



Intermediate 12-Lead ECG & Arrhythmia **Study Guide**

- Normal Shapes of P-QRS-T, U Waves in Each Lead of the 12-Lead ECG
- Zones of the heart including:
 - Anterior
 - Inferior
 - Lateral
 - Anterior-Lateral
 - Septal
 - Inferior-Lateral
 - Inferior-Right Ventricular
 - Inferior-Posterior
- Employ the use of the 12-18 lead electrocardiograms in making the above diagnoses of zones of injury versus ischemia.
- Determine when it is necessary to obtain the right sided chest leads and posterior chest leads, and why.
- Identify for patterns adjusted of myocardial injury warranting further investigation
- Identify eight patterns suggestive of myocardial ischemia more Gene further investigation
- Relate the coronary anatomy to the zones of the heart that are reflected in the 12 -15 and 18 lead electrocardiograms.
- Identify the six most common myocardial mimics of acute myocardial infarction and State how to differentiate between each mimic including:
 - Aortic Dissection
 - Pulmonary Embolus
 - Cardiomyopathy
 - Hyperkalemia
 - Pericarditis
 - Ventricular Hypertrophy

- Identify the gold standard leads for monitoring cardiac patients with arrhythmias and or ischemia versus injury in non-acute, acute, and interventional cardiovascular services.
- Differentiate between the 4 most common causes of wide-QRS patterns and state the clinical significance of each.
- Identified bi-fascicular block patterns and state their clinical significance.
- Calculate the electrical axis of the QRS, utilizing the “Handy” and “Exact” degree methods of axis determination, and state the clinical indications of varying abnormal axes and how axis determination can often be of assistance in determining the origin of arrhythmias.
- Identify hypokalemia and hyperkalemia in the 12 lead ECG and state their likely clinical picture.
- Identify sick sinus syndrome in the ECG and state the clinical significance.
- Identify advanced degrees of AV block.