IRON DEFICIENCY ANAEMIA IN PREGNANCY 2.0

Definition of anaemia

- Hb < 11g/dl in first trimester and third trimester, or ≤ 10.5g/dl in second trimester

Normal laboratory ranges

  - Ferritin 20-150ng/ml
  - Folate 3-19ng/ml
  - B12 250-1200g/ml
  - MCV 80-100um^3
- Usually asymptomatic unless Hb <6-7g/dl
- Most common is iron deficiency anaemia

Risk factors

- Previously diagnosed iron deficiency
- Short inter-pregnancy interval (<6 months)
- Multiple gestations
- Low socio-economic status
- Smoking
- Malnutrition
- Vegetarians
- PICA (Eating disorder that involves eating items that are typically thought of as food but has no nutritional value. e.g. hair, dirt, paint chips)
- History of heavy menses
- Gastrointestinal tract disease affecting absorption
- Parasitic infections – hookworm, bilharzia and malaria
- High or low BMI

Complications

- Low birth weight
- Preterm birth
- Maternal cardiovascular compromise
- Postpartum haemorrhage
- Possible need for transfusion

- Associated with postpartum depression
- Poor mental and psychomotor performance testing in offspring

Management of iron deficiency anaemia

- **Prevention:** Iron supplementation (30 mg daily)
- Hb or FBC at booking and at 28 weeks
- Diet advice to maximise iron intake and absorption
- Iron deficiency anaemia – 100–200mg elemental iron orally daily
    - Consider 100 – 200 mg on alternate days (better absorption and reduced gastro-intestinal side-effects)
    - If anaemic repeat Hb in 2 weeks. Once Hb in normal range continue supplementation for 3 months or at least until 6 weeks postpartum

- If Hb <7g/dl after 37 weeks or symptomatic – consider transfusion of red packed cells and continue oral iron supplementation
- If patient in second trimester or no response to oral iron, consider parenteral iron (Cosmofer®, Venofer®, Ferrinject®, Monofer®); parenteral route also preferred in patients with inflammatory bowel disease and previous bariatric surgery
- Aim target Hb > 11g/dl

Anaemia at delivery

- If anaemic at delivery (Hb < 9.5g/dl)
    - IVI access
    - Type/screen red packed cells
    - Active management of third stage of labour
    - Postpartum transfusion if risk of bleeding, cardiac compromise or symptoms requiring urgent attention. Alternatively consider oral or IVI iron.
- Check post-natal Hb if postpartum haemorrhage >500ml, uncorrected anaemia antenatally or symptomatic.

References

1. Adam, S. & Soma-Pillay, P. 2018. Obstetric Essentials. 3rd Edition. University of Pretoria

Authorship

These guidelines were drafted by a clinical team from Mediclinic and were reviewed by a panel of experts from SASOG and the BetterObs clinical team in 2019 and revised by the scientific subcommittee of BetterObs in 2022. All attempts were made to ensure that the guidance provided is clinically safe, locally relevant and in line with current global and South African best practise. Succinctness was considered more important than comprehensiveness.

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