Hydroxychloroquine for rheumatoid arthritis and other rheumatological diseases (Adults)

It is vital for safe and appropriate patient care that there is a clear understanding of where clinical and prescribing responsibility rests between consultants and general practitioners (GPs).
This guideline reinforces the basic premise that:
When clinical and/or prescribing responsibility for a patient is transferred from hospital to GP, the GP should have full confidence to prescribe the necessary medicines. Therefore, it is essential that a transfer of care involving medicines that a GP would not normally be familiar with, should not take place without the "sharing of information with the individual GP and their mutual agreement to the transfer of care."
These are not rigid guidelines. On occasions, consultants and GPs may agree to work outside of this guidance. As always, the doctor who prescribes the medication has the clinical responsibility for the drug and the consequences of its use.

Indications:	**Dosage and administration:**
Hydroxychloroquine is licensed for use in rheumatoid arthritis, systemic & discoid lupus erythematosus	The minimum effective dose should be employed. Typical dose is 200mg or 400mg per day (but not exceeding 6.5mg/kg/day calculated from **ideal body weight** and not actual body weight). Each dose should be taken with a meal or glass of milk Hydroxychloroquine is cumulative in action and will require several weeks to exert its beneficial effects, whereas minor side effects may occur relatively early. Treatment should be discontinued if there is no improvement by 6 months.

Additional Information

- Retinopathy rarely occurs provided the recommended doses are not exceeded
- Patients should be advised to stop taking the drug immediately and seek the advice of their prescribing doctor if any disturbances of vision are noted, including abnormal colour vision.
- Very toxic in overdose – immediate advice from UK National Poisons Information Service essential (0844 892 0111)

Monitoring requirements:

Before treatment:

- Enquire about any visual impairment which is not corrected with spectacle (at baseline and at annual review)
- If visual impairment is suspected, the patient should be advised to consult an optometrist. If any apparent impairment is correctable with refraction, treatment may then commence. Any relevant abnormality detected by the optometrist would be referred to an ophthalmologist
- Full blood count (FBC) including platelets, urea and electrolytes (U&Es), LFTs

During treatment:

- Ophthalmic examinations annually either by an optometrist or by enquiring about visual symptoms, rechecking visual acuity and assessing for blurred vision using the reading chart http://www.bad.org.uk/shared/get-file.ashx?id=774&itemtype=document
- Discuss with ophthalmologist if on treatment of > 5 years.
- ESR monthly (discretionary) for disease monitoring purposes

- Routine monitoring of FBC, U&Es, liver and renal function is not required. However, most patients will be receiving regular monitoring for concomitant DMARD therapy or treatments for SLE

Responsibility for monitoring rests with the GP

Action to be taken if abnormal results/adverse effects:

- Visual changes Consider review by optician
- WBC< 4 x 10^9/l Check neutrophil count
- Neutrophils < 2.0 x 10^9/l Monitor weekly. If it falls below 1.5 x 10^9/l STOP DRUG and contact helpline.
- Platelets < 150 x 10^9/l Monitor weekly. If drop below 100 x 10^9/l contact helpline

Please note that in addition to absolute values for haematological indices, a rapid fall or a consistent downward trend in any value should prompt caution and extra vigilance.

Contraindications:

- Hydroxychloroquine should not be given to women who are breastfeeding
- Known hypersensitivity to 4-aminoquinoline compounds
- Pre-existing maculopathy of the eye
- Live vaccines are contra-indicated in patients with impaired immune response

Drug interactions include (for full list consult appendix 1 of current BNF):

- **Antacids –Avoid**. Concurrent administration. Separate doses by 4 hours
- **Amiodarone –Avoid**. Increased risk of ventricular arrhythmias
- **Cimetidine - Caution**. May cause rise in serum hydroxychloroquine
- **Digoxin – Caution**. May increase of serum digoxin
- **Droperidol - Avoid**. Increased risk of ventricular arrythmias
- **Ciclosporin – Caution**. May increase serum ciclosporin (increased risk of toxicity).
- **Lanthanum - Caution.** May reduce absorption of hydroxychloroquine. Separate doses by at least 2 hours
- **Mefloquine - Avoid**. Increased risk of convulsions
- **Moxifloxacin- Avoid**. Increased risk of ventricular arrythmias
- **Neostigmine. Caution**. May antagonise effect and increase myasthenic symptoms
- **Pyridostigmine - Caution.** May antagonise effect and increase myasthenic symptoms
- **Hypoglycaemic treatments**- a decrease in doses of insulin or antidiabetic drugs may be required

