

DMARDs in Adult Rheumatology – Information for GPs

HYDROXYCHLOROQUINE

April 2022 Update

Following the publication of the MHRA Drug Safety Update (Feb 2022):- **Hydroxychloroquine, chloroquine: - increased risk of cardiovascular events when used with macrolide antibiotics; reminder of psychiatric reactions** , a link to the full DSU has been added [click here for full details \(see page 5-8\)](#)

NB: Hydroxychloroquine is often co-prescribed along with methotrexate. In such circumstances, clinicians should also refer to the methotrexate information sheet for full details of blood test monitoring etc.

Clinicians should also refer to the overarching DMARD shared care guideline document for details of the individual responsibilities for each group e.g. GP / Specialist Rheumatology team under this shared care agreement.

Indication	<ul style="list-style-type: none"> • Hydroxychloroquine is recommended by NICE and National Societies for the treatment of numerous rheumatological conditions including Rheumatoid arthritis , Connective tissue disorders. • Clinicians should refer to the Summary of product characteristics (SmPC) for specific licensing information. • Use outside of the licensed indications is regarded as “off label” use.
Drug dose	<ul style="list-style-type: none"> • Typically, the Specialist Rheumatology team will initiate hydroxychloroquine 200mg daily and may increase the dose to 400mg daily depending on response. <ul style="list-style-type: none"> ○ Typical maintenance dose is 200-400mg daily • Daily dose to be based on <u>ideal body weight</u> ; maximum dose recommended by The Royal College of Ophthalmology (RCOphth) is 5mg /kg per day. (NB: Summary of Product Characteristics (SmPC): maximum licensed dose is 6.5mg/kg) <p>VARIATION TO HYDROXYCHLOROQUINE DOSING Use with caution in renal and hepatic impairment</p>

<p>Contra-indications / Cautions/ Dose modifications in Special Populations</p>	<ul style="list-style-type: none"> ○ Hydroxychloroquine is contra –indicated in patients with pre-existing maculopathy of the eye ○ Clinicians should refer to the Summary of Product Characteristics (SmPC) and current electronic BNF for full details www.medicines.org.uk/emc www.bnf.org/products/bnf-online
<p>Side effects</p>	<ul style="list-style-type: none"> ○ Clinicians should refer to the Summary of Product Characteristics (SmPC) and current electronic BNF for full details www.medicines.org.uk/emc www.bnf.org/products/bnf-online <p><u>Examples of side effects:</u></p> <ul style="list-style-type: none"> ○ skin rashes ○ nausea ○ indigestion ○ diarrhoea ○ headaches ○ bleaching of the hair or mild hair loss ○ tinnitus ○ blurred vision. ○ Very rarely hydroxychloroquine may damage the retina ○ Psychiatric side effects – See MHRA Drug Update Alert, Feb 2022 (pg 5-8) <p>Hydroxychloroquine is very toxic in overdose – Urgent medical advice is required</p>
<p>Drug Interactions</p>	<ul style="list-style-type: none"> ● Hydroxychloroquine can interact with a variety of drugs, some of which can be significant. <p>Examples include:</p> <ul style="list-style-type: none"> ○ Macrolide antibiotics - MHRA Drug Safety update, Feb 2022 (pg 5-8) ○ Amiodarone ○ Moxifloxacin ○ Antimalarials ○ Droperidol ○ Digoxin ○ Ciclosporin <ul style="list-style-type: none"> ● This list is not exhaustive. Clinicians should refer to the Summary of Product Characteristics (SmPC) and the electronic BNF for a full list of potential drug interactions before starting any new medication or when stopping any existing medication. www.medicines.org.uk/emc www.bnf.org/products/bnf-online
<p>Pre-treatment Blood Test monitoring <i>(To be done by Specialist Rheumatology team)</i></p>	<ul style="list-style-type: none"> ● FBC, U+Es, LFT

