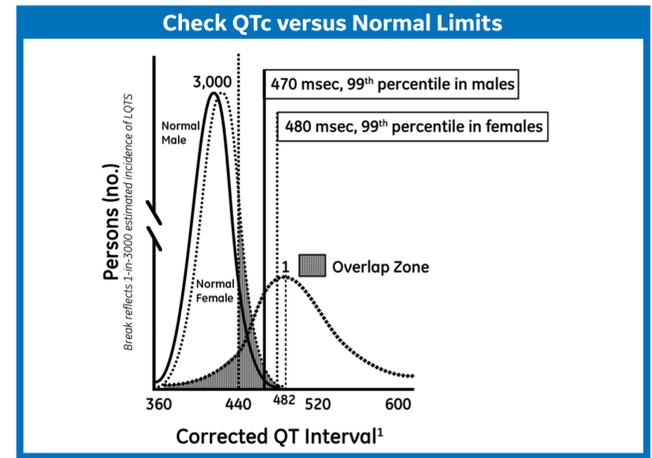
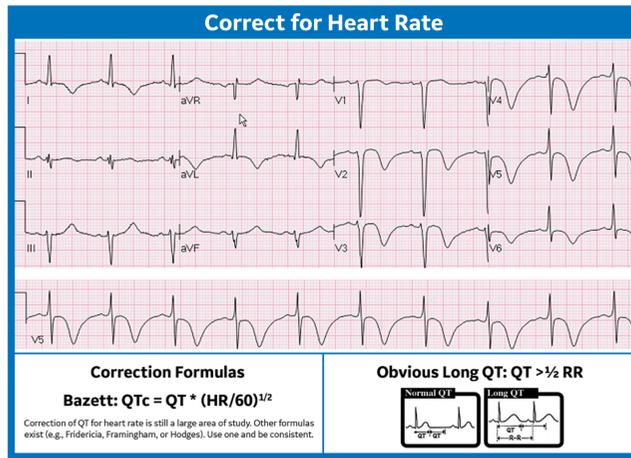
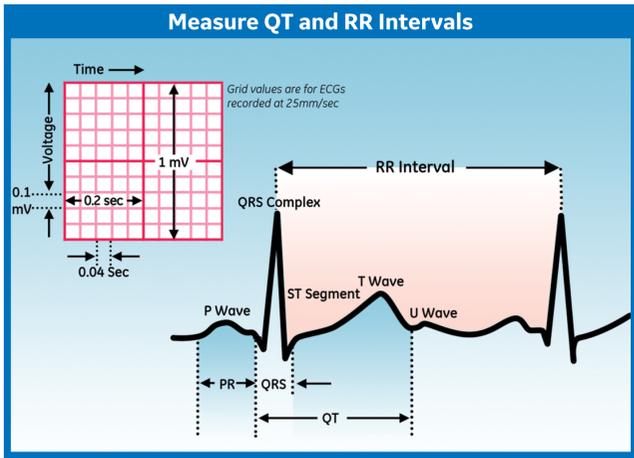


# Recognition of Drug-Induced Prolonged QT



### Risk Factors

#### Genetics

**ECG from LQT2 Patient**

"Current evidence suggests that 5 to 10 percent of persons in whom torsade de pointes develops on exposure to QT-interval-prolonging drugs harbor mutations associated with the long-QT syndrome."<sup>1</sup>

#### Electrolytes

**Example of Hypokalemia**

Imbalance in K, Ca, or Mg can lead to higher risk. In this example, lead II exhibits TP fusion while in V4-V6 these waves are clearly separated.

#### Brady-Arrhythmia

Atrial fibrillation with low heart rate and prolonged QT. Long followed by short RR leads to Torsade de Pointes.<sup>2</sup>

#### Poor Liver or Heart Function

**Liver**

Poor function can lead to toxic levels of prescribed drug.

**Heart**

Cardiac ischemia can prolong QT.

