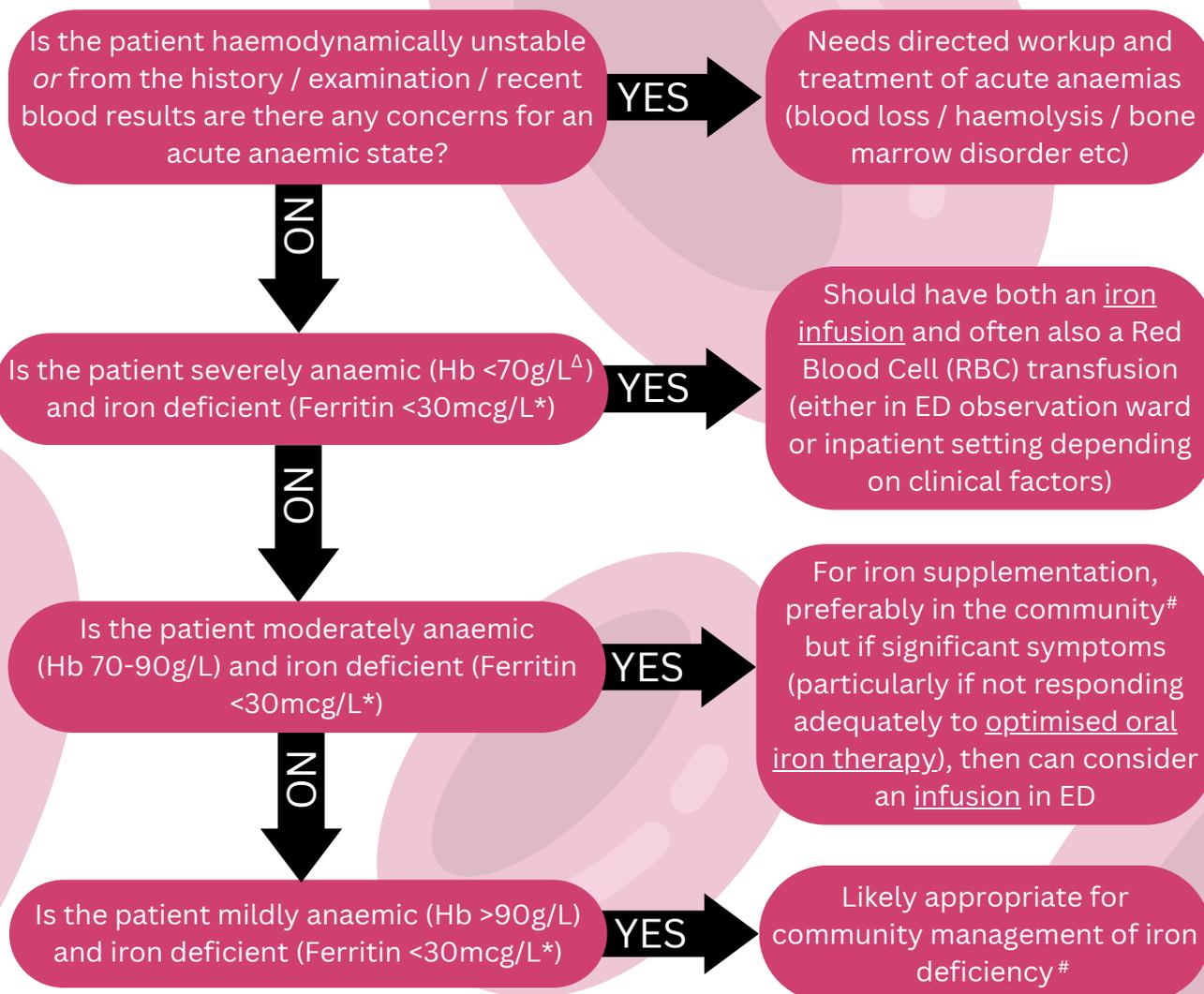


SCGH ED Iron Deficiency Guideline



* Rarely may see iron deficiency with Ferritin of 30-100mcg/L in the presence of a systemic inflammatory process; this will usually also be supported by a low Transferrin Saturation [$<20\%$] and low Mean Cell Volume [MCV $<80\text{fL}$] on Full Blood Count.

