The CATH LAB SERIES Presents:

12 LEAD ECG INTERPRETATION

IN

ACUTE CORONARY SYNDROME

With CASE STUDIES

from the

CARDIAC CATHETERIZATION LAB

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TARGET AUDIENCE:

This book is intended for medical professionals whom are competent in basic single lead ECG rhythm strip analysis, and desire to learn the basic concepts of 12 lead ECG interpretation, and to identify 12 lead ECG patterns associated with Acute Coronary Syndrome (ACS). It is not intended to teach “basic single-lead rhythm strip analysis.”

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BOOK DESCRIPTION:

12 Lead ECG Interpretation in Acute Coronary Syndrome with Case Studies from the Cardiac Catheterization Lab

This 304 page full-color textbook was written and edited by veteran cardiac cath lab interventionalists, and is essentially two volumes in one. The first 92 pages present the basic principles of 12 lead ECG interpretation. The remainder of the book focuses on the evaluation of Acute Coronary Syndrome (ACS) patients.

13 ECG patterns associated with ACS are presented, including the most subtle ECG changes most often missed by clinicians and the ECG machine’s automated interpretation software. The curriculum provides an in-depth, balanced approach to patient assessment, combining advanced ECG interpretation skills with patient history, risk factor and cardiac marker evaluation.

Correlation of ECG leads with the coronary arterial distributions which commonly supply each region of the heart are reinforced by use of 24 case studies of ST Segment Elevation Myocardial Infarction (STEMI), Non ST Segment Elevation Myocardial Infarction (NSTEMI), Unstable Angina, and Brugada Syndrome. STEMI Case Studies emphasize the ECG identification of the infarct related artery, and complications to be expected based on failure of cardiac structures commonly supplied by the obstructed arterial distribution.

Case studies begin with patients' initial assessment data obtained in the emergency department and continue into the cardiac catheterization lab where coronary artery angiography illustrates the location of arterial obstruction. Key learning objectives for each type of Myocardial Infarction (MI) are highlighted. 453 full color images, 135 review questions, and 114 ECGs reinforce the learning process.

Target audience is all medical professionals whom are already competent in single-lead rhythm strip evaluation, and desire to become proficient in the 12 lead ECG evaluation of Acute Coronary Syndrome patients. This book was written and reviewed by veteran cardiac cath lab interventionalists.

An instructor’s package with PowerPoint slides is also available from TriGen Publishing: www.TriGenPress.com

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THIS BOOK is the first of three “Cath Lab Series” textbooks which focus the correlation of ECG findings with the diagnosis of potentially lethal conditions as seen in the cardiac catheterization and electrophysiology labs. An overview of book contents are listed below:

BOOK 1 (This book):

“12 Lead ECG Interpretation and ACUTE CORONARY SYNDROME with Case Studies from the Cardiac Catheterization Lab.”

- 12 Lead ECG Interpretation
- ST Segment Elevation MI (STEMI)
- Apical Ballooning (“Broken Heart”) Syndrome
- Non ST Elevation MI (NSTEMI)
- Unstable Angina
- Brugada Syndrome

BOOK 2 (Coming soon):

“CARDIAC DYSRHYTHMIAS from the Electrophysiology Lab.”

- Wide Complex Tachycardias
- Narrow Complex Tachycardias
- Heart Blocks and Bradycardias
- Atrial Fibrillation / Atrial Flutter
- ACLS Algorithms / Cardiac Arrest Rhythms
- Wolff-Parkinson-White Syndrome
- Brugada Syndrome (with EP studies)
- Long Q-T Syndrome

BOOK 3 (Coming soon):

“12 Lead ECG Case Studies of Non-ACS CARDIAC EMERGENCIES from the Cardiac Catheterization Lab.”

- Hyperkalemia
- Pulmonary Embolus
- Pericardial Tamponade
- Acute Mitral Valve Rupture
- Acute Ventricular Septal Rupture
- Acute Myocarditis
- Acute Pericarditis
- Idiopathic Hypertrophic Subaortic Stenosis

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ECG EDUCATION SEMINARS AVAILABLE from ECGTraining.org:

🔗 OFFERED AT OUR TRAINING SITE in TAMPA, FLORIDA, or ON-SITE AT YOUR LOCATION.

“12 Lead ECG Interpretation and Acute Coronary Syndrome - an Interactive Workshop”

The first four hours of this workshop covers the fundamental concepts of 12 lead ECG Interpretation. The second four hours covers Acute Coronary Syndromes. Program specific topics are listed in the Course Syllabus, below.

