

# Clinical Application and Interpretation of Lab Values and ABGs

Contact hours: 6.75

## Introduction:

Lab values...lots of numbers to look at and yes, they do all make sense when you know to look for.

Using a physiologic approach you will understand which lab values go together and why the various combinations exist. Expected clinical manifestations and treatment modalities are also included as well as monitoring parameters to know when conditions are improving.

Considerations in the elderly population are also included along with some interfering factors affecting valid lab results.



Lab abnormalities include:

- Electrolytes and hydrogen
- Renal function and hydration
- Inflammatory and infectious processes including the importance of lactate levels and anion gap
- Values affecting cardiovascular function including BNP
- Hematologic disorders and coagulation factors
- Pancreatic function
- Liver function and nutritional values
- Endocrine and metabolic
- Cancer screening and diagnostics
- Acid-base imbalances and a simplified way to figure out and apply blood gas values in the clinical setting

## Objectives:

1. Verbalize an understanding of the various lab abnormalities associated with electrolyte imbalances, renal dysfunction, and hydration.
2. Identify the abnormal lab values seen in patients with inflammatory, infectious, and cardiovascular disorders.
3. Demonstrate an understanding of the lab abnormalities which are diagnostic in patients with disorders of the hematologic system.
4. Compare the lab values seen in dysfunctions of the gastrointestinal tract and those associated with the evaluation of nutritional status.
5. Describe the lab values used in the evaluation of patients with endocrine disorders and cancer.
6. Demonstrate the basic ability to interpret arterial blood gases and correlate the findings to various pathologic conditions.

Recent seminar participants had this to say about “Clinical Application and Interpretation of Lab Values and ABGs”

*“Big time help in understanding the underlying patient problems. Thanks for simplifying so many labs including anion gap!”*

*“Very good program with lots of good information. The detailed outline with serve as a great reference to go back to.”*

*“I really needed this refresher. The ABG section was especially good. Thanks!”*



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