



Canadian Society of Cardiology Technologists

Guidelines for CSCT Certification Exam Purposes

1. Normal ECG Measurements : PR 0.12 seconds; QRS 0.08-0.12 seconds;
2. Corrected QT Interval (QTc) Bazett's Formula – $QT \text{ Interval} / \sqrt{(RR \text{ Interval})}$ 450 msec upper limit of normal.
3. ECG Criteria for Left Ventricular Hypertrophy (LVH) – Romhilt – Estes Criteria

| ECG Criteria | Points |
|---|----------|
| Voltage Criteria (any of): | 3 points |
| a. R or S in limb leads ≥ 20 mm | |
| b. S in V1 or V2 ≥ 30 mm | |
| c. R in V5 or V6 ≥ 30 mm | |
| ST-T Abnormalities: | 3 points |
| Without digitalis | 1 point |
| With digitalis | |
| Left Atrial Enlargement in V1 | 3 points |
| Left axis deviation (LAD) | 2 points |
| QRS duration 0.09 sec | 1 point |
| Delayed intrinsicoid deflection in V5 or V6 (>0.05 sec)* | 1 point |

5 points or greater = definite

4 points = probable

*Intrinsicoid deflection is the duration from the beginning of the R wave to the peak of the R wave

4. Normal Axis - -30 to +90 degrees.
5. Normal Ejection Fraction - 55% - 70%.
6. Exercise Tolerance Testing - ST segment measurement 80 msec from the J point
7. Exercise Tolerance Testing Blood Pressure Drop - 10 mm/Hg during the test from pre-test value is a absolute indication to terminate the test. In clinical practice physicians and testing facilities may not use this as an absolute indicator to terminate the test unless there are other factors.
8. Pre-excitation Syndrome - Wolff-Parkinson-White Syndrome is one of the types of pre-excitation there are others.