

# RTC Objectives – Maternal Anaemia

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## UK guidelines on the management of iron deficiency in pregnancy

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*British Journal of Haematology*, 2020, **188**, 819–830

- Anaemia defined as Hb: -
  - < 110 in first trimester
  - <105 in second/third trimester
  - <100 postpartum
- IDA in pregnancy is common and assoc. with ↑ maternal/fetal morbidity and mortality
- ID most common cause of anaemia in pregnancy, risk should not be considered in all pregnancies
- Serum ferritin <30 indicative of iron deficiency
- Routine screening with serum ferritin not currently recommended

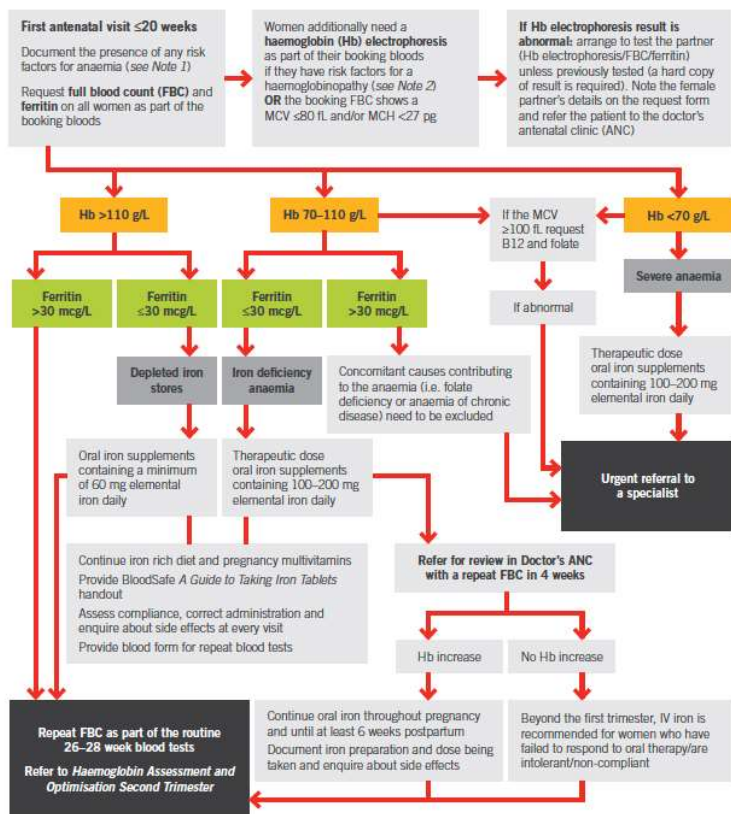
Revisiting WHO haemoglobin thresholds to define anaemia  
in clinical medicine and public health

*The Lancet Haematology*, 5, e60–e62.

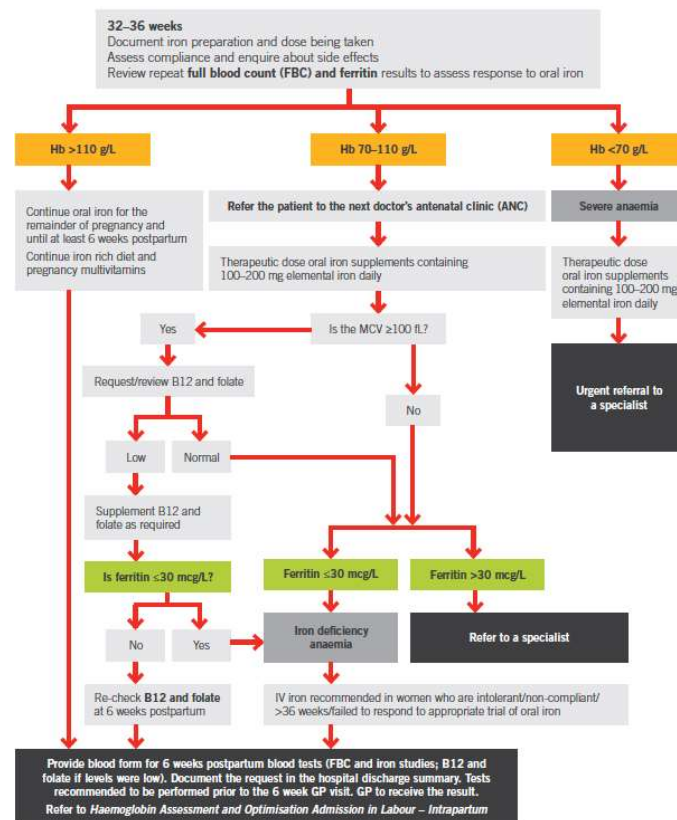
- Current WHO definitions of anaemia from 1968 based on data from non-pregnant, predominately white populations from Europe/N. America
- WHO reviewing the use and interpretation of HB thresholds currently

