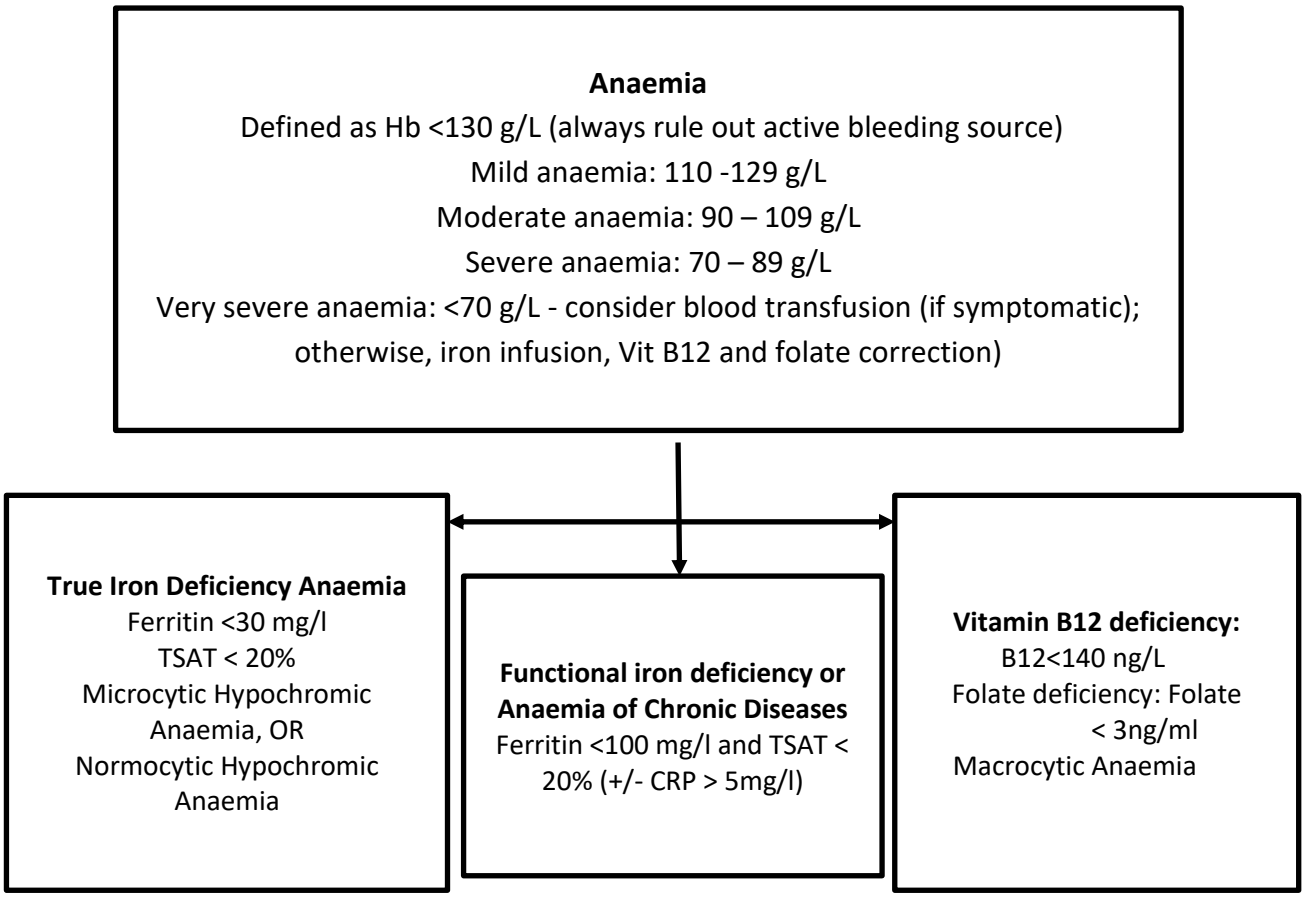
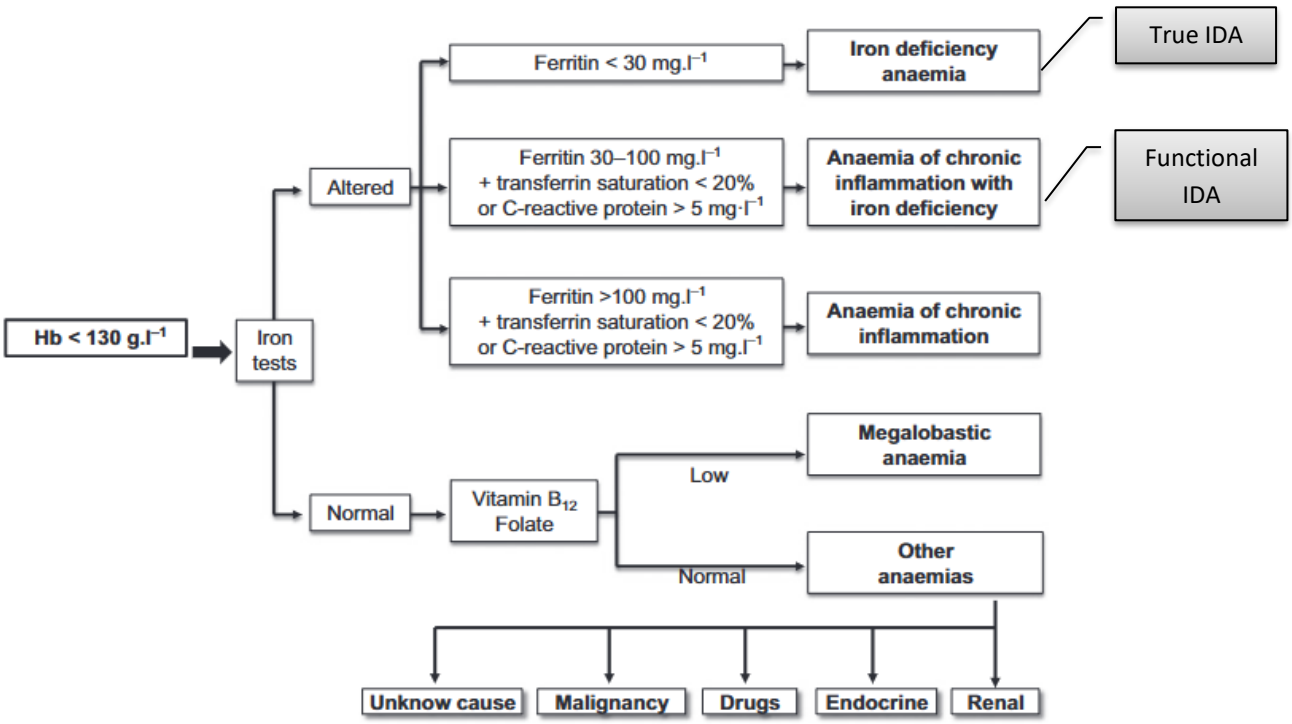
Management of Anaemia in Oncology and Onco-Surgery Patients