Cautions:

- Pregnancy- manufacturer advises avoid use. British Society of Rheumatology (BSR) advises risks of stopping should be weighed against small possible risk to unborn child.
- Hepatic or renal disease
- Severe gastrointestinal, neurological (especially history of epilepsy) or blood disorders
- Sensitivity to quinine, glucose-6-phosphate dehydrogenase deficiency, porphyria cutanea tarda which can be exacerbated by hydroxychloroquine and psoriasis since it appears to increase the risk of skin reactions.
- Myasthenia gravis

Adverse Effects include (refer to SPC for full list):

Visual changes, retinal damage, GI disturbances, headache, skin reactions, ECG changes, ototoxicity, hair loss, discoloration of the skin, nails and mucous membranes, blood disorders (including thrombocytopenia, agranulocytosis and aplastic anaemia), mental changes (including emotional disturbances and psychosis), photosensitivity, hepatic damage, Stevens-Johnson Syndrome, myopathy, bronchospasm

Specialist responsibilities:

- Confirm the diagnosis of rheumatoid arthritis, systemic or discoid lupus erythematosus
- Discuss with the patient the benefits and side effects of treatment with hydroxychloroquine
- If the patient is a woman of child bearing potential – ensure that they are aware of the importance of effective contraception and the need to discuss with their consultant if they wish to become pregnant
- Ensure that the patient understands and accepts their responsibilities (see section below)
- Seek consent for treatment and document in the patient's notes.
- Ensure baseline monitoring of full blood count, biochemical profile ophthalmological examination and muscle function.
- Discuss how the patient/carer can be aware of possible signs hydroxychloroquine toxicity or intolerance
- Provide written instruction to the GP for initiation and escalation of hydroxychloroquine.
- Provide the patient with a monitoring booklet and enter the blood results into the booklet.
- Review the patient at the intervals specified below to monitor the patient's disease activity, the efficacy of the treatment and the ability to tolerate it, and consider whether continuation of treatment is appropriate.
- Discontinue if no response or patient has a significant adverse effect.
- Promptly communicate with the GP via a clinic letter any changes in treatment, results of monitoring undertaken, and assessment of adverse events. The clinic letter should clearly state if the dose has remained the same or if a dose adjustment had been made – specifically highlighting the new dose in comparison with the preceding one.
- Advise GPs when to stop treatment.
- Provide clear arrangements for back-up, advice and support.
- Report serious adverse events at https://yellowcard.mhra.gov.uk/

GP's responsibilities:

- Initial referral to consultant Rheumatologist raising the possibility of rheumatological disease
- Provide the patient with monthly repeat prescriptions of medication following written instructions for initiation and escalation by the specialist. The patient should allow at least 48 hours for the prescription from the GP to be generated.
- Continue monitoring as outlined on the first page and document the results in the monitoring booklet.
- Ensure patient's monitoring booklet and practice computer system are updated with any dose changes.
- Refer promptly to the specialist if there is a change in the patient's status or concerns regarding compliance. In most cases, do not stop treatment without discussion with the Rheumatology Helpline.
- Report serious adverse events to the specialist and at https://yellowcard.mhra.gov.uk/
- Administer Pneumococcal Vaccine/ Pneumovax® II and annual influenza vaccines
- Consider passive immunisation with Varicella zoster immunoglobulin in non-immune patients exposed to chicken pox or shingles.

Patient responsibilities:

- Read the written patient information provided about the drug and have a clear understanding of the risks/benefits of oral hydroxychloroquine treatment.
- Attend for blood tests and opthalmological examinations
- Limit intake of alcohol to the national safe weekly limits.
- Report any adverse effects to their GP and/or specialist whilst treated with hydroxychloroquine.
- Take monitoring booklet every time the patient sees the GP, has a hospital appointment or visits the pharmacist.

Secondary care review: During initiation: 4 – 6 weekly until controlled **Once disease controlled:** Annual review by consultant		
Availability: 200mg tablet: 60 = £4.86 *Prices from Online Drug Tariff February 2016*		
Back up advice and support: Rheumatology Helpline		**Telephone:** 0151 604 7505
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