

MACROLIDE WARNINGS V2.0

Background

The use of macrolides increases the risk of adverse cardiovascular events such as dysrhythmia, myocardial infarction and sudden cardiac death. Treatment can result in prolonged cardiac repolarisation and QT interval, resulting in cardiac dysrhythmia and torsade de pointes. There are alternative treatment options available for most clinical conditions including penicillin allergy.

Macrolides remain an important treatment option for carefully selected patients where the benefit is thought to outweigh the risk. Patients should be informed of the risks associated with macrolides prior to commencing treatment.

Warnings

Pre-existing cardiac illness

Macrolides should be avoided in patients with known QT interval prolongation or a history of ventricular dysrhythmia.

Caution should be exercised in patients with:

- Coronary artery disease
- Severe cardiac insufficiency
- Conduction disturbances
- Clinically relevant bradycardia

Concomitant medications

As macrolides can induce QT interval prolongation, they should be used with caution in patients receiving medicines known to prolong QT interval (e.g. Class IA and III anti-arrhythmics e.g. amiodarone, tricyclic antidepressants, antipsychotics). See the macrolide drug interactions table for more information. For a composite list of drugs that can prolong QT interval please consult the relevant SmPC [on the HPRA website](#), the BNF or www.crediblemeds.org for further information. Consideration should be given to over-the-counter medication a patient may be taking which can prolong QT interval e.g. domperidone.

Electrolyte disturbances

Macrolide antibiotics should be avoided in patients with electrolyte disturbances (i.e. hypomagnesaemia and hypokalaemia) due to the increased risk of prolongation of the QT interval.

Age

➤ Elderly

Macrolides should be used with caution in elderly patients as they may be more susceptible to drug-associated effects on the QT interval.

➤ Paediatrics

A European review of safety data has suggested an overall two- to three-fold increase in the risk of infantile hypertrophic pyloric stenosis after exposure to erythromycin in infants less than 6 months of age. The risk is most pronounced in those exposed during the first 14 days of life. Prescribers are advised to assess the benefit-risk balance of erythromycin therapy in infants. If erythromycin is prescribed, parents and carers should be advised to seek medical attention if vomiting or irritability with feeding occurs in infants during treatment.

Treatment with a macrolide in the above situations should only be initiated in the absence of alternative treatment options and after careful benefit-risk assessment.

HSE Antimicrobial Resistance and Infection Control Programme

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