INDICATION

Calculates the QT interval at extremes of heart rate

ADDITIONAL INFORMATION

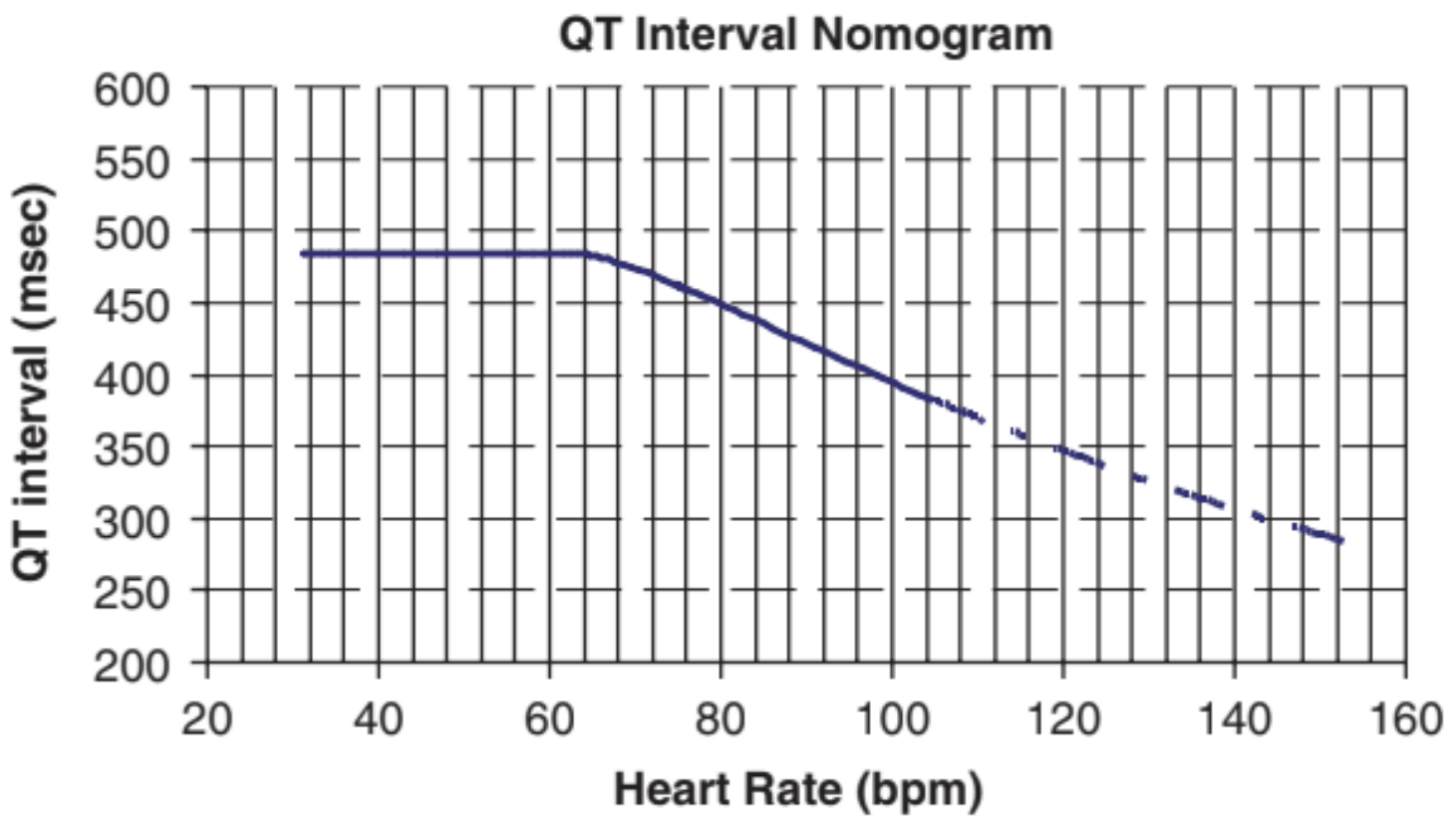
Causes of abnormal prolonged QT interval

Electrolyte abnormalities	Hypocalcemia
	Hypokalemia
	Hypomagnesemia
Primary cardiac causes	Myocardial ischemia.
	Post MI
	Ischaemic heart disease
	Cardiomyopathy.
	Severe bradycardia / high-grade AV block.
	Congenital long QT syndrome
Central causes	Raised intracranial pressure.
	Autonomic dysfunction.
	Severe hypothyroidism.
	Hypothermia.
Medications	Anti-arrhythmics.
	Psychotropic drugs.
	Other medications

INTERPRETATION

Normal QTc is ≤440 msec

QTc of >500 is associated with increased risk of Torsade de points



CALCULATION

RR interval = 60 / HR

QT interval = number of small boxes between Q-T:

- 1 small box = 40msec / paper speed 25mm/sec
- 1 small box = 20msec / paper speed 50mm/sec

Bazett Formula:
QTc = QT interval / √ (RR interval)

Fridericia Formula:
QTc = QT interval / (RR interval)1/3

Framingham Formula:
QTc = QT interval + 154 x (1 - RR interval)

Hodges Formula:
QTc = QT interval + 1.75 x ((60 / RR interval) − 60)

Rautaharju Formula:
QTc = QT interval x (120 + HR) / 180