<p>Blood Test Monitoring requirements</p> <p>(Ref: Based on British Society of Rheumatology Guidelines , 2017 and current clinical practise)</p>	<ul style="list-style-type: none"> • Routine laboratory blood test monitoring is not generally required unless patient is also prescribed another DMARD which does require regular blood test monitoring ; it may also be requested periodically by the Specialist Rheumatology team to aid clinical assessment or prior to next hospital appointment. • Ensure a prompt two-way communication of blood test results between GP and Specialist team is available. (Paper copies should be sent between parties if electronic access via ICE is not available.)
<p>Ophthalmology Monitoring requirements:</p> <p>Under this shared care guideline, it is the responsibility of the GP as the prescribing clinician (as per GMC guidelines) to refer patients eligible for monitoring to the local ophthalmology monitoring service at the appropriate time point (as per RCOphth guidelines)</p>	<p>Due to the risk of hydroxychloroquine – induced retinopathy, all patients receiving hydroxychloroquine therapy should be monitored as per the Royal College of Ophthalmologists (RCOphth) guideline (Dec 2020). (NB: Baseline testing for new patients started on hydroxychloroquine or chloroquine is no longer recommended).</p> <p>Initial Eye Monitoring Referral and Subsequent Monitoring :-</p> <p>Timescales for initial referral and subsequent monitoring will depend on:</p> <ul style="list-style-type: none"> • Duration and dosage of hydroxychloroquine therapy • Presence of additional risk factors as identified by RCOphth):- <ul style="list-style-type: none"> ○ Concomitant tamoxifen use ○ Impaired renal function (eGFR <60ml/min/1.73m²) ○ Dose of hydroxychloroquine >5mg / kg / day ○ Chloroquine use • Patients with <u>no</u> additional risk factors:- Initial monitoring referral is required <u>after five years of therapy</u> and annual monitoring is required thereafter. • Patients with <u>additional</u> risk factors:- Initial monitoring referral is required <u>after one year of therapy</u> and annual monitoring is required thereafter. <p>Under this shared care guideline (for Rheumatoid Conditions):</p> <p>Specialist Responsibilities</p> <ul style="list-style-type: none"> • Assess ALL patients newly started on hydroxychloroquine for presence of any additional risk factors, AND • Advise the GP accordingly on when a referral should be made to the local Ophthalmology hydroxychloroquine monitoring service. • Advise patient to inform their GP / optometrist if they notice any blurring of vision / any other changes to their vision or visual acuity at any time.

	<p>GP Responsibilities</p> <ul style="list-style-type: none"> • For new patients: Add an alert to the patient's medical record of the need to refer to the Ophthalmology hydroxychloroquine monitoring service at the relevant time point (e.g. after 1 year or 5 years depending if additional risk factors present) as recommended by Specialist. • For established patients: Arrange a referral to the local Ophthalmology hydroxychloroquine monitoring service in accordance with the timescales outlined in the Initial Eye Monitoring Referral and Subsequent Monitoring section above (as per the RCOphth guidelines). • Advise patient to inform their GP / optometrist if they notice any blurring of vision / any other changes to their vision / or visual acuity. Advice should be sought from an Ophthalmologist in such cases. <p>N.B. Clinicians should also read the ophthalmology information relating to hydroxychloroquine as stated in the electronic BNF and SmPC.</p>
Time to action:	Approximately 12 weeks
Alcohol	<p>There is no specific interaction between Hydroxychloroquine and alcohol, however, for general health reasons the recommended limits of alcohol are < 14 units /week.</p> <p>NB: If the patient is also taking methotrexate, they should be advised to keep <u>well within</u> the recommended limits as methotrexate can interact with alcohol and affect their liver. In some circumstances the prescribing clinician may advise lower limits.</p>
Elective surgery	<ul style="list-style-type: none"> • Contact the Specialist Rheumatology team for advice. Generally, hydroxychloroquine should not be stopped in the peri-operative period. Any queries or infection related surgery, should be discussed with the Specialist Rheumatology team.
Contraception Advice (males and females)	<ul style="list-style-type: none"> • The Specialist Rheumatology team should discuss family planning with both female and male patients before initiating treatment with hydroxychloroquine. • GPs should refer any female or male patient, who are wishing to start a family to the Specialist Rheumatology team.
Pregnancy and Breast feeding	<ul style="list-style-type: none"> • Female patients who become pregnant should be referred to the Specialist Rheumatology team and, in the meantime, patients should continue treatment.
Drug Formulations	<p>Oral</p> <p>Available as 200mg and 300mg tablets</p>

Practical Points for GPs to note:	<ul style="list-style-type: none"> • To avoid excessive dosage in obese patients , the dose of hydroxychloroquine should be calculated on ideal body weight. • Advise patient to report any visual disturbances • Advise any patients who wish to consider starting a family to contact their GP and Specialist Rheumatology team as soon as possible for advice. • Advise any patient who becomes pregnant to contact their GP and Specialist Rheumatology team as soon as possible for advice. • Provide a maximum of 4 weeks supply at a time
Patient Information Leaflets	<ul style="list-style-type: none"> • Patients should be advised to read the Versus Arthritis UK patient information leaflet, the package insert and the Macular Society patient information leaflet <p>Link to the patient information leaflets:</p> <p>Versus Arthritis information booklet - Hydroxychloroquine information booklet</p> <p>Hydroxychloroquine eye screening - Macular Society Patient Information leaflet</p>

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References:

- SmPC (Summary of product characteristics)
www.electronicmedicinescompendium.com
- BSR/BHPR Non-biologic DMARD guidelines (2017) – available at
<http://www.rheumatology.org.uk/resources/guidelines/default.aspx>
- BNF (electronic)
www.bnf.org/products/bnf-online
- Royal college of ophthalmology guidelines hydroxychloroquine and chloroquine retinopathy monitoring guideline (Dec 2020)
<https://www.rcophth.ac.uk/2020/12/hydroxychloroquine-and-chloroquine-retinopathy-recommendations-on-monitoring/>