

Shared care guidelines for hydroxychloroquine for rheumatoid arthritis and other rheumatological conditions in adults.

General Principles

This agreement outlines suggested ways in which the responsibilities for managing the prescribing of the drug treatment and clinical indication listed in the table below can be shared between the specialist and General Practitioner (GP). The Specialist(s) is responsible for initiating treatment, prescribing the drug and monitoring of therapy until such a time as when the patient is deemed to be stable. If GPs are not confident to undertake these roles, then they are under no obligation to do so. In such an event, the total clinical responsibility for the patient for the diagnosed condition remains with the Specialist.

If a Specialist asks the GP to prescribe this drug, the GP should reply to this request as soon as practicable.

Sharing of care assumes communication between the Specialist, the GP and the patient. The intention to undertake shared care should be explained to the patient by the doctor initiating treatment. It is important that patients are consulted about treatment and are in agreement with it. Patients on hydroxychloroquine are under regular follow-up, which provides an opportunity to discuss drug therapy.

The doctor who prescribes the medication legally assumes clinical responsibility for the drug and the consequences of its use.

Indications

Hydroxychloroquine is an antimalarial used to treat rheumatoid arthritis of moderate inflammatory activity. It is effective for mild systemic and discoid lupus erythematosus, particularly involving cutaneous and joint manifestations and dermatological conditions caused or aggravated by sunlight. Hydroxychloroquine should not be used for psoriatic arthritis.

Presentation/Dose/Administration

Oral:

Hydroxychloroquine sulphate is administered orally and is available as 200mg tablets.

The minimum effective dose should be employed. This dose should not exceed 6.5mg/kg /day (calculated from ideal body weight and not actual body weight), and will be either 200mg or 400mg per day.

In patients able to receive 400mg daily, the initial dose is 400mg daily in divided doses. The dose can be reduced to 200mg when no further improvement is evident. The maintenance dose should be increased to 400mg daily if the response lessens.

Hydroxychloroquine tablets should be taken with a meal or glass of milk; indigestion remedies should not be taken at the same time of day as hydroxychloroquine.

Responsibility for monitoring hydroxychloroquine			
MONITORING	RESPONSIBILITY	CONDITIONS	TESTS
Pre-treatment	Hospital team	All	<p>FBC, LFTs, U&Es</p> <p>Ophthalmologic examination. Record near visual acuity of each eye (with glasses where appropriate) using a standard reading chart</p> <p>If visual impairment detected at baseline refer to ophthalmologist</p> <p>Results to be known before drug is commenced</p>
Initiation to stabilisation	Hospital team	All	<p>FBC, LFTs, and U&Es every three to six months as risk of bone marrow suppression is low</p>
Ongoing	GP	All	<p>FBC, LFTs, U&Es and weight every six months.</p> <p>The Hospital Team and GP should both be responsible for ensuring patient has a regular (at least annual) Ophthalmologic examination. The Royal College of Ophthalmologists (RCO) recommend an annual review either by an optometrist or enquiring about visual symptoms, rechecking visual acuity and assessing for blurred vision using the reading chart. Stop if there are any abnormalities and refer to Specialist team.</p> <p>Ask patient about visual symptoms at every review appointment (including hospital clinic appointments).</p> <p>Patients should be advised to stop taking the drug immediately if any visual disturbance or change of colour vision occurs, and report to their GP or Hospital Specialist.</p>

Criteria for managing events & symptoms occurring during hydroxychloroquine therapy in primary care		
LABORATORY EVENTS	VALUES	ACTION
Elevation in liver enzymes (AST, ALT) not ALK PHOS	>2x Normal	Seek specialist advice re: possible dose reduction and monitoring of LFTs closely.
WBC	< 3.0 x 10 ⁹ /L	Seek haematological and/or Rheumatology/Dermatological opinion. Stop treatment , repeat FBC in 1 or 2 weeks. If signs of infection, patient will require broad spectrum antibiotics.
Neutrophils	< 1.5 x 10 ⁹ /L	
Platelets	< 150 x 10 ⁹ /L	Stop , repeat FBC in 1 or 2 weeks. Seek haematological and/or Rheumatology/ Dermatology opinion.
Sequential falls in WBC or neutrophils	> 10% on 3 occasions	Stop - seek haematological and/or Rheumatology/Dermatology opinion.
Sequential falls in Platelets	> 10% on 3 occasions	Stop – unless falls are from high level e.g. 600, 500, 400 x 10 ⁹ /L, which are a response to treatment seek haematological and/or Rheumatology/ Dermatology opinion.

