmolality | Urinalysis

More Alphabet Soup: Liver Function and Pancreatic Function Tests
Liver Enzymes | Ammonia Levels | Bilirubin | Albumin | Lipase and Amylase

Plugging Up the Mysteries of Coagulation Studies
Prothrombin Time and Partial Thromboplastin Time | Platelet and Fibrinogen Levels | Fibrin Degradation Products

What a Bloody Mess: The Blood Bank
Differentiating Blood Types | Blood Transfusions and Reactions | Coombs Test
Agenda

Day 2, 8:00 am to 4:00 pm

Arterial Blood Gas Interpretation for the ABG Challenged
Basic Blood Gas Abnormalities | Mixed Blood Gas Abnormalities | Partially Compensated and Compensated Blood Gas Abnormalities

It’s All Shades of Gray to Me: Interpreting the Chest X-Ray

Testing Through the Ages
Geriatric Patients | Pregnant Patients

Heart Smarts: Lipid Profiles and Cardiac Enzymes
Lipid Profiles | Cardiac Enzymes

Case Studies: Group Work

Lunch 12:00 pm to 1:00 pm

Squiggles and Squawks: Interpreting the 2- and 12-Lead ECG
Basics of Electrophysiology | Approaching 2-Lead ECGs | Differences Between 2-Lead ECGs and 12-Lead ECGs | The 12-Lead ECG and the MI

Review of Case Studies

Accreditation

RN/LPN/LVN/Other: 13 Contact Hours
RT: 13 Category 1 CRCE Hours

MED-ED, Inc. is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center’s Commission on Accreditation (ANCC).

MED-ED, Inc. is an approved provider by the following State Boards of Nursing: Florida/FBN 50-1286, Iowa/296, California #CEP10453.

If your profession is not listed, we suggest contacting your board to determine your continuing education requirements and ask about reciprocal approval. Many boards will approve this seminar based on the accreditation of the boards listed here.

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