Perioperative Iron Deficiency Management

Objective

- To identify and treat iron deficiency anaemia in patients preoperatively, especially in those patients at risk of transfusion due to blood loss.
- To identify iron deficiency, even in the absence of anaemia
- To ensure patients with iron deficiency are identified for further follow up by General Practitioners post operatively.

All Patients

- A recent **full blood count** should be available on all patients at risk of anaemia (fertile women and all patients over 60, plus on the basis of patient history)
- **Iron studies** should be performed on all anaemic patients, patients having major surgery where blood loss may require transfusion, and on other patients on the basis of history or results of other investigations.
- **Vitamin B12 and Folate** assay should be performed on all anaemic patients, and others on the basis of history.

Diagnosis

- Iron deficiency anaemia is shown by hypochromic microcytic anaemia (MCV < 80, MCH <27), however this is a late sign of iron deficiency.
- Functional iron deficit is suggested by ferritin <100. Severe iron deficiency is associated with ferritin < 30.
- Anaemia of Chronic Disease (often normocytic) may be indicated by history and if CRP is raised; these patients may still benefit if there is functional iron deficit.

Treatment

- If time is available preoperatively, oral iron may be considered, however there is often low patient compliance and the effect is slow. In general, oral therapy is not useful in the preoperative setting.
- Intravenous iron by iron polymaltose is effective for iron deficiency as a single dose, is acceptably safe, and is now approved to given by infusion more rapidly than in the past, making it reasonably cost effective.
- An HNELHD protocol is available for prescribing and administration of intravenous iron. For most adult patients, the appropriate dose will be 1 - 2 grams. (See simplified protocol)
- Iron infusions should be arranged through the Infusion Lounge, or if not available through the Intervention Suite.
- B12 and Folate (together) should be given in those patients where deficiency of these has been diagnosed. It should also be given to patients receiving intravenous iron therapy. (See simplified protocol)
- EPO should be actively considered in patients with anaemia associated with chronic renal disease, anaemia of chronic disease and in Jehovah’s Witnesses, particularly before blood loss surgery. If thought appropriate, EPO should be given after discussion with haematology.

**ALL PATIENTS DIAGNOSED WITH IRON DEFICIENCY ANAEMIA SHOULD BE NOTIFIED TO THEIR GP AND ADVISED TO SEEK APPROPRIATE FOLLOW UP**
Simplified Iron Infusion Regime

Required dose can be calculated using the details protocol

For most adult patients with established deficiency, at least 1 Gram will be required. This has become the ‘standard dose’ in JHH

Infusion is prescribed as stat dose on a normal medication chart:-

‘Iron Polymaltose 1gram in 300mls Normal Saline infusion using rapid protocol’

Infusions are given in either the infusion lounge or in recovery in the intervention suite.

Patients must currently be booked in using a standard RFA under the admitting surgeons team.