SYMPTOMS	MANAGEMENT
Skin rash, pruritus, pigmentation changes in skin, bleaching of hair and alopecia.	Stop drug and discuss with Rheumatologist/Dermatologist
Visual changes, retinal damage	Stop and seek advice; In its early form it appears reversible on discontinuation of hydroxychloroquine.
Abnormal bruising or bleeding or sore throat.	Stop , repeat FBC immediately.
Any other unexplainable symptoms	Stop drug and discuss with Specialist.

Key Adverse drug reactions (ADRs)
Note: extremely toxic in overdose – immediate advice from poisons centre is essential
<ul style="list-style-type: none"> • Gastrointestinal disturbances: nausea, vomiting, anorexia, abdominal pain and diarrhoea. • Headache. • Skin reactions: rashes, pruritus, skin and mucosal pigmentation (see above). • ECG changes. • Ocular toxicity: <ul style="list-style-type: none"> ▪ Visual changes/retinal damage (with changes in pigmentation). This may be permanent; the occurrence of retinopathy is rare if the recommended daily dose is not exceeded. The administration of doses in excess of the recommended maximum is likely to increase the risk of retinopathy, and accelerate its onset. ▪ Corneal deposits; these occur early and may be transient. They are reversible on stopping treatment. • Ototoxicity: Auditory and vestibular toxicity. Congenital deafness, therefore hydroxychloroquine should not be used in pregnancy.

- Myopathy may be reversible after drug discontinuation, but recovery may take many months.
- Haematological disorders such as anaemia, aplastic anaemia, agranulocytosis and rarely bone marrow depression.

NB: Patients should be advised to report any mouth ulcers, sore throat, fever, epistaxis, unexpected bruising or bleeding and any unexpected illness or infection and should be seen URGENTLY for a full blood count, liver function tests, urea and electrolytes.

Contraindications & precautions

Contraindications:

- Retinal or visual field changes from prior hydroxychloroquine therapy or pre-existing maculopathy of the eye.
- Known hypersensitivity to 4-aminoquinoline compounds (e.g. chloroquine).
- Pregnancy. Avoid-manufacturer does not recommend as hydroxychloroquine crosses the placenta. Specialist prescribing only.
- Breast feeding. Avoid -hydroxychloroquine is excreted in breast milk and infants are extremely sensitive to the toxic effects of 4-aminoquinolines.

Precautions:

- Hepatic impairment, liver disease, alcoholism or concurrent administration with known hepatotoxic drugs.
- G6PD deficiency.
- Neurological disorders especially those with history of epilepsy.
- Severe gastrointestinal disorders.
- Elderly patients.
- Renal impairment or metabolic acidosis.
- Psoriasis.
- Myasthenia gravis.
- Porphyria cutanea tarda.
- Haematological disorders.
- Sensitivity to quinine.

Drug interactions

- As hydroxychloroquine may enhance the effects of hypoglycaemic treatment, a decrease in dose of insulin or antidiabetic drugs may be required.
- Hydroxychloroquine has been reported to increase plasma digoxin levels: serum digoxin levels should be closely monitored in patients received combined therapy
- Ciclosporin: concomitant administration may increase plasma concentration of ciclosporin.
- Avoid use with amiodarone, moxifloxacin, quinine and mefloquine.
- Antacids: may reduce absorption of hydroxychloroquine so it is advised that a 4 hour interval be observed between hydroxychloroquine and antacid dosing.
- Cimetidine: metabolism of hydroxychloroquine is inhibited by cimetidine, which may increase concentration of hydroxychloroquine.

