City and Hackney Clinical Commissioning Group
Homerton University Hospital Foundation Trust

SHARED CARE GUIDELINE

HYDROXYCHLOROQUINE

Treatment of Inflammatory Conditions in Adult Dermatology and Rheumatology Patients

DOCUMENT TO BE SCANNED INTO ELECTRONIC RECORDS AND FILED IN NOTES

INTRODUCTION – Indication and Licensing

Hydroxychloroquine is an antimalarial agent licensed in the treatment of autoimmune inflammatory conditions. Hydroxychloroquine has several pharmacological actions which may be involved in its therapeutic effect in inflammatory conditions, but the role of each is not known. It may take up to 12 weeks for the therapeutic effect to be observed.

Licensed indications: rheumatoid arthritis, discoid and systemic lupus erythematosus, and dermatological conditions caused or aggravated by sunlight.

PATIENT PATHWAY

Clinical Speciality / Indication	Prescribing Initiated by	Prescribing Continued by	Monitored by	Duration of treatment
Dermatology Rheumatology	Dermatologist Rheumatologist	Hospital to prescribe 1 month then GP to take over prescribing.	No routine laboratory monitoring required.	Ongoing if efficacious.

Reviews & dose adjustments

The patient will be reviewed periodically by the hospital specialist team in clinic. Dosing adjustments are to be done by the hospital and this information communicated to the GP in writing within 14 days.

ORAL DOSE AND ADMINISTRATION

- 200mg once or twice daily (maximum 6.5mg/kg/day based on ideal body weight).
- Dosage may be reduced to 200 mg daily depending on clinical response.
- To be taken with or after food.

Vaccinations

- Hydroxychloroquine is not an immunosuppressant and therefore patients taking this do not necessarily require flu or pneumococcal vaccination. If the patient has other risk factors for flu and pneumonia, offer vaccination against influenza (annually) and pneumococcus (single dose and can be repeated every 5 years).
- Concomitant use of a live vaccine is **compatible** with Hydroxychloroquine, these include: shingles, oral polio, MMR, BCG and yellow fever vaccines. Note oral typhoid vaccine is inactivated by Hydroxychloroquine.

CAUTIONS

- Neurological disorders (especially in those with a history of epilepsy).
- Severe gastro-intestinal disorders.
- G6PD deficiency and acute porphyria, and in the elderly.
- Hydroxychloroquine may exacerbate psoriasis and myasthenia gravis.
- Moderate to severe hepatic impairment and/or concomitant use of hepatotoxic drugs.
- Known hypersensitivity to quinine.
- Renal impairment.

CONTRAINDICATIONS

- Known hypersensitivity to 4-aminoquinoline (e.g. chloroquine).
- Pre-existing maculopathy of the eye.

INTERACTIONS

- **Digoxin** – plasma concentration of digoxin possibly increased by Hydroxychloroquine.
- **Amiodarone, moxifloxacin** – avoid concomitant use due to risk of ventricular arrhythmias.
- **Antacids** – absorption of Hydroxychloroquine may be reduced, leave 4 hours gap between dosing of the drugs.
- **Antidiabetic drugs** – Hydroxychloroquine has been known to cause severe hypoglycaemia, a decrease in doses of insulin or antidiabetic drugs may be required.

MONITORING STANDARDS FOR MEDICATION AT THE ACUTE NHS TRUST

Pre-treatment monitoring to be done by the specialist team

FBC, LFTs, U&Es (including eGFR), CRP[#], ESR[#] and weight (including ideal body weight).
Ask about visual impairment which is not corrected by glasses, and record near visual acuity of each eye.*
If no abnormality detected: commence treatment.*
If impairment or eye disease present: assessment by an optometrist is advised and any abnormality should be referred to an ophthalmologist.*

Ongoing monitoring

Annual review by an optometrist*, this should be more frequent and adapted to the patient in the following situations:

- Daily dosage exceeds 6.5mg/kg/day lean body weight.
- Renal insufficiency.
- Visual acuity below 6/8.
- Age above 65 years.
- Cumulative dose more than 200g.

The risk of ocular toxicity is low in the first 5-7 years of Hydroxychloroquine exposure (0.3%). The risk of ocular toxicity increases after this period and with a cumulative dose of >1000g. **Annual eye assessment (ideally including optical coherence tomography)** is required if continued for >5 years.

[#]Monitoring of CRP and ESR may not be applicable in some conditions.
N.B. The Royal College of Ophthalmologists is in the process of developing national guidelines and the above recommendations on monitoring of ocular toxicity will be updated to reflect any changes in the guidelines.

KEY ADVERSE EFFECTS & ACTIONS

- Ocular toxicity (retinopathy with changes in pigmentation and visual field defects, corneal changes including oedema and opacities, haloes, blurring of vision and photophobia).
- Gastrointestinal disturbances (nausea, diarrhoea, anorexia, abdominal pain).
- ECG changes.
- Hypoglycaemia - patients should be warned about the risk and the associated clinical signs and symptoms.
- Dizziness, headache and convulsions.
- Skin rashes, pruritus, hair depigmentation, hair loss, and discoloration of skin, nails, and mucous membranes.
- Blood disorders (including thrombocytopenia, agranulocytosis, and aplastic anaemia).
- Myopathy (including cardiomyopathy and neuromyopathy). May be reversible after drug discontinuation, but recovery may take many months.

