

衛生署藥物辦公室
藥物註冊及進出口管制部

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(IN REPLY PLEASE QUOTE THIS FILE REF.)

Dear Healthcare Professionals,

Quinine: reminder of dose-dependent QT-prolonging effects; updated medicine interactions

Your attention is drawn to the Medicines and Healthcare products Regulatory Agency (MHRA)'s announcement regarding Quinine has dose-dependent QT-interval-prolonging effects and should be used with caution in patients with risk factors for QT prolongation or in those with atrioventricular block.

Quinine is well known to have effects on the QT interval. A 2017 routine EU review recommended that warnings for dose-dependent QT-prolonging effects should be present in the product information for all quinine-containing medicines.

Use caution if prescribing quinine medicines in patients with conditions that predispose to QT prolongation, such as pre-existing cardiac disease or electrolyte disturbances, or in patients taking other medicines that prolong the QT interval (see table from Stockley's Drug Interactions for examples). Use caution when prescribing quinine to patients with atrioventricular block since quinine could aggravate conduction deficits.

Quinine is metabolised via hepatic oxidative cytochrome P450 pathways, predominantly by CYP3A4. The 2017 review identified a pharmacokinetic study reporting that serum levels of phenobarbital or carbamazepine could become raised when these anticonvulsant drugs are used concomitantly with quinine. Although data appear to be limited to this study, it is advisable to monitor for evidence of toxicity if quinine is used concomitantly.

MHRA advises healthcare professionals on the following:

- be aware of dose-dependent effects on the QT interval and use caution if prescribing quinine in patients:
 - with conditions that predispose to QT prolongation such as pre-existing cardiac disease or electrolyte disturbance
 - taking other medicines that could prolong the QT interval
 - with atrioventricular block
- monitor patients closely if administration of quinine with phenobarbital or carbamazepine is necessary; serum levels of these anticonvulsant medicines could become raised and cause anticonvulsant toxicity
- consult the Summary of Product Characteristics for a full list of interacting medicines and potential adverse reactions
- report suspected adverse drug reactions with quinine on a Yellow Card

Please refer to the MHRA's website for details:

<https://www.gov.uk/drug-safety-update/quinine-reminder-of-dose-dependent-qt-prolonging-effects-updated-medicine-interactions>

In Hong Kong, there are 2 registered pharmaceutical products containing quinine. Both of them are prescription-only medicines. So far, the Department of Health (DH) has not received any case of adverse drug reaction related to quinine. In light of the above MHRA's announcement, the matter will be discussed by the Registration Committee of the Pharmacy and Poisons Board. Healthcare professionals are advised to balance the risk of possible adverse effects against the benefit of treatment.

Please report any adverse events caused by drugs to the Pharmacovigilance Unit of the DH (tel. no.: 2319 2920, fax: 2319 6319 or email: adr@dh.gov.hk). For details, please refer to the website at Drug Office under "ADR Reporting": <http://www.drugoffice.gov.hk/adr.html>. You may wish to visit the Drug Office's website for subscription and browsing of "Drug News" which is a monthly digest of drug safety news and information issued by Drug Office.

Yours faithfully,



(Joseph LEE)

for Assistant Director (Drug)