

Shared Care Guideline: HYDROXYCARBAMIDE

Overview	Hydroxycarbamide is a haematology drug
Indication	<p>Used for the management of haematological myeloproliferative disorders including:</p> <p>Licensed:</p> <ul style="list-style-type: none"> • Essential Thrombocythaemia • Chronic Myeloid Leukaemia • Primary Proliferative Polycythaemia (Polycythaemia Vera) <p>Unlicensed:</p> <ul style="list-style-type: none"> • Myelofibrosis, • Unclassified myeloproliferative disorders <p>Hydroxycarbamide is also used in CDDFT in Chronic Lymphoid Leukaemia (CLL) Use for this indication is not covered by this shared care agreement as responsibility remains with the specialist.</p> <p>Also Sickle cell is a real rarity in CDDFT there for use for this indication would also remain with the specialist and therefore not covered by this shared care agreement</p>
Dose	<p>Typical doses range from 500mg to 3000mg daily. A small number of patients may require alternate day dosing. Doses are adjusted to clinical response and will be provided in writing by the reviewing consultant.</p> <ul style="list-style-type: none"> • Allopurinol may be co-prescribed for the first 1 to 2 months. • Patients with Essential Thrombocythaemia should also be prescribed Aspirin 75mg daily
Specialist's Responsibilities	<p>Initial investigations: Full Blood Count (FBC), Liver Function Tests (LFTs), Urea & Electolytes (U&Es)</p> <p>Initial prescribing until stable:</p> <p>Prescribing responsibility and monitoring to stay with the specialist until patient has been on a stable dose for at least 6 weeks at which point shared care is requested.</p> <p>Specialist to issue a prescription for enough medication to last until shared care is accepted by GP. This will usually be a minimum of 28 days.</p> <ul style="list-style-type: none"> • Specialist to provide chemotherapy record booklet for recording of monitoring and information • Specialist to provide patient/carer with relevant written information on use, side-effects and need for monitoring of medication • Review results of safety monitoring and request additional tests as required. • Disease monitoring – response to treatment and need to continue therapy • Continue to review the patient at agreed specified intervals (minimum annually), sending a written summary to the GP whenever the patient is reviewed, including the current dose to be prescribed • Provide any other advice or information for the GP if required <p>Communication and Documentation to GP:</p> <ul style="list-style-type: none"> • Obtaining agreement of GP to participate in shared-care arrangement for Hydroxycarbamide therapy. This will be by direct communication or by completing a completing a copy of the shared care request letter (appendix 1) to the GP

	<ul style="list-style-type: none"> • The specialist must ensure that the GP is aware when the next blood monitoring is required. • The GP Must be made aware of any additional monitoring requirements specific to the patient • Prompt communication with the GP regarding the patient's progress, any reassessment and changes in treatment. • Provide additional information and advice to the GP on actions he/she may need to take e.g. on dosage adjustment, other changes in therapy and management of adverse effects, as required.
GP's Responsibilities	<p>Maintenance prescription:</p> <ul style="list-style-type: none"> • Prescribe Hydroxycarbamide in accordance with the specialist's recommendations as outlined in the shared care request letter • Check the patient has had one dose of pneumococcal vaccine (re-vaccination is not recommended) • Ensure no drug interactions with other medicines • Offer influenza vaccine annually <p>Clinical monitoring: Continue to clinically monitor patient in line with this shared care agreement and referral letter from specialist (as described in clinical monitoring section below)</p> <p>Criteria requiring specialist contact:</p> <ul style="list-style-type: none"> • Failure to attend for review or undertake blood tests • Intolerance of drugs • Communications failure <p>Documentation to specialist:</p> <ul style="list-style-type: none"> • Accepting or rejecting request for shared care within 28 days, if rejecting please state concerns and reasons Blood results to specialist via use of patient-held record.
Clinical monitoring:	<p>Arrange and record ongoing monitoring as agreed with specialist – this will normally be:</p> <ul style="list-style-type: none"> • FBC and LFTs: a minimum of once every THREE months for the duration of therapy (in line with advice from specialist) • Ask about oral ulceration/sore throats or unusual bruising at every consultation. <p>NOTE – this guideline sets out the standard monitoring requirements, however it is essential that each patient is considered on an individual basis and monitoring frequency should reflect this. The GP should be made aware of any deviations.</p>
Safety monitoring:	<p>Please refer to Summary of Product Characteristics (SPC) or BNF /eBNF for full details of adverse effects, contraindications, cautions and drug interactions.</p> <ul style="list-style-type: none"> • Monitoring for response and adverse drug reactions (ADRs)