This policy aims to provide the clinical governance guidelines in relation to managing Anaemia in Oncology primarily those being assessed at Outpatients, Admissions and Pre-assessment Units (APU).

The patients' haematinics will be checked in first outpatient appointment at RMH.

This includes FBC, Serum Ferritin, Iron panel (transferrin, transferrin saturation or TSAT, Iron), CRP, Vit B12, Folate and Vit D (accept results up to previous 3 months)





Oral Iron

- Beneficial in only patients with mild anaemia with no signs of inflammation
- If surgery is > 6 weeks
- Only if orally tolerated/indicated
- Ferrous Sulphate or Ferrous

Intravenous Iron

- Intravenous iron should be used as first line treatment in the following conditions

1. All moderate to severe anaemia with Iron deficiency
2. When oral iron ineffective or intolerance
3. When planned surgery is in <6 weeks

- Prescribed along with PRN oral Chlorpheniramine and IV Hydrocortisone

Monofer® (Ferric Derisomaltose 100mg/ml)

- Ideally be used for iron naive patients
- Administered intravenously with or without an infusion pump. Single dose diluted to 100ml in sterile 0.9% Normal Saline:

-500mg over 30 mins if BW <50kg

Ferinject® (Ferric carboxymaltose 50mg/ml)

- Dose 20 mg/kg body weight diluted in up to 100ml of sterile 0.9% Normal Saline.
- Maximum single dose of 1000mg
- If dose required >1000mg, give initial dose of 1000mg, followed by remainder of dose after 1 week. Top-up dose max 500 mg.
- Administered intravenously with or without an infusion pump over 30

