Name: Attach Banda Label here
Address:

Date of Birth:
NHS number:

Coventry & Warwickshire
Area Prescribing Committee

SHARED CARE AGREEMENT

Hydroxychloroquine

SCA: treatment of rheumatoid arthritis, juvenile chronic arthritis, discoid and systemic lupus erythematosus

AREAS OF RESPONSIBILITY FOR THE SHARING OF CARE

This shared care agreement outlines suggested ways in which the responsibilities for managing the prescribing of hydroxychloroquine for Rheumatoid Arthritis (RA) and Systemic Lupus Erythematosus (SLE) can be shared between the specialist and general practitioner (GP). GPs are **invited** to participate. If the GP is not confident to undertake these roles, then he or she is 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, GP and patient. The intention to share care is usually explained to the patient by the specialist initiating treatment. It is important that patients are consulted about treatment and are in agreement with it.

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

Specialist responsibilities

1. Discuss the benefits, side effects and expected outcomes of treatment with the patient.
2. Issue the patient with patient drug information leaflet, offer treatment advice and answer the patient's questions.
3. To obtain patient consent to shared care arrangement and agreement to hold personal and treatment details on computerised blood monitoring database.
4. To undertake appropriate baseline tests: height, weight, blood pressure, FBC, GFR, ALT, AST, Albumin. To ensure patients have baseline formal ophthalmic examination, ideally including objective retinal assessment for example using optical coherence tomography, within 1 year of commencing an anti-malarial drug.
5. Enquire about any visual impairment which is not corrected by spectacles.
6. Record reading performance with each eye with reading spectacle correction if worn, using near vision test type, at baseline and annual review.
7. To provide results of baseline tests and recommend frequency of monitoring to the GP such as yearly eye test.
8. Initiate and stabilise treatment. Supply 3 months' treatment (in instalments as appropriate).
9. To ensure that the patient understands the dosing regimen.
10. Confirm with the GP in writing whether he or she is willing to participate in shared care by faxing the template letter.
11. To review the patient's condition yearly and communicate promptly with the GP on any treatment changes.
12. To advise the GP on when to adjust the dose, stop treatment, or consult with specialist.
13. To ensure that clear backup arrangements exist for GPs to obtain advice and support.

Report adverse events to the MHRA on a Yellow Card www.mhra.gov.uk/yellowcard, and to the GP and appropriate Medicines Optimisation team.

General Practitioner responsibilities

1. Reply to the request for shared care as soon as practicable, preferably within 2 weeks (in writing) by faxing back the signed template form.
2. Prescribe Hydroxychloroquine at the dose recommended.
3. To ensure blood forms issued by secondary care are used for routine blood test monitoring and if necessary patient to attend surgery for blood tests as specified on pre-printed blood form.
4. Ensure compatibility with other concomitant medication.
5. Adjust the dose as advised by the specialist.
6. Stop treatment on the advice of the specialist, or immediately if an urgent need to stop treatment arises, such as patient complains of blurred vision.

Report adverse events to the MHRA on a Yellow Card (www.mhra.gov.uk/yellowcard), the specialist, and the appropriate Medicines Optimisation team.

Patient/carer's role

1. Report to the specialist or GP if he or she does not have a clear understanding of the treatment.
2. Attend all appointments with GP and specialist.
3. Agree to routine blood monitoring for the duration of treatment
4. Share any concerns with GP or specialist in relation to treatment with hydroxychloroquine.
5. Inform specialist or GP of any other medication being taken, including over-the-counter products and herbal remedies.

Report any adverse effects or warning symptoms to the specialist or GP. The patient may also choose to report any adverse drug reaction direct to the MHRA on a Yellow Card , available at pharmacies, GP surgeries or from the Yellow Card hotline (freephone 0808 100 3352 during business hours). The form can also be downloaded from www.mhra.gov.uk/yellowcard

This SCA should be read in conjunction with the Summary of Product Characteristics (SPC) and the current edition of the British National Formulary

Back-up Advice and Support: See patient letter and/or other supporting information for contact details of clinician(s) initiating and stabilising

SUPPORTING INFORMATION *(see SPC for complete details/specific guidance http://emc.medicines.org.uk)*

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

Dosage and administration: Available as 200 mg tablets in 60 tablet packs
Adults (including the elderly): The minimum effective dose should be employed. This dose should not exceed 6.5 mg/kg/day (calculated from ideal body weight and not actual body weight) and will be either 200 mg or 400 mg per day.