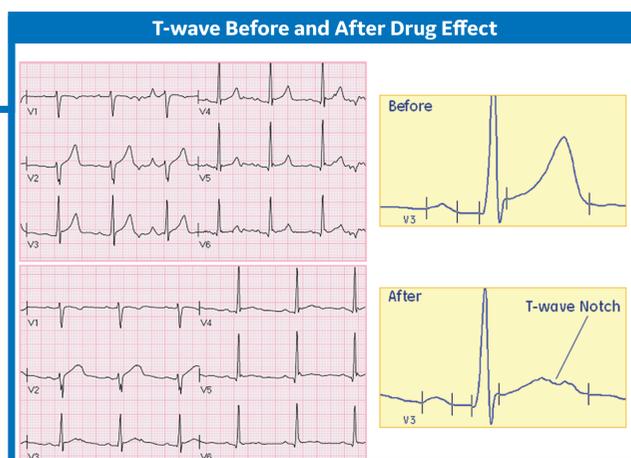
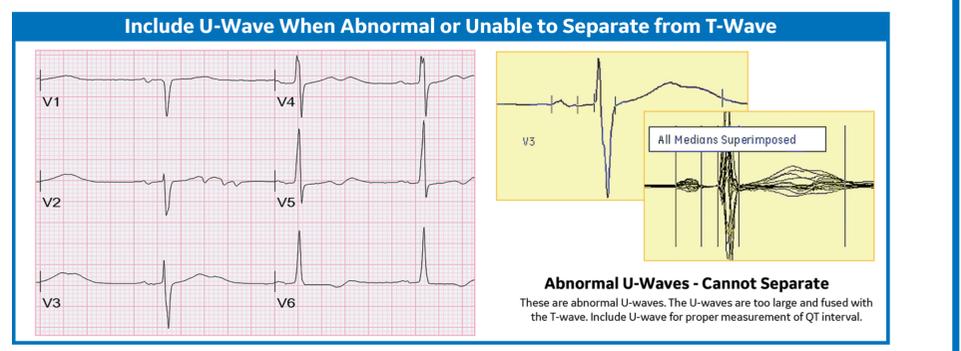
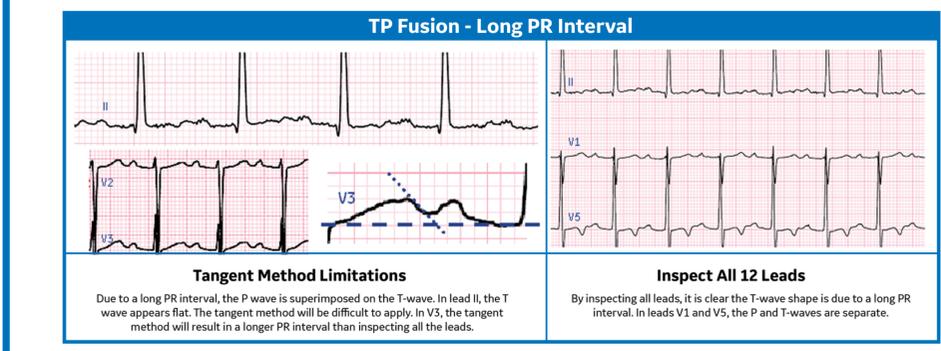
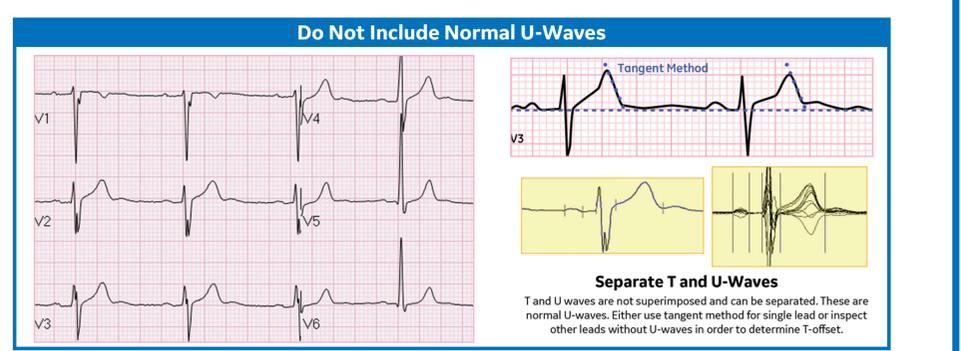
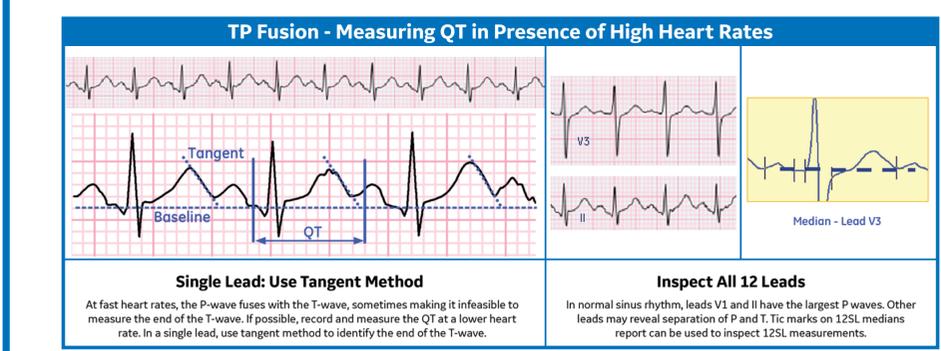
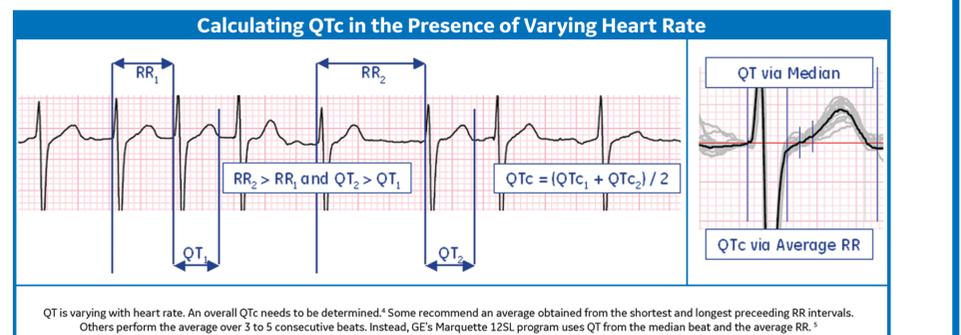
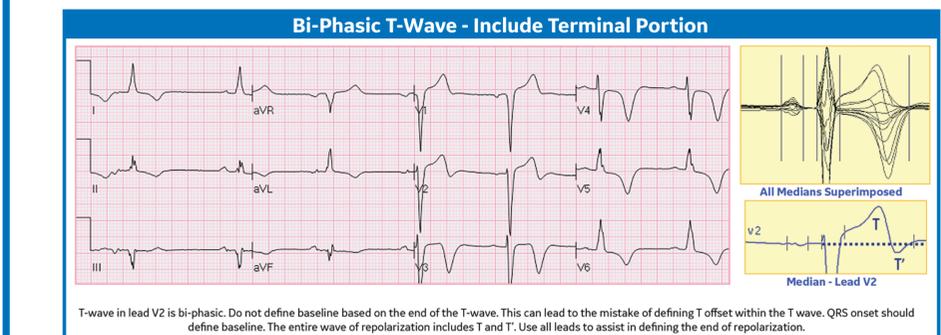
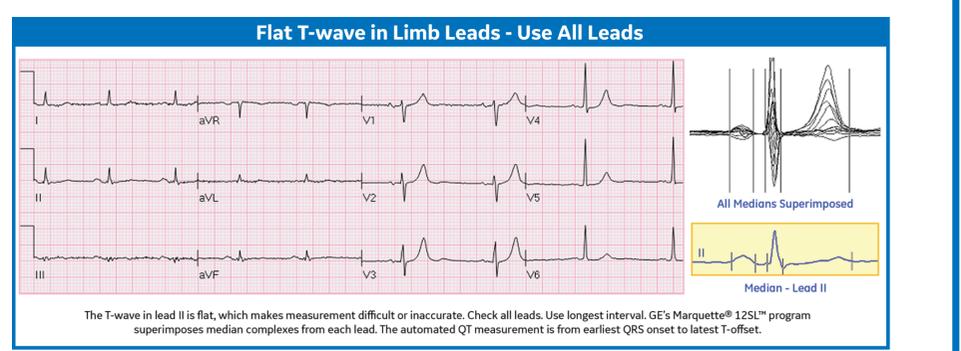
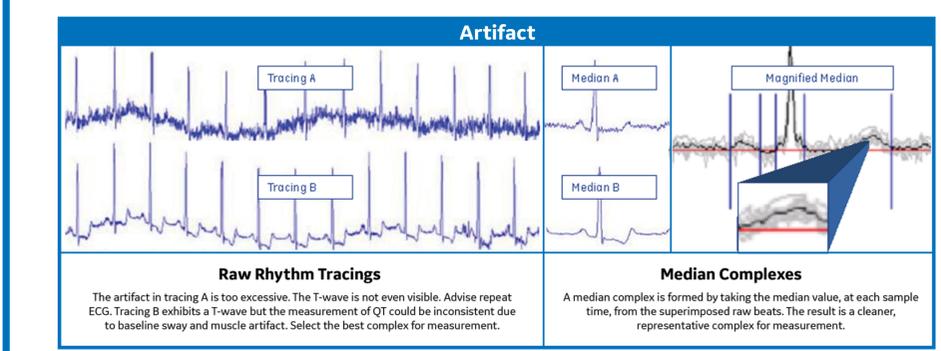
Low ejection fraction can increase risk of arrhythmic death due to prolonged QT.

#### Drugs

- Anti-depressants
- Anti-psychotics
- Anti-biotics
- Anti-arrhythmics
- Etc.

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## Tools and Strategies for Measuring Difficult ECGs



#### References

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- 5 GE Healthcare, Marquette® 12SL™ ECG Analysis Program Physician's Guide, 416791-004.