

## GUIDELINES ON PREVENTION AND MANAGEMENT OF ANAEMIA IN PREGNANCY:

### 1. Routine Haemoglobin assessment should be done at booking

If normal to be repeated during mid-trimester (20-24/52) and around 36/52

### 2. Iron Supplements in pregnancy

- Tablet folic acid 0.5mg od in first trimester (13 weeks)
- Tablet ferrous fumarate 200-400 mg od + folic acid 0.5mg od (or)
- Tablet Obimin 1 tablet /day

### 3. If Haemoglobin is < 11g%

a. Low MCV and MCH (result available on the same day), no history/family history of haemoglobinopathy and clinically no apparent medical illness.

- Empirically treat as iron deficiency anaemia
- Investigation : full blood picture (FBP)
- Tab ferrous fumarate 400mg bd + Folic acid 500mcg od
- Recheck Hb after 2-4 weeks (Hb expected to rise by 0.3g-1.0g per week)
- If Hb rises as expected continue the same for the rest of the pregnancy
- If Hb do not rise
  - o Ask about compliance and review full blood picture
  - o If the patient is compliant, perform the following investigation:
    - Serum ferritin
    - Hb electrophoresis
    - Stool for ova and cyst
    - Stool for occult blood
    - BFMP if patient coming from an endemic area

b. If MCV and MCH not available on the same day (i.e. in KD or small MCH/KK), no history/family history of haemoglobinopathy and clinically no medical illnesses.

- Empirically treat as iron deficiency anaemia
- Investigation : full blood picture(FBP)
- Tab ferrous fumarate 400mg bd + Folic acid 500mcg od
- Recheck Hb after 2-4 weeks (Hb expected to rise by 0.3g-1.0g per week)
- If FBP shows microcytic hypochromic anaemia (iron deficiency)
  - o If Hb rises as expected continue the same treatment for the rest of the pregnancy
  - o If not a compliance problem, perform following investigation:
    - Serum ferritin
    - Hb electrophoresis
    - Stool for ova and cyst
    - Stool for occult blood
    - BFMP if patient coming from an endemic area
- If MCV and MCH is normal or high
  - o Refer combined clinic/ antenatal specialist clinic for further assessment and management

#### 4. Categorization of women using haemoglobin and serum ferritin

	Serum ferritin (µg/l)	Haemoglobin (g/dl)	Diagnosis
1	>12	>11	Normal, IDA excluded
2	<12	>11	Storage iron depletion
3	<12	<11	Iron deficiency anaemia
4	>12	<11	Other causes of anaemia

#### 5. Women with IDA and unable to tolerate or non-compliance to Ferrous Fumarate

Options Include:

- a. Change to different preparation ( i.e Tab Iberet 1 tablet BD)
- b. Parenteral iron therapy
- c. Blood transfusion

#### 6. Elemental iron doses:

For prophylaxis against IDA, 30-100 mg /day of elemental iron is enough, but for the purpose of treatment at least 180 mg/day of elemental iron is required.

Amount of elemental iron in different preparations

Preparation	Elemental iron (mg/tablet)
Ferrous fumarate (200mg)	60 mg
Iberet	105 mg of ferrous sulphate
Obimin/Obimin plus/ New obimin	30 mg of ferrous fumarate/ferrous sulphate

#### 7. Parenteral iron therapy:

It has no advantage over oral iron if the latter is well tolerated. It is only indicated in patients who cannot absorb iron, non-compliant or developed serious side effect with oral iron.

Preparation: Iron Dextran (Imferon) - Intramuscularly

Dose: Elemental iron needed (mg) = (Desired HB- Patient's Hb) x Weight (kg) x 2.21 + 1000

Example: (60 kg patient with Hb 7.0g/dl)

Elemental iron needed= (10-7) x 60 x 2.21 + 1000 =1398 mg

#### Caution:

There is small risk of hypersensitivity towards IM Imferon, it should only be given in a hospital. An initial test dose of 50 mg of IM Imferon is given followed by 100 mg daily until the total dose met.

