DORSET CANCER NETWORK NHS

HAEMATOLOGY SITE SPECIFIC GROUP

Shared Care Guideline for Hydroxycarbamide

Shared care guidelines for use in control of raised blood counts in myeloproliferative disorders (essential thrombocythaemia, primary proliferative polycythaemia, myelofibrosis).

Introduction

This shared care guideline has been developed to support the transfer of responsibility for prescribing Hydroxycarbamide from secondary to primary care. Uncontrolled thrombocytosis and polycythaemia in myeloproliferative disorders are associated with a high risk of thrombotic complications and the platelet count and haematocrit should be maintained at $<500x10^9$/l and <0.45 respectively. Regular full blood count monitoring is required in order to adjust dosage and to detect progression to myelofibrosis and/or AML.

Indications for the use of Hydroxycarbamide

Hydroxycarbamide inhibits bone marrow proliferation by blocking the activity of ribonucleotide reductase. It is licensed for the treatment of chronic myeloid leukaemia but is widely used to control blood counts in other myeloproliferative disorders and is also used in patients with sickle cell anaemia and some solid tumours. Hydroxycarbamide remains the first-line treatment for myeloproliferative disorders other than chronic myeloid leukaemia and its superiority over Anagrelide in the treatment of essential thrombocythaemia was demonstrated in an MRC trial (PT1).

Dose

Hydroxycarbamide is available as 0.5g capsules. The daily dose is dictated by the FBC and usually varies between one capsule (0.5g) and three capsules (1.5g) daily. It is helpful to consider the total weekly dose when making dose adjustments and it is common to vary the dose according to the day of the week.

Shared Care Guideline prepared by Dr Andrew Bell on behalf of the Dorset Cancer Network Haematology Site Specific Group.
Agreed by Bournemouth, Dorset & Poole Prescribing Forum Jan 2009

Safety Issues

- Adverse effects
  In general, hydroxycarbamide is very well tolerated. The commonest adverse events are bone marrow suppression (responds quickly to drug cessation or withdrawl), nausea, diarrhoea, constipation, stomatitis and leg ulcers. Neurological disturbances, temporary impairment of renal function and elevation of liver enzymes have been reported but are extremely rare. There is a possibility that long term usage may further increase the risk of acute myeloid leukaemia developing in myeloproliferative disorders but this has not been substantiated. Patients receiving hydroxycarbamide will have markedly elevated MCVs (this can be ignored if occurs in isolation. If Hb also falls then patient should be referred back to secondary care).

- Cautions
  Hydroxycarbamide should not be given during pregnancy or lactation.
  It is excreted by the kidneys and should be used with caution in renal failure. There are no data to support dose adjustment in patients with impaired hepatic function. Not recommended in patients with LFTS > 5x upper limit of normal.

- Drug interactions
  Other than increased bone marrow suppression when hydroxycarbamide is used concurrently with other myelosuppressive drugs or radiation, no clinically significant interactions have been documented.

Responsibilities of the general practitioner

(i) To prescribe hydroxycarbamide once the patient has been stabilised on treatment
(ii) To refer back to the consultant or nurse practitioner in the event of adverse events or a platelet count >500x10^9/l or <100x10^9/l or a Hb/haematocrit outside the normal range (discovered incidentally outside of planned monitoring).

Responsibilities of the consultant

(i) To diagnose myeloproliferative disorders and to decide on treatment.
(ii) To initiate treatment with hydroxycarbamide and to titrate the dose until blood counts are stable (usually one or two months).
(iii) To advise patients of possible adverse effects.
(iv) To monitor full blood counts and review patient (normally every 2-4 months). Patients with stable control may receive telephone appointments or may be advised by a nurse practitioner.

Cost
The cost of a 100 pack of hydroxycarbamide 0.5g capsules is £11.11(excluding VAT). (Drug Tariff Oct 08).