In patients able to receive 400 mg daily: Initially 400 mg daily in divided doses. The dose can be reduced to 200 mg when further improvement is evident. The maintenance dose should be increased to 400 mg daily if the response lessens.
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. For rheumatic disease treatment should be discontinued if there is no improvement by 6 months.
In light-sensitive diseases, treatment should only be given during periods of maximum exposure to light.

Monitoring: Before Starting Hydroxychloroquine (HCQ) Treatment:
Patients should have their VZV status assessed (and dose adjusted if impaired).
If taking HCQ in combination with another DMARD then blood monitoring will be monthly

Visual acuity of each eye (with glasses where appropriate) using a standard reading chart should be recorded.
Patients should be asked about visual impairment (not corrected by glasses). If impairment or eye disease present, assessment by an optometrist is advised and any abnormality referred to an ophthalmologist.
Hydroxychloroquine treatment should be only be initiated if no abnormality detected.
Baseline assessment should include height, weight, blood pressure and laboratory evaluation [full blood count (FBC), calculated glomerular filtration rate (GFR), alanine aminotransferase (ALT) and/or aspartate aminotransferase (AST).

During Hydroxychloroquine Treatment: Annual eye assessment (ideally including optical coherence tomography) if continued for > 5 years. No other routine monitoring needed.

Standard monitoring schedule when starting or adding a combination DMARD ONLY (i.e. Check FBC, creatinine/calculated GFR, ALT and/or AST and albumin every 2 weeks until on stable dose for 6 weeks; then once on stable dose, monthly FBC, creatinine/calculated GFR, ALT and/or AST and albumin for 3 months; thereafter, FBC, creatinine/calculated GFR, ALT and/or AST and albumin at least every 12 weeks. More frequent monitoring is appropriate in patients at higher risk of toxicity.

Dose increases should be monitored by FBC, creatinine/calculated GFR, ALT and/or AST and albumin every 2 weeks until on stable dose for 6 weeks then revert to previous schedule.

During a serious infection, temporarily discontinue until the patient has recovered from the infection

Contact rheumatology team urgently and withhold treatment if any of the following develop:
white cell count <3.5 x 10^9/l; mean cell volume >105 Fl and if B12 or folate low start supplementation; neutrophils <1.6 X 10^9/l;
creatinine increase >30% over 12 months and/or calculated GFR <60 ml/min; unexplained eosinophilia >0.5 X10^9/l;
ALT and/or AST >100 U/l; platelet count <140 X10^9/l; unexplained reduction in albumin <30 g/l.

As well as responding to absolute values in laboratory tests, it is also relevant to observe trends in results (e.g. gradual decreases in white blood cells or albumin, or increasing liver enzymes).

Ask patients about visual symptoms and monitor visual acuity annually using the standard reading chart.
Refer to ophthalmologist if visual acuity changes or if vision blurred. Warn patient to seek prescribing doctor's advice about stopping treatment.

A child treated for juvenile idiopathic arthritis should receive slit-lamp examination routinely to check for uveitis.

If long-term treatment is required (more than 5 years), individual arrangement should be agreed with local ophthalmologist. Annual eye assessment (ideally including optical coherence tomography) if continued for >5 years

(See current BNF, The Royal College of Ophthalmologists- Hydroxychloroquine and Ocular Toxicity: Recommendations on Screening 2009)

Ocular examination should be more frequent and adapted to the patient in the following situations: daily dosage exceeds 6.5 mg/kg lean body weight (absolute body weight used as a guide to dosage could result in an over dosage in the obese), renal insufficiency, visual acuity below 6/8, age above 65 years and cumulative dose more than 200g.
Hydroxychloroquine should be discontinued immediately in any patient who develops a pigmentary abnormality, visual field defect, or any other abnormality not explainable by difficulty in accommodation or presence of corneal opacities. Patients should continue to be observed for possible progression of the changes.
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.
Although the risk of bone marrow depression is low, periodic blood counts are advisable as anaemia, aplastic anaemia, agranulocytosis, a decrease in white blood cells, and thrombocytopenia have been reported. Hydroxychloroquine should be discontinued if abnormalities develop.
All patients on long-term therapy should undergo periodic examination of skeletal muscle function and tendon reflexes. If weakness occurs, the drug should be withdrawn.

