Shared Care Guideline

Hydroxycarbamide for Psoriasis (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).

It is essential that a transfer or sharing of prescribing responsibilities should not take place without the sharing of information between the Dermatology Prescriber and the individual GP, and their mutual agreement to this to ensure their full confidence when prescribing.

These are not rigid guidelines. In all cases, Consultants and GPs should clearly communicate regarding the appropriate management of individual patients. As always, the doctor who prescribes the medication has the clinical responsibility for the drug and the consequences of its use.

Indication:	**Dosage and administration:**
Psoriasis (NB this is not a licensed indication)	500mg to 2g daily (as a single dose or in two divided doses)

Additional Information

- Patients should be instructed to report immediately any evidence of infection, unexpected bruising, bleeding or any other manifestation of bone marrow depression
- Hydroxycarbamide should not be given to women who are pregnant, or likely to become pregnant. Effective contraception must be used before starting and during therapy
- Men under therapy are advised to use effective contraception during and for at least 3 months after therapy. They should be informed about the possibility of sperm conservation before the start of therapy

Monitoring requirements

- FBC, LFTs, U/Es and creatinine weekly for the first four weeks, then fortnightly for four weeks, then monthly (potentially, 3-monthly) thereafter if stable
- If dose is increased, repeat FBC and LFTs after 2 weeks, and then return to monthly.

For dermatology patients, responsibility for monitoring rests with the Dermatology Consultant for first 3 months. Thereafter, responsibility for monitoring rests with the GP.

Action to be taken if abnormal results/adverse effects:

WBC < 3.5 x 10^9/L: check neutrophil count.

Neutrophils < 2.0 x 10^9/L: monitor weekly. If falls below 1.5 x 10^9/L STOP DRUG and contact Dermatology Consultant

Platelets < 150 x 10^9/L: monitor weekly. If falls below 100 x $10^{9/}$L, contact Dermatology Consultant

Erythrocytic abnormalities; (raised MCV) megaloblastic erythropoeisis, which is self-limiting, is often seen early in the course of hydroxycarbamide therapy but may persist throughout therapy. The morphologic change resembles pernicious anaemia, but is not related to vitamin B_{12} or folic acid deficiency.

MCV > 105fl: check B_{12} and folate and if low, start appropriate supplementation.

Anaemia: check Iron, B12, folate and correct as appropriate. If persistent and progressive a dose reduction may be needed or the drug stopped. Discuss with consultant.

A three fold increase in ALT/AST: monitor weekly. If ALT continues to rise, contact Dermatology Consultant.

Oral ulceration, sore throat, abnormal bruising: check full blood count.

Sore throat: check FBC and act on results as above

Abnormal bruising: check FBC and act on results as above

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.

Any concerns regarding interim blood counts contact referring Dermatology Consultant for advice.

Cautions and contraindications:

Cautions

- Breastfeeding
- Renal dysfunction:

If CrCl falls below 45ml/min — reduce dose by 25% and inform dermatology consultant
If CrCl falls below 30ml/min — reduce dose by 50% and refer to dermatology consultant

- Hydroxycarbamide is not licensed for use in combination with antiretroviral agents for HIV disease and it may cause treatment failure and toxicities (in some cases fatal) in HIV patients.

Contra-indications

- Marked leucopenia (WCC <2.5x10^9/L),
- Thrombocytopenia (Platelets < 100x10^9/L),
- Severe anaemia
- Those who have previously shown hypersensitivity to hydroxycarbamide.

Adverse effects:

- Bone marrow suppression (leucopenia, thrombocytopenia, anaemia)
- Increased uric acid which may lead to gout or uric acid nephropathy.
- Anorexia, nausea, vomiting, diarrhoea, constipation, headache, drowsiness, dizziness, stomatitis, alopecia, skin rash, melaena, abdominal pain, pulmonary oedema, hallucinations, convulsions, skin ulceration, dysuria, increased creatinine fever, chills, malaise, increased hepatic enzymes.
- Rarely – diffuse pulmonary infiltrates or fibrosis and dyspnoea.
- After long term treatment – hyperpigmentation, erythema, atrophy of the skin and nails, scaling, violet papules, alopecia, secondary leukaemia has been reported. It is unknown whether this leukaemogenic effect is secondary to hydroxycarbamide or associated with the patient's underlying disease.

Drug interactions:

- Antiretrovirals for HIV - Cases of pancreatitis and hepatotoxicity (some with fatal outcomes) and severe peripheral neuropathy have been observed.
- May delay plasma iron clearance and decrease rate of iron utilization by erythrocytes but it does not appear to alter the red blood cell survival time.
- Effect of hydroxycarbamide potentiated by radiotherapy and cytotoxics.
- Combining hydroxycarbamide with medications such as methotrexate or cytarabine can result in suppression of bone marrow and therefore requires closer supervision.
- Patients should avoid immunisation injections with any live vaccines.

Specialist responsibilities:

- Obtain baseline blood results for FBC, LFTs and U&Es.
- Undertake required monitoring for first 3 months
- Discuss with the patient, the benefits and side effects of treatment.
- Discuss how the patient/carer can be aware of possible signs hydroxycarbamide toxicity or intolerance.

- Seek consent for treatment and document in the patient's notes.
- If the patient is a woman of child bearing potential or male – 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
- Explain the dosage regimen.
- Prescribe hydroxycarbamide for a three month trial period. Discontinue treatment if no response, or if significant adverse event occurs.
- 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.
- Carry out monitoring according to the recommended schedule and document in the patient's monitoring booklet.
- Advise GPs when to stop treatment.
- Report serious adverse events (e.g. those requiring hospitalisation) to the Committee on Safety of Medicines CSM)
- Provide clear arrangements for back-up, advice and support

GP responsibilities:

- Monitor the FBC, LFTs and U&Es as per recommended schedule.
- Once the specialist has recommended continuation following the trial period provide the patient with monthly repeat prescriptions of hydroxycarbamide. The patient should allow at least 48 hours for the GP to generate a prescription.
- Ensure practice computer systems 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 Dermatology Consultant.
- Report serious adverse events to the specialist and CSM.

Patient responsibilities:

- Report any adverse effects to their GP and/or specialist whilst treated with hydroxycarbamide
- Stop hydroxycarbamide and contact their doctor immediately if they have an infection, severe sore throat, fever and mouth ulcers, unexplained bleeding or bruising.
- Ensure they have a clear understanding of the indication for treatment and the prescribed dose.

Secondary care review:

- Every 6 months by consultant or nurse.

Availability: Hydroxycarbamide capsules 500mg x 100 = £11.08
November 14 Drug Tariff

Back up advice and support:	**Telephone/Fax**	**Email address:**
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