

# Medical Research

## Electrocardiogram Interpretation Guidelines

These criteria for ECG interpretation are recommended to be the standard used by physicians to decide whether or not to include (or exclude) an individual from a study. These guidelines focus on subject/patient safety and are standard, unless modified by a given protocol or client. The Study Physician has the final say as to the application of these guidelines, which may vary depending on the agent being tested.

### **Normal Variant or Within Normal Limits (WNL = Normal)**

- Sinus dysrhythmia, with or w/o a wandering atrial pacemaker, 18-45 yr.
- Borderline first degree A-V block - PR = .20+
- Premature Ventricular Contractions (PVC) - up to 5/minute
- Premature Atrial Contractions (PAC) - up to 5/minute
- Sinus Bradycardia >45 i.e. 45 to 60 bpm
- Incomplete Right Bundle Branch Block (IRBBB)
- Early transition – RsR in V1 etc.
- Voltage criteria for LVH
- Short P-R interval (without a delta wave)
- Right axis deviation in young adults

### **Abnormal but usually Not Clinically Significant (Abn/NCS) - usually OK**

- First degree heart block (PR > .22 but <.24)
- Right Bundle Branch Block (RBBB) with or without a LAHB
- Sinus Bradycardia less than 45 bpm if asymptomatic
- Borderline axis deviations i.e. just >+90° or >-30°
- Some T wave flattening - ? is it due to hyperventilation
- Tall T waves if voltage is high generally

### **Abnormal - to be reviewed individually (Abn/CS)- usually excluded**

- Left Bundle Branch Block (LBBB) unless proven congenital
- Peaked T waves in subjects > 60 years of age
- Sinus dysrhythmia in subjects > 50 years old
- Second degree A-V block Type I (Wenkebach) < 30 years of age
- Wolf-Parkinson-White (WPW) pre-excitation syndrome
- LBBB with 1<sup>st</sup> degree A-V block
- Type I or II 2<sup>nd</sup> degree A-V block
- Complete (3<sup>rd</sup> degree) heart block
- Left Ventricular Hypertrophy (LVH), with or without strain
- Ventricular Tachycardia (V Tach) i.e. > 3 PVC in succession
- Atrial Flutter (AF) or Atrial Fibrillation (AF)
- ECG evidence of current or old ischemia or infarction