HYDROXYCARBAMIDE

1. Cytoreductive therapy for CML, CMML and primary polycythaemia
2. Essential Thrombocythaemia
3. Palliative chemotherapy for AML in the elderly
4. Idiopathic myelofibrosis requiring cytoreductive therapy

Please note: This oral agent (old name of hydroxyurea) is being used for the above indications without curative intent, and has historically been used for many years without any proven optimal dosing or scheduling. Consequently, the schedules given below represent those routinely used in the Network but are not exclusive. Doses are routinely modified according to individual response, but doses greater than those listed below should be confirmed with a Consultant.

Drugs/Dosage: **Hydroxycarbamide** doses can vary from 500mg on alternate days to 2500mg once daily, according to individual response

Generally, hydroxycarbamide is used to lower and manage initial high counts of abnormal cell lines,
e.g. in essential thrombocythaemia, doses should be adjusted to maintain a platelet count of 200 – 400 $x10^9$/l, while the neutrophil count should ideally be maintained above 2.0 x 10^9/l (although slightly lower counts may be acceptable depending on the patient and clinical circumstances).

Administration: Available as 500mg capsules. Swallow whole with plenty of water.
For patients unable to swallow capsules, hydroxycarbamide suspension 100mg/ml is available as an unlicensed special

Other Drugs: Consider allopurinol if high WBC – review after 4 weeks

Frequency: continuous treatment according to blood count.
Initial response to treatment should be determined after 6 weeks – if significant clinical response, treatment may continue indefinitely.

Main Toxicities: myelosuppression; mouth and leg ulcers with chronic use;
ovarian failure; infertility; possible increased risk of leukaemia

Anti- emetics: not usually required

Regular Investigations:

FBC	initially every 2 weeks, increasing to a maximum interval of 4 months in stable, responding patients
U&Es	baseline
LFTs	baseline

Comments: Note that there is thought to be an increased risk of secondary leukaemia if both hydroxycarbamide and busulfan are used in the same patient - use with caution if patient has already been treated with busulfan[1].

Reason for Update: general review; information about suspension added	Approved by Chair of Alliance TSSG: Dr A Laurie
Version: 3	Date: 18.7.14
Supersedes: Version 2	Review date: August 2017
Prepared by: S Taylor	Checked by: C Tucker

Dose Modifications

Haematological Toxicity: Therapy should be interrupted if the white blood count drops below 2.5 x 10^9/l, or the platelet count below 100 x 10^9/l.

Renal Impairment: Although, in practice, the dose will be titrated according to response, note that impaired renal function may affect drug clearance and the following information is available:

CrCl (ml/min)	Hydroxycarbamide Dose
60	Give 85% dose
45	Give 80% dose
30	Give 75% dose
10	Give 50% dose

Hepatic Impairment: Lack of information. Clinical decision – probably no dose reduction necessary.

Patient Information: Macmillan leaflet for Hydroxycarbamide

Reference: [1]Finazzi G et al; Br J Haem 2000; 110 (3): 577 - 583