The educational format we use consists of basic instruction in each topic, followed by hands-on practical skill sessions where students interpret practice ECGs, and written exercises designed to reinforce the student’s knowledge of essential concepts. The curriculum content and order of presentation is consistent with that of this textbook.

The program consists of 1400+ PowerPoint images which include: 12 Lead ECGs, Coronary Artery Angiography from the Cath Lab, and Animated Graphics designed to enhance the learning process.

This book is designed to be used as the workshop hand-out. It is also designed to be used as a “stand-alone” textbook. Students attending the workshop will want keep the book for future reference.

Course Syllabus:

Session I - 12 Lead ECG Interpretation (4 hours):
- Essential Cardiac Anatomy and Physiology
  - Coronary Artery Anatomy
  - Cardiac Electrical System
- Basic ECG Principles
- Waveforms and Intervals
- QRS Patterns
- Bundle Branch Blocks
- Chamber Hypertrophy
- Axis Deviation and Rotation

Session II - Acute Coronary Syndrome (4 hours):
- Acute Coronary Syndrome Patient Evaluation and Management
- 12, 15, and 18 Lead ECGs
- ECG Patterns of Myocardial Infarction and Ischemia
- ST Segment Elevation Myocardial Infarction (STEMI)
  - Identification of Zone of Infarction
  - Identification of Occluded Artery
  - Specific Management Considerations for each Type of MI
- Cardiac Markers
- Non-ST Segment Elevation Myocardial Infarction (NSTEMI)
- Unstable Angina
- Brugada Syndrome

TIME: 8 hours
PRE-REQUISITES: Ability to interpret single-lead rhythm strips (ACLS level proficiency)
INSTRUCTOR: Wayne Ruppert
COURSE MATERIAL: PowerPoint Handout (included in basic tuition cost) or this textbook (optional)
STATUS: Currently available. For more information, contact: editor@TriGenPress.com
**ECG EDUCATION SEMINARS AVAILABLE from ECGTraining.org:**

“ECG Case Studies of NON-ACS EMERGENCIES From The Cardiac Catheterization Lab”

This four hour workshop provides an in-depth review of conditions where ECG diagnoses are validated or ruled out by Cardiac Catheterization. Educational curriculum includes ECG diagnostic criteria and actual case studies which start with the patient’s initial evaluation and follow the patient into the Cardiac Cath Lab.

- Hyperkalemia
- Pulmonary Embolus
- Pericardial Tamponade
- Acute Mitral Valve Rupture
- Acute Ventricular Septal Rupture
- Acute Myocarditis
- Acute Pericarditis
- Idiopathic Hypertrophic Subaortic Stenosis

**TIME:** 4 hours  
**PRE-REQUISITES:** Basic 12 Lead ECG Interpretation skills  
**INSTRUCTOR:** Wayne Ruppert  
**COURSE MATERIAL:** PowerPoint Handout  
**STATUS:** Currently Available

“ECG Case Studies from the Electrophysiology Lab”

In the electrophysiology (EP) lab, catheters with up to 34 sensing electrodes are placed within the cardiac chambers and coronary sinus, for precise mapping of cardiac dysrhythmias, without error. The case studies reviewed in this course are of dysrythmias which are often difficult – if not impossible – to accurately diagnose using the “surface” 12 lead ECG. Each case study features the patient’s 12 lead ECGs, and the electrograms (“internal” ECG) recorded in the Electrophysiology Lab. In this course, we provide case studies of:

- Wide Complex Tachycardias  
  - Ventricular Tachycardia (VT)  
  - Supraventricular Tachycardia (SVT) with Bundle Branch Block Aberrancy  
  - Supraventricular “Bypass Tract” Tachycardias (WPW with antedromic conduction)
- Narrow Complex Tachycardias
- Heart Blocks and Bradycardias
- Wolff-Parkinson-White Syndrome (WPW)
- Atrial Fibrillation
- Brugada Syndrome
- Long Q-T Syndrome

**TIME:** 4 hours  
**PRE-REQUISITES:** Basic 12 Lead ECG Interpretation skills  
**INSTRUCTOR:** Wayne Ruppert  
**COURSE MATERIAL:** PowerPoint Handout  
**AVAILABILITY:** Currently Available

To inquire about our ECG Seminars, contact: editor@TriGenPress.com