See [BNF](#) and manufacturer's SPC [Home - electronic Medicines Compendium \(eMC\)](#) for up-to-date advice

For comprehensive information on adverse effects, cautions, contra-indications and interactions, please refer to the current British National Formulary and Summary of Product Characteristics

Consultant /Specialist responsibilities

- Identify those patients who will benefit from treatment with hydroxychloroquine.
- Undertake pre-treatment monitoring of FBC, U&Es, LFTs, and ophthalmologic examination.
- Ensure that the patient/carer is an informed recipient in therapy, provide necessary education on their treatment regimen and any monitoring or follow up that is required and issue local patient information leaflets.
- Discuss with the patient ALL the key adverse drug reactions, contraindications, precautions and potential drug interactions. Highlighting the signs and symptoms they should look out for and what will be the appropriate course of action for the patient.
- Initiate prescribing of hydroxychloroquine and stabilise patient on a therapeutic/maintenance dose before transferring prescribing responsibility to the GP.
- Send a letter to the GP requesting a formal agreement to share care, and transfer care to GP only after receipt of a completed and signed agreement from the GP.
- Ensure prior dissemination of sufficient information to GP, patient and/or carers.
- Inform the GP that hydroxychloroquine has been commenced, the dose and future plans for dose changes in keeping with the shared care agreement.
- Clinical and laboratory supervision of the patient by blood monitoring and routine clinic follow-up on a regular basis.
- Send a letter/results notification to the GP after each clinic attendance ensuring current dose, most recent blood results and frequency of monitoring are stated.
- Where the GP is not performing the phlebotomy, the blood test form MUST be annotated to request that blood results are also copied to the GP.
- Evaluation of any reported adverse effects by GP or patient/carer.
- Advise GP on review, duration or discontinuation of treatment where necessary. Where urgent action is required following tests, the hospital team will telephone the patient and inform GP.
- Inform GP of patients who do not attend clinic appointments.
- Counsel the patient on contraception and what to do if pregnancy occurs. Document in the notes.
- Provide access to backup advice and support facilities at all times.
- Ensure, where timing is appropriate, that the patient has received a flu vaccine prior to commencing treatment that is likely to cause immunosuppression. Document this in the patient notes and inform the GP it has been given.

GP responsibilities

- To reply to the request for shared care within 2 weeks of receipt of the consultant letter.
- Reinforce the patient's understanding of the nature, effect and potential side effects of the drug before prescribing it as part of the shared care programme, and contact the Specialist for clarification where appropriate.
- Prescribe hydroxychloroquine at the dose recommended by the Hospital Specialist once the patient is stabilised on treatment and side effects have been excluded as far as possible by the hospital. Any decision to alter treatment should usually be taken by the Hospital Specialist.
- Monitor blood results (FBC, LFT U&E), and **ask about visual symptoms** (ophthalmologic examination) at every review appointment in line with recommendations in this document.
- Advise patient to attend optician appointment for an **annual** visual assessment. The optician examination should include testing visual acuity, careful ophthalmoscopy, funduscopy, central visual field testing with a red target, and colour vision.
- Check for possible drug interactions when newly prescribing or stopping concurrent medication.
- Report any adverse events to the Consultant/Specialist, where appropriate.
- Report any adverse events to the CSM, where appropriate.
- Stop hydroxychloroquine if serious adverse drug effect/reaction and contact Specialist team.
- Help in monitoring the progression of disease.

CCG Responsibilities

- To provide feedback to trusts via the South West Essex Medicines Management Committee.
- To support GPs to make the decision whether or not to accept clinical responsibility for prescribing.
- To support trusts in resolving issues that may arise as a result of shared care.

Patient/ Carer responsibilities

- Report any adverse effects to their GP and/or Specialist.
- Ensure they have a clear understanding of their treatment.
- Report any changes in disease symptoms to GP and/or Specialist.
- Alert GP and/or Specialist of any changes of circumstance which could affect management of disease e.g. plans for pregnancy.
- Take/ administer the medication as prescribed.
- Undertake any monitoring as requested by the GP and/or Specialist.

Contact details

Consultant, medical staff and nurse practitioners at the Basildon and Thurrock University Hospitals NHS Foundation Trust (BTUH) are available to give advice and can be contacted either through the main hospital switchboard or direct:

Department / Specialist	Contact Telephone Number
Hospital switchboard – ask for specialist or On-Call Specialist	01268 524900
Rheumatologist out-of-hours	
Rheumatology	
Dermatology	

Document Control	
Version:	Draft v0.12
Shared Care Guidelines are also available electronically via: to insert website link after approval	
Approved by:	South West Essex Medicines Management Committee
Date of issue	November 2016
Next Review Date:	November 2018

HYDROXYCHLOROQUINE PATIENT INFORMATION LEAFLET

This form will be completed by the Hospital Specialist and given to the patient once stabilised and a fax back has been received from the GP accepting the transfer of responsibility to primary care.