Cautions: The occurrence of retinopathy is very uncommon 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. Hydroxychloroquine should be used with caution in patients taking medicines which may cause adverse ocular or skin reactions.

Caution should also be applied when it is used in the following:
• patients with hepatic or renal disease, and in those taking drugs known to affect those organs. Estimation of plasma hydroxychloroquine levels should be undertaken in patients with severely compromised renal or hepatic function and dosage adjusted accordingly.
• patients with severe gastrointestinal, neurological or blood disorders.
Caution is also advised in patients with an sensitivity to quinine, those with glucose-6-phosphate dehydrogenase deficiency, those with porphyria such as cutanea tarda which can be exacerbated by hydroxychloroquine and in patients with psoriasis since it appears to increase the risk of skin reactions. Patients with rare hereditary problems of galactose intolerance, the Lapp lactase deficiency or glucose-galactose malabsorption should not take this medicine. Lactation: Careful consideration should be given to using hydroxychloroquine during lactation, since it has been shown to be excreted in small amounts in human breast milk, and it is known that infants are extremely sensitive to the toxic effects of 4-aminoquinolines.

Contraindications: Known hypersensitivity to 4-aminoquinoline compounds, pre-existing maculopathy of the eye and pregnancy.

Side effects: [see SPC for supporting information]
Common nausea, abdominal pain, headache, less common skin pigmentation (rash), muscle weakness, very rarely, retinopathy

Ocular effects: Retinopathy with changes in pigmentation and visual field defects can occur, but appears to be uncommon if the recommended daily dose is not exceeded. In its early form it appears reversible on discontinuation of hydroxychloroquine. If allowed to develop, there may be a risk of progression even after treatment withdrawal. Patients with retinal changes may be asymptomatic initially, or may have scotomatous vision with paracentral, pericentral ring types, temporal scotomas and abnormal colour vision.

Corneal changes including oedema and opacities have been reported. They are either symptomless or may cause disturbances such as haloes, blurring of vision or photophobia. They may be transient and are reversible on stopping treatment.

Blurring of vision due to a disturbance of accommodation which is dose dependent and reversible may also occur.

Hydroxychloroquine does not have black triangle (▼) status. All serious suspected adverse reactions (even well recognised or causal link uncertain) should be reported to the MHRA.

Drug interactions (see also above under cautions): See current SPC for a full list. Clinically relevant interactions include:

- Avoid concurrent use of hepatotoxic drugs, nephrotoxic drugs.
- Avoid concomitant use of amiodarone, ciclosporin, moxifloxacin, ciprofloxacin, and quinine.
- Hydroxychloroquine sulphate has been reported to increase plasma digoxin levels: serum digoxin levels should be closely monitored in patients receiving combined therapy.
- Hydroxychloroquine sulphate may also be subject to several of the known interactions of chloroquine even though specific reports have not appeared. These include: potentiation of its direct blocking action at the neuromuscular junction by aminoglycoside antibiotics; inhibition of its metabolism by cimetidine which may increase plasma concentration of hydroxychloroquine; antagonism of effect of neostigmine and pyridostigmine; reduction of the antibody response to primary immunisation with intradermal human diploid-cell rabies vaccine.
- Antacids may reduce absorption of hydroxychloroquine so it is advised that a 4 hour interval be observed between hydroxychloroquine and antacid dosaging.
- As hydroxychloroquine may enhance the effects of a hypoglycaemic treatment, a decrease in doses of insulin or antidiabetic drugs may be required.

Cost: At current prices one year's treatment at 400 mg daily will cost £ £50.74 (Prescription Pricing Division (PPD).
NHS Business Services Authority. Drug Tariff March 2018. Accessed 6.3.18 via www.nhsbsa.nhs.uk)

References:

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3. Ledingham J, Gullick N, Irving N et al. on behalf of the BSR and BHPR Standards, Guidelines and Audit Working Group; BSR and BHPR guideline for the prescription and monitoring of non-biologic disease-modifying anti-rheumatic drugs, Rheumatology, Volume 56, Issue 6, 1 June 2017, Pages 865–868. Available at https://academic.oup.com/rheumatology/article/56/6/865/3053478/BSR-and-BHPR-guideline-for-the-prescription-and