Adverse Effects of IV Iron

Uncommon (1:100–1:1,000):

- *Angioedema*
- *Allergic Reactions:* appear within minutes; breathlessness, flushing, chest/back pain, hypotension.
- **Rare (1:1,000–1:10,000):**
- Injection site reaction, chest pain, hoarseness, blurred vision, dizziness, seizures, sweating, nausea, cramps, headache.
- **If Acute Reaction Occurs:**
  5. **Fish-bane type reaction: Most common (not anaphylaxis)**
  6. **Symptoms: Palpitations, facial flushing, sharp pain in abdomen/back/chest pain. Check HR, BP, SpO2.**
  7. **Most reactions are mild; restart after 5 minutes if symptoms resolve.**
  8. If symptoms severe and do not resolve: **Stop**
  9. Check Consciousness, HR, BP, SpO2 → **call for help/'2222'** if severe.
  10. **Support ABC**; treat like anaphylaxis

Infiltration & extravasation:

Signs

- Discomfort or tenderness, swelling at/around site, Taut or cool/blanched skin, Fluid leakage, Numbness/tingling, Burning/stinging pain, Redness, Blistering, Necrosis or ulceration
- **Immediate Management**

1. Stop infusion (do not re-site) & Remove cannula
2. Inform & apologise to patient
3. Assess extent/severity
4. Apply cool pack, elevate limb, Offer pain relief
5. Photograph iron staining (if present) & Contact specialist (e.g. Plastics, Derm)

Contraindications to IV Iron

- True iron allergy.
- Iron overload or disturbances in utilisation of iron
- History of symptomatic severe asthma, allergic eczema or other atopic allergy
- Active infection
- Decompensated liver disease
- Rheumatoid arthritis with evidence of active inflammation
- polycythaemia rubra vera
- AVOID IV IRON If

- Within 24 hours of cardiotoxic chemotherapy
- Within 3 weeks of receiving full dose IV iron infusion

B12 Deficiency

- Give dietary advice + Cyanocobalamin 50–150 mcg orally daily, *or*
- Refer to GP to start Hydroxocobalamin 1mg IM
- Continue with GP and monitor.
- Recheck B12 levels every 5–6 months.

Folate Deficiency

- Prescribe oral folic acid 5 mg daily for 2 months or advice can be stated in letter to GP
- Recheck levels after 5-6 months

Post operative Anaemia Management

Check post-op Hb

Check pre-op iron panel and vitamin levels

Check intraoperative blood loss or any blood transfusions

Consider iv iron/ oral iron/ vitamin supplementation prior to discharge

Erythropoietin Stimulating Agent (ESA) Therapy for Chemotherapy Patients

- Not recommended for patients with cancer who are not receiving chemotherapy - associated with increased risk of thrombo-embolic events
- ESA recommended by NICE:

Epoetin Alpha (Eprex 30,000IU in 0.75ml)
Epoetin Beta (Neorecormon 30,000IU in 0.6ml)
Both are prefilled syringes
-Switching brands is not recommended on the occasion that the first brand is not effective - discontinuation of ESA is recommended.

- Clinical Treating Team should liaise with Haematologist for ESA management and dosing

- Iron supplementation should be done whilst on ESA
- If inadequate response to ESA in 4 weeks, re-assess iron status and plan IV iron infusion if needed.
- Do not give IV iron if ferritin is >800 Nano gram/ml
- **Discontinue ESA**
  1. 4 weeks after cessation of Chemo
  2. If blood transfusion requirements have not reduced 8 weeks after starting ESA
  3. Uncontrolled hypertension
  4. Hb >120 gm/L
  5. < 6 Week of scheduled major Surgery

❖ All patients with Haemato-oncological diseases (leukaemia, myeloma, etc) and Sickle cell disease, Thalassemia and Haemolytic Anaemias should be discussed with the Haematology Team for anaemia management.

References:

1. *Aapro M, Beguin Y, Bokemeyer C, et al; ESMO Guidelines Committee. Management of anaemia and iron deficiency in patients with cancer: ESMO Clinical Practice Guidelines. Ann Oncol. 2018 Oct 1;29(Suppl 4):iv96-iv110.*
2. *Muñoz M, Acheson AG, Auerbach M, Besser M, et al. International consensus statement on the peri-operative management of anaemia and iron deficiency. Anaesthesia. 2017 Feb;72(2):233-247.*

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