You have been prescribed **Hydroxychloroquine 200mg** tablets

for.....

This **treatment** will continue until stopped by your doctor

Your GP has been given all the necessary information regarding your condition and treatment.

The date for your next hospital appointment is

The success and safety of your treatment also depends on you.

- You will have been given information, which tells you about your treatment and condition.
- Avoid excessive alcohol consumption.
- Do not take any over-the-counter medicines, herbal, complementary or alternative medicines and treatments without getting advice from your doctor.
- Avoid contact with chicken pox or shingles.
- Avoid driving and hazardous work until you have learnt how Hydroxychloroquine affects you, as this drug can occasionally cause dizziness.
- Hydroxychloroquine can increase the skin's sensitivity to sunlight and the risk of developing some forms of skin cancer. Use sun block (SPF 50) and wear a hat and light clothing when out in strong sunshine.
- Do **not** use sunlamps or sun beds.
- You will need to have blood tests at least every three months.
- Your GP/ Practice Nurse needs to see you every

If you experience any of the following side-effects, urgently see your GP:

- Mouth ulcer, sore throat, sore mouth.
- Feeling generally unwell.
- Feeling sick, upset stomach, diarrhoea.
- Rashes – new rash or severe itching anywhere on the body.

Stop treatment and get immediate medical advice if you develop:

- An infection with fever and or chills or a severe sore throat.
- Sudden shortness of breath (breathlessness).
- The whites of your eyes or skin become yellow.
- If you develop dark urine colour or pale stool colour.
- Severe itching of the skin.
- New unexplained bleeding or bruising.
- Severe and continuing abdominal pain or diarrhoea or vomiting.
- If you think you are pregnant contact the Specialist team.
- If you have any concerns about your treatment contact your GP or the hospital.

The direct-dial telephone numbers for the department are.....

GP HYDROXYCHLOROQUINE SHARED MONITORING AGREEMENT 1ST LETTER

Name of GP

Address

Drop code of GP.....

Dear Dr

Re: Patient's name.....

Date of birth.....

Hospital number.....

NHS number.....

I have seen this patient and believe that he/she is suitable for treatment with Hydroxychloroquine for:

.....

I have initiated the patient on **Hydroxychloroquine 200 mg tablets**

Take..... tablets (.....mg) once a day.

I will be prescribing and monitoring this patient at our clinic until such a time that the patient is deemed stable, which is likely to be in the region of months.

I would like to seek your agreement to take over the prescribing and monitoring of this patient's treatment after this stabilisation period as per agreed shared care guideline which is enclosed for your information.

Please complete, sign and fax back the form below to stated safe haven fax.

I thank you in anticipation.

Yours sincerely

Dr
(Consultant)

HYDROXYCHLOROQUINE SHARED CARE GP/PRACTICE FAX BACK FORM

Patient name..... Hospital number.....

Dear GP

You will take over monitoring of the patient including responsibility for organising blood tests and other tests required in accordance with the shared care guidance (enclosed). You will be responsible for reviewing underlying disease including complications and efficacy of therapy.

PLEASE COMPLETE, SIGN AND FAX BACK TO CLINIC/HOSPITAL:

I agree to take over the prescribing and monitoring of this medication and disease.

Signed by (GP).....

Name of GP

Address

or

I am not willing to undertake shared care for this patient because.....
.....
.....

Signed by (GP).....

Name of GP

Address

Please return to

Or Faxback to:.....

References:

1. City & Hackney NHS and Homerton University Hospital: Hydroxychloroquine shared care guideline. Approved January 2010.
2. Hydroxychloroquine Shared Care Guideline: York Teaching Hospital NHS Trust. Approved November 2013, review date November 2015.
3. BNF 70.
4. Hydroxychloroquine (Plaquenil®; Sanofi |) Summary of Product Characteristics accessed on Electronic Medicines Compendium (eMC). Last Updated on eMC 10 January 2014. Last accessed November 10, 2016.
5. NICE Clinical Knowledge Summaries: DMARDs (<https://cks.nice.org.uk/dmards>). Last accessed November 17, 2016.