First line therapy for iron deficiency should almost always be oral iron. If this is not tolerated due to side effects (or malabsorption states limit the effect) then iron infusions can be organised by GPs. Haemoglobin in those given either oral or IV iron will usually start to rise after 1-2 weeks; increasing by $\sim 20\text{g/L}$ every 3 weeks and often normalising in 6-10 weeks. All patients with iron deficiency should also be reviewed by their GP to ensure appropriate investigation of underlying cause and treatment of this where appropriate (eg endoscopy for GI bleed or use of TXA / contraceptive pills / hormonal IUD for menorrhagia)

Δ Some younger patients with chronic anaemia may tolerate a Hb of 60-70g/L with relatively mild symptoms. Such patients may be appropriate for an iron infusion alone (without RBC transfusion). Note: the iron content of a RBC transfusion alone is relatively small and should never be used in place of iron when treating iron deficiency anaemia

Oral Iron Supplementation

- Dietary sources of iron may be adequate for prevention of deficiency but are usually inadequate for acute treatment of iron deficiency anaemia.
- Iron tablets come in multiple formulations but generally aim for 100-200mg *elemental* iron once daily for iron deficiency anaemia.
- Oral iron supplementation should usually be given for at least 3-6 months to both correct the anaemia and replenish iron stores.
- Absorption is enhanced by administering iron at least 1hr before or 2hr after food and avoiding co-administration with antacids or calcium supplements.
- Oral iron tablets can cause constipation, nausea, a metallic taste and dark discolouration of bowel motions. These effects are usually mild and shouldn't routinely require cessation of therapy.
 - If GI side effects are limiting compliance consider dosing every second day (takes advantage of hepcidin down-regulation), halving the dose or adding a laxative.
- *Note:* Iron may impair the absorption of Levothyroxine, Mycophenolate, Penicillamine, Fluoroquinolones, Tetracyclines, Bisphosphonates and some Parkinson's medications
 - If possible separate the administration of oral iron and these tablets by at least several hours

Examples of oral iron formulations available in Australia

| Name | Appearance | Formulation | Elemental Iron Content |
|------------------|---|---|------------------------|
| Ferro-Liquid |  | Ferrous Sulphate Oral Solution | 30mg/5mL |
| Ferro-f-tab |  | Ferrous Fumarate 310mg Folic acid 350mcg | 100mg |
| Maltofer tablets |  | Iron Polymaltose 370mg (absorption not impaired by food, but may result in slower clinical response than other formulations) | 100mg |
| Ferro-Grad C |  | Ferrous Sulphate 325mg Ascorbic Acid 500mg Modified Release | 105mg |

IV iron infusions in the community

- EDs should never be a place for routine iron infusions. Large numbers of GPs, community iron clinics and pathology services can provide iron infusions in a supervised environment - for a list of providers, see [IV Iron Clinics on HealthPathways WA](#)
- If patients are unable to afford such clinics (typically comes with a charge of \$40 for the medication and ~\$100 for the infusion process), they can be referred to Silverchain (requires a phone-call & faxed referral) who can provide this service at their Kingsley & Maddington clinics, fully Medicare subsidised.

IV iron infusion formulations at SCGH

- If an IV iron infusion is being administered in ED, patients should be appropriately counselled about the risks of skin staining (which may be permanent), non-specific infusion reactions (may include headache / flushing / nausea / dizziness / myalgias) and allergic reactions (though anaphylaxis is quite rare).
- In general, patients who are planned for expedited discharge from ED post-infusion may be given Iron Carboxymaltose (which is more expensive but can be very rapidly infused), whereas those being admitted to hospital should be given Iron Polymaltose which runs over a few hours. *See separate guideline for specific protocol / dosing / administration / contraindications.*
- Repeat FBC / Iron studies should be rechecked with the GP ~6 weeks after the iron infusion to monitor response.

| Intravenous Iron | Availability | Formulary Restrictions |
|-------------------------------------|-----------------------|--|
| Iron POLYmaltose complex (Ferrosig) | 1g/20mL 500mg/10mL | Unrestricted |
| Ferric CARBOXYmaltose (Ferinject) | 500mg/10mL | Only for use in patients with a documented hypersensitivity to POLYmaltose, or inpatients in G75, MAU, ED or SSU who are for urgent discharge. |