**8. Haemoglobin < 11g/dl in patient known to be  $\alpha$  or  $\beta$ -thalassemia trait:**

- a. Prescribe folic acid 5 mg daily
- b. Check serum ferritin
  - if serum ferritin < 12 $\mu$ g/l, to treat as concurrent IDA

**9. Indications for blood transfusion during antenatal period:**

- Hb < 6 g/dl
- Hb < 8 g/dl and POA > 36 weeks
- Moderate and severe anaemia in patient with known heart disease or severe respiratory disease
- Symptomatic anaemia
- Placenta Praevia with Hb < 10g/dl
- Patient who develop severe side effect to both oral and parenteral iron therapy

**10. Anaemic patient in labour:**

- To Transfuse if Hb < 8 g/dl and transfer to the hospital with specialist if high risk patient.
- High risk patient with Hb between 8-10g/dl require GXM of at least 2 pint of blood and transfer to the hospital with specialist if possible.
- Patient with risk of PPH and anaemic is best delivered in the hospital with specialist.
- In the event of advance labour where transfer is not possible specialist input is required regarding the need for transfusion. GXM of at least 2 pint of blood must be available for such patient.
- Prophylactically, can start intravenous infusion of Pitocin (20 units in 500mls of Hartman's saline) to run over 4 to 6 hours after the delivery of the baby. In grand multiparas start on 40 units Pitocin in 500mls Hartman's infusion over 4 to 6 hours.
- Closer maternal monitoring immediate postnatal period to be able to diagnose PPH early

Hb > 11 g/dl

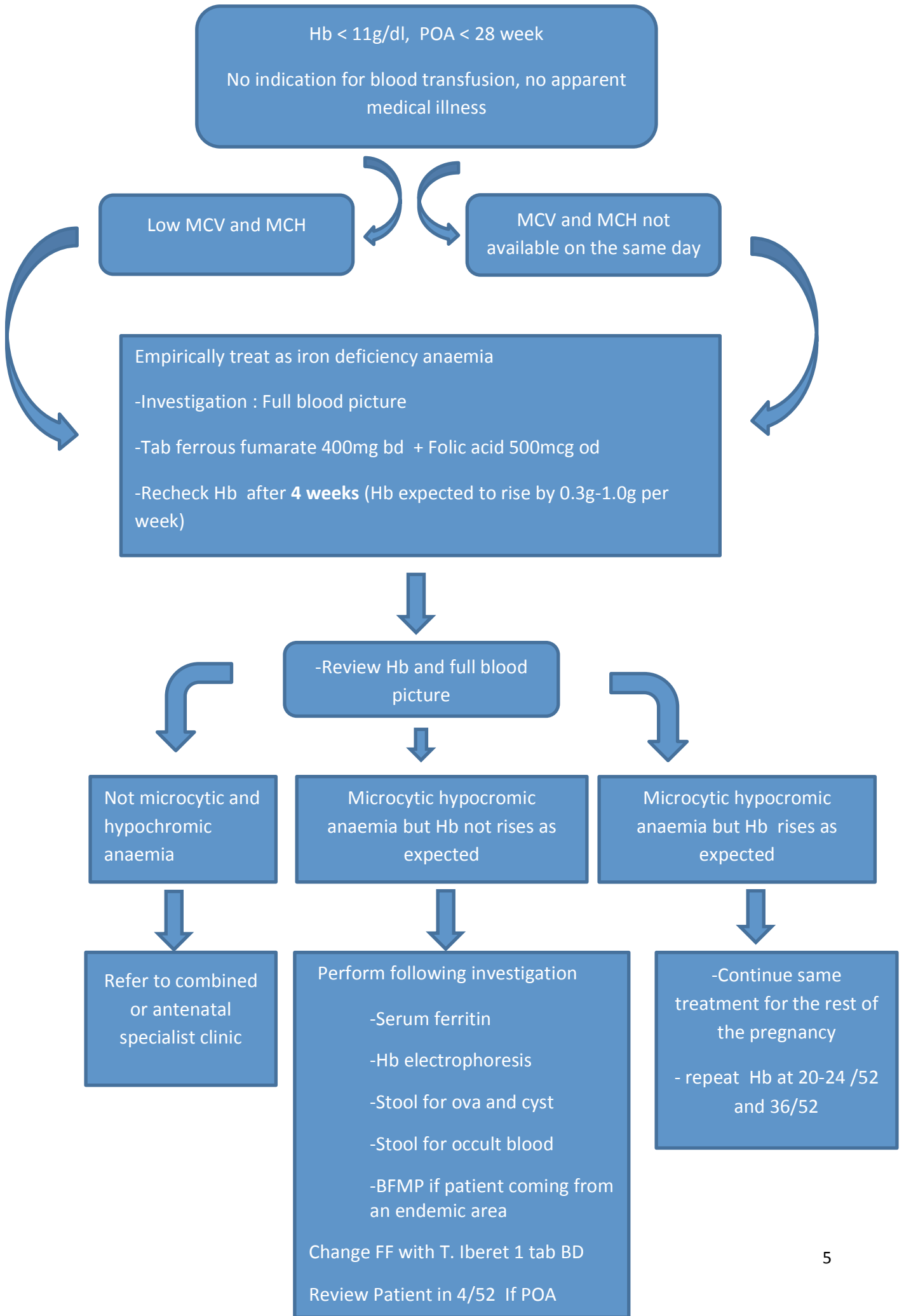


Routine Hb Check at 20-24/52 and 36/52

Tab Ferrous fumarate 200mg daily or

Tab Obimin 1 tablet daily

Tab Folic acid 5 mg daily





Diagnosis: Not IDA

- Manage accordingly
- Refer to Combined/Specialist antenatal clinic



Diagnosis: IDA but Hb did not rise as expected

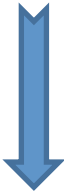
- Non compliant
- Unable to tolerate oral preparation

