

Long QT

A 34 year old man attends your department after an RTC, complaining of chest pain. An ECG is taken. The report of the ECG is that there is a prolonged QT interval.

How is the QT interval defined? How does it change with rate? (1 mark)

Start of QRS complex to end of T wave. Decreases with rate.

What is QTc, how is it calculated and why. What is the normal QTc? (1 mark)

*QT over square root of RR interval. Corrects for change in QT with rate.
Normal is < 0.44*

Give 4 classes of medication that prolong QT interval (4 marks)

Class 1 and 3 antiarrhythmics

Macrolides

Quinolones

Phenothiazines

TCA's

SSRI's

Methadone

Give three non inherited conditions that prolong QT interval (3 marks)

Congestive heart failure

Myocardial infarction

Hypocalcaemia

Hypomagnesaemia

Rheumatic Fever

Myocarditis

The patient is not on any medications and has no apparent reason to have a prolonged QT interval. What difference could it make to the patient? (1 mark)

Inc risk of torsades de pointes and sudden death. Avoid drugs which inc QT