

Diagnosis and Management Internal Disorders  
#1006 – Natural Strategies in Laboratory Testing

Title of Program: #1006 – Natural Strategies in Laboratory Testing  
Times: Saturday 9:00 am to 6:00 pm, Sunday 9:00 am to 1:00 pm  
Total CE hours: 12

Program Description:

This session provides an overview on the principles, practices, nomenclature, and utilization of laboratory testing in the diagnosis and management of internal disorders.

Program Goals / Objectives:

- At the end of this session, the student will have a detailed understanding of:
- Function of blood
- Efficacy of blood tests
- Use of routine laboratory tests
- Managing and monitoring disease processes with laboratory testing

Program Topics:

- General blood cell morphology
- Lipids and heart disease
- Components of comprehensive metabolic profile
- Hematological testing
- Thyroid tests

Program Outline:

Saturday

9:00 am – 10:00 am

Introduction

- Health concerns in the U.S. (based on a recent Gallup Poll)
- Tenets of natural health care that are becoming increasingly popular including clinical nutrition
- Satisfaction results with conventional treatments

10:00am-11:00am

- Examinations
- History, inspection, use of EKG, spirometry urinalysis, ortho/neuro, etc.
- Obtain blood samples (skin, venous, arterial puncture)
- Blood
- 2 components: plasma (liquid) and cells (solids)

11:00am-12:00pm

- Functions of blood
- Transportation, regulation body temp, pH regulation
- Blood biopsy must be correlated with entire clinical condition of patient

1:00pm-2:00pm

- Efficacy of blood tests
- General blood cell morphology
- Regulation of bone marrow activity
- Red cell production
- White blood cells
- Darkfield microscopy and abnormal cell morphology

2:00pm -3:00pm

- Introduction: lipids and heart disease
- Cholesterol subtypes and triglycerides
- Glucose
- Sodium
- Potassium
- Magnesium
- Chloride
- Carbon dioxide
- Blood urea nitrogen (BUN)
- Creatinine
- Uric acid
- BUN/Creatinine ratio
- Calcium
- Phosphorus

3:00pm- 4:00pm

- Total protein (albumin, globulin and fibrinogen)
- Albumin
- Calcium/albumin ratio
- Total globulin
- Albumin/globulin (A/G) Ratio

4:00pm-5:00pm

- Alkaline phosphatase (ALP)

- Gamma-glutamyl transpeptidase (GGT)
- Lactate dehydrogenase (LDH)
- Serum glutamic-oxaloacetic transaminase (SGOT) or AST
- Serum glutamic-pyruvic transaminase (SGPT) or ALT
- Bilirubin
- Serum iron
- Ferritin
- Transferrin

5:00pm-6:00pm

- Red blood cell count and erythrocytosis
- Hemoglobin and hematocrit
- Wintrobe indices: MCV, MCH, MCHC
- RDW, TIBC
- Reticulocyte count (TIC)
- Anemias
- Microcytic
- Macrocytic
- Sideroblastic
- Megaloblastic

Sunday

9:00am-10:00am

- Understanding and managing thyroid disease
- Anatomy and histology of the thyroid
- Hormone synthesis
- Circulating iodothyronine hormones

10:00am-11:00am

- Iodothyronine hormone metabolism
- Hormonal influences on thyroid function
- Central regulation
- Peripheral regulation
- Laboratory testing

11:00am-12:00pm

- Basic lab testing
- Thyroid stimulating hormone (TSH)
- Total T4
- T3 uptake
- T7 (free thyroxine index or FTI)

- Total T3 (rarely)
- Other Lab Testing
- Free T4 (FT4)
- Free T3Reverse T3
- Autoimmunity testing

12:00pm-1:00pm

- Hypothyroidism
- Hyperthyroidism
- Shortcomings of conventional treatment of thyroid disorders

Instructional Methods:

Lecture, practical demonstrations and case presentations.

Assessment Methods:

Students will be required to run a chemistry panel, write up a differential diagnosis with a minimum of 3 different diagnoses along with a treatment plan and submit to the instructor by Session 6.