Deworming/treat malaria/address issue of occult blood loss if indicated

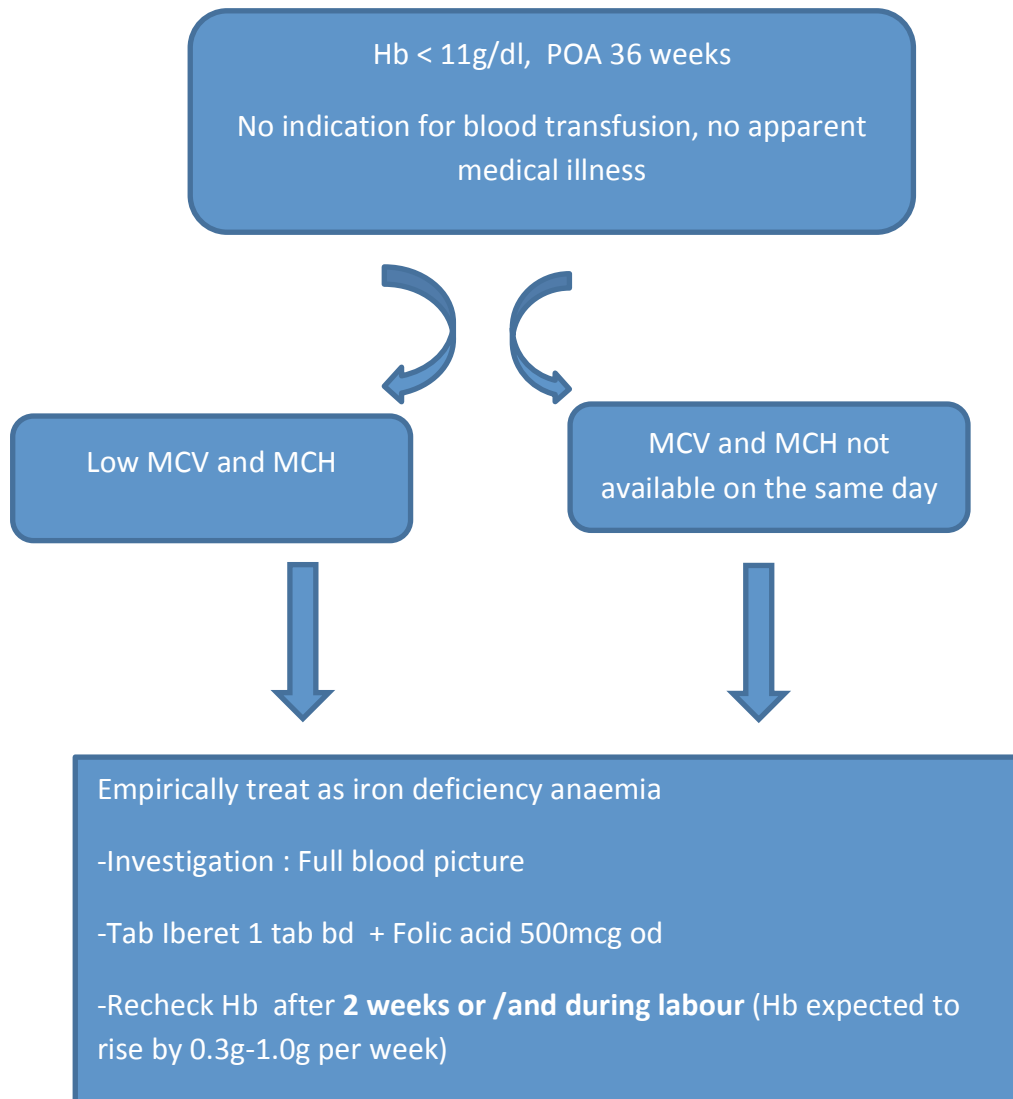


Parenteral iron therapy ( IM Imferon)

Hb < 11g/dl, POA 28-36 weeks  
No indication for blood transfusion, no apparent  
medical illness



To follow above flow chart but follow-up every  
2/52 instead of 4 weeks



Prepared by:

Dr. Rafaie Amin  
O&G Specialist (Maternal Fetal Specialist)  
Department of Obstetrics & Gynaecology  
SGH  
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