Adverse effects	**Actions (*what action should the GP take if identified in primary care)***
Visual disturbances, abnormal colour vision, other symptoms suggestive of retinal damage.	**Stop drug** and refer to an optometrist, and then if appropriate an ophthalmologist.
Abnormal bruising, bleeding or severe sore throat	**Stop drug and check FBC** immediately. **Seek advice** from the specialist team.
Skin rash, pruritus	**Stop drug and seek advice** from the specialist team.
Deterioration of hepatic or renal function	**Seek advice** from the specialist team.

The SCG lists only the key information. Please refer to the current British National Formulary and Summary of Product Characteristics for comprehensive information on cautions, contraindications, interactions and adverse effects.

PREGNANCY AND BREAST FEEDING

- Hydroxychloroquine crosses the placenta, however the British Society of Rheumatology does not recommend the discontinuation of Hydroxychloroquine during the preconception period/pregnancy.
- Hydroxychloroquine does not need to be stopped during pregnancy.
- Men with partners who are trying to conceive can continue to take Hydroxychloroquine.

Please refer to the current British National Formulary and Summary of Product Characteristics for comprehensive information.

SHARED CARE

Shared care guideline*:* is a document which provides information allowing patients to be managed safely by primary care, secondary care and across the interface. It assumes a partnership and an agreement between a hospital specialist, GP and the patient and also sets out responsibilities for each party. The intention to shared care should be explained to the patient and accepted by them. Patients are under regular follow-up and this provides an opportunity to discuss drug therapy. Intrinsic in the shared care agreement is that the prescribing doctor should be appropriately supported by a system of communication and cooperation in the management of patients. The doctor who prescribes the medicine has the clinical responsibility for the drug and the consequence of its use**.**

Consultant

1. Ensure that the patient/carer is an informed recipient in therapy.
2. Ensure that the patient understands their treatment regimen and any monitoring or follow up that is required (using advocacy if appropriate). Issue any local patient information leaflets where appropriate.
3. Ensure baseline investigations are normal before commencing treatment.
4. Initiate treatment and prescribe until the GP formally agrees to share care (as a minimum, supply the first month of treatment or until patient is stabilised).
5. Send a letter to the GP requesting shared care for this patient.
6. Clinical and laboratory supervision of the patient by blood monitoring and routine clinic follow-up on a regular basis.
7. 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 (unless otherwise covered by letter e.g. from the Clinical Nurse Specialist).
8. Where the GP is out of area and is not performing the phlebotomy, the blood test form/EPR request MUST specify that blood results are also copied to the GP. Specialist team to check with pathology IT if unsure on how to do this.
9. Evaluation of any reported adverse effects by GP or patient.
10. 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.
11. Inform GP of patients who do not attend clinic appointments.
12. Ensure that backup advice is available at all times.
13. Advise that the patient receives appropriate vaccination in primary care either prior to commencing treatment and/or during a treatment that is likely to cause immunosuppression.

General Practitioner

1. Ensure that the patient understands 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.
2. Monitor patient's overall health and well-being.
3. Report any adverse events to the consultant, where appropriate.
4. Report any adverse events to the MHRA / CHM, where appropriate.
5. Help in monitoring the progression of disease.
6. Prescribe the drug treatment as described.
7. Provide appropriate vaccinations to patients receiving treatments likely to cause immunosuppression.

City and Hackney Medicines Management Team

1. To provide feedback to acute trusts via the Joint Prescribing and Medicines Management Group.

2. To support GPs to make the decision whether to accept clinical responsibility for prescribing.
3. To support acute trusts in resolving issues that may arise as a result of shared care.

Patient/ Carer

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

Costs

Drug Product	Cost in primary care
Hydroxychloroquine sulfate 200mg tablets	60-tab pack = £5.31

Based on BNF edition 73 (March – September 2017)

RESOURCES AVAILABLE

- Arthritis Research UK website, available at http://www.arthritisresearchuk.org
- British Association of Dermatologists, available at http://www.bad.org.uk

Relevant contact details	
Consultant or Registrar on-call *via* switchboard	020 8510 5555
Clinical Nurse Specialist (helpline)	**Dermatology** 0208 510 7690 **Rheumatology** 07917 521 117
Generic email	**Rheumatology** huh-tr.rheumliaison@nhs.net (clinical queries) huh-tr.rheumatologyadmin@nhs.net (admin queries)
Homerton University Hospital NHS Foundation Medicines Information	020 8510 7000
City and Hackney Medicines Management Team	0203 816 3224

References

- SCG template adapted from NELMMN and Barts Health NHS Trust.
- BNF edition 73, available at https://ebnf.homerton.nhs.uk (last accessed 20 April 2017).
- Summary of product characteristics. Plaquenil 200mg film-coated tablets. Available at www.medicines.org.uk (last accessed 28 April 2017).
- The British Society for Rheumatology, available at: http://www.rheumatology.org.uk (last accessed 7 April 2017).
    1. BSR and BHPR guideline for the prescription and monitoring of non-biologic disease modifying anti-rheumatic drugs (2017).
    2. BSR/BHPR guideline for disease-modifying anti-rheumatic drug (DMARD) therapy in consultation with the British Association of Dermatologists (2008).

Date SCG approved by Joint Prescribing Group (JPG): 08/2017 Review date: 08/2018