Adverse Events:	<table border="1"> <thead> <tr> <th>Adverse event</th> <th>Action to be taken</th> </tr> </thead> <tbody> <tr> <td>White Blood Cells (WBC) less than $4 \times 10^9/L$</td> <td rowspan="5">Urgently contact the specialist, if unable to do so withhold the medication.</td> </tr> <tr> <td>Neutrophils less than $1.0 \times 10^9/L$</td> </tr> <tr> <td>Haemoglobin decrease from baseline by 30g/L</td> </tr> <tr> <td>More than a TWO fold rise in Alanine transaminase (ALT) / Aspartate aminotransferase (AST) from upper limit of normal</td> </tr> <tr> <td>Platelets less than $100 \times 10^9/L$</td> </tr> <tr> <td>Rash, oral ulceration/sore throat, bruising/bleeding</td> <td>If present arrange urgent FBC</td> </tr> <tr> <td>Mean Cell Volume (MCV) more than 105</td> <td>Vitamin B₁₂ & folate should be checked and if not in range contact specialist</td> </tr> </tbody> </table>	Adverse event	Action to be taken	White Blood Cells (WBC) less than $4 \times 10^9/L$	Urgently contact the specialist, if unable to do so withhold the medication.	Neutrophils less than $1.0 \times 10^9/L$	Haemoglobin decrease from baseline by 30g/L	More than a TWO fold rise in Alanine transaminase (ALT) / Aspartate aminotransferase (AST) from upper limit of normal	Platelets less than $100 \times 10^9/L$	Rash, oral ulceration/sore throat, bruising/bleeding	If present arrange urgent FBC	Mean Cell Volume (MCV) more than 105	Vitamin B ₁₂ & folate should be checked and if not in range contact specialist
	Adverse event	Action to be taken											
	White Blood Cells (WBC) less than $4 \times 10^9/L$	Urgently contact the specialist, if unable to do so withhold the medication.											
	Neutrophils less than $1.0 \times 10^9/L$												
	Haemoglobin decrease from baseline by 30g/L												
	More than a TWO fold rise in Alanine transaminase (ALT) / Aspartate aminotransferase (AST) from upper limit of normal												
	Platelets less than $100 \times 10^9/L$												
Rash, oral ulceration/sore throat, bruising/bleeding	If present arrange urgent FBC												
Mean Cell Volume (MCV) more than 105	Vitamin B ₁₂ & folate should be checked and if not in range contact specialist												
<ul style="list-style-type: none"> • Macrocytosis occurs in almost all patients and may persist for up to one year after stopping therapy • Rarely: anorexia, nausea, vomiting, diarrhoea, headache, drowsiness, dizziness, cutaneous hyperpigmentation. If severe or persistent, refer to the specialist. <p>All suspected serious reactions should be reported to the specialist and the MHRA</p>													
Contra-indications	<ul style="list-style-type: none"> • Pregnancy 												
Cautions	<ul style="list-style-type: none"> • Renal dysfunction: Hydroxycarbamide should be used with caution in patients with marked renal dysfunction. Dose modifications are specified in the NE cancer network Chemotherapy protocol • Mild to moderate hepatic impairment 												
Drug Interactions	<ul style="list-style-type: none"> • There are no significant drug interactions but see British National Formulary (BNF) or eBNF • Toxicity may be potentiated by previous or concomitant radiotherapy or cytotoxic therapy • Patients should not be receiving anti-retroviral therapy containing didanosine and/or Stavudine. 												
Other Information	<p>Fertility, Pregnancy and Breast-feeding:</p> <ul style="list-style-type: none"> • Female patients must be advised not to conceive whilst receiving hydroxycarbamide. • A reliable form of contraception should be used by men and women whilst on hydroxycarbamide. • Patients should not breastfeed whilst receiving hydroxycarbamide. <p>General:</p> <ul style="list-style-type: none"> • GPs should be alerted to any unexplained bruising or bleeding. • Live vaccines should be avoided by patients receiving hydroxycarbamide • Passive immunisation using Varicella immunoglobulin (VZIG) should be considered in non-immune patients if exposed to chicken pox or shingles. Contact virology for advice if exposure is suspected • Patients receiving long term therapy should be advised to protect skin from sun exposure 												
Contact Details	<p>Thank you for sharing the care of this patient. If you have any concerns or queries, please contact the Consultant, secretary or call the appropriate helpline below. Clinical Nurse Specialists 01325 743933 Ward 42 DMH 01325 743938</p>												

GP name
GP address

Dear Dr

Request for Shared Care of Hydroxycarbamide

Date:

Re: Patient's name
Address

DOB:
Hospital Number:

This patient has been prescribed **Hydroxycarbamide** for the management of

- Essential Thrombocythaemia
- Myelofibrosis (unlicensed)
- Chronic Myeloid Leukaemia
- Unclassified Myeloproliferative disorders (unlicensed)
- Polycythemia Rubra Vera

The patient's current dose isper day

The patient was commenced on this drug onand has been stable on the current dose since.....

I would now like to ask you to take over the responsibility for prescribing this medication for this patient, as agreed by your CCGs and the Area Prescribing Committee.

The shared care document lists the monitoring requirements for this medication.

The next blood monitoring is due on and should be continued in line with the shared care guideline.

In addition, the following patient specific monitoring is required for this patient

.....

This is part of the shared care guideline approved by the Area Prescribing Committee, available at <http://medicines.necsu.nhs.uk/guidelines/durham-darlington/>.

The patient will remain under regular clinical review by his or her usual consultant/ specialist nurse as described in the shared care agreement.

Please send back the second part of this letter, with 28 days, so we know that we have your agreement to this arrangement. If you are not happy to accept this patient or have any concerns, then please contact my secretary as soon as practically possible

Yours sincerely

Consultant name

Contact details

GP Agreement

Patient's Name:

DOB:

Hospital No:

I agree to take over the prescribing and monitoring of Hydroxycarbamide in line with the approved shared care document as found at <http://medicines.necsu.nhs.uk/guidelines/durham-darlington/>

Dose to be prescribed

Dated/...../

Signed:

GP's Name:

GP contact details

Please return to Consultant's secretary. You may wish to keep a copy for your records.