

- First synthetised in 1869
- Ribonucleotide reductase inhibitor
- MSH study (Charache et al) terminated early in January 1995 due to significant superiority of
- Increases Hb F, reduces neutrophils, alters red cell adhesion, increases red cell water
- The only widely available disease modifying
- Remains somewhat unpopular with patients

- Adults and children with Sickle Cell Disease who have:

 > 3 admissions with painful crises in the previous 12 months

 > 1 admission with painful crisis in the previous 12 months, and are symptomatic in the community

 > 1 life threatening complications of the disease such as acute chest syndrome other indications (such as secondary stroke prevention, pulmonary hypertension) must be discussed with the consultant in charge of the patient.

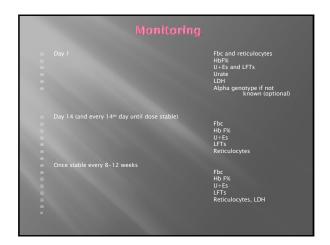
Exclusions and requirements

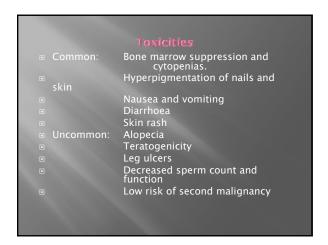
- Discuss the possible risks of infertility with male patients and offer sperm count and banking.

If any of the above problems with FBC encountered, stop hydroxycarbamide, until full blood count has recovered. Restart at 2.5mg/kg (or 1 capsule – 500mg) lower. This is the maximum tolerated dose (MTD)

- If there is a significant rise in Hb (>11g/dl in HbSS) stop the hydroxycarbamide and consider venesection
- If there is a downwards trend in FBC parameters, increase frequency of monitoring
- Use with caution in renal & hepatic impairment: start at a lower dose and increment more cautiously
- If Creatinine Clearance < 60 ml/min, commence at 50% dose (7.5 mg/kg)

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Dase modifications

Haematological Toxicity

- Neutrophils $\geq 1.5 \times 10^9/L$ & Platelets $\geq 80 \times 10^9/L$: 100% dose
- Neutrophils < 1.5 x 10⁹/L or Platelets <80 x 10⁹/L: Stop treatment and recheck FBC until N>1.5 and Plt >80. Restart treatment at 2.5mg/kg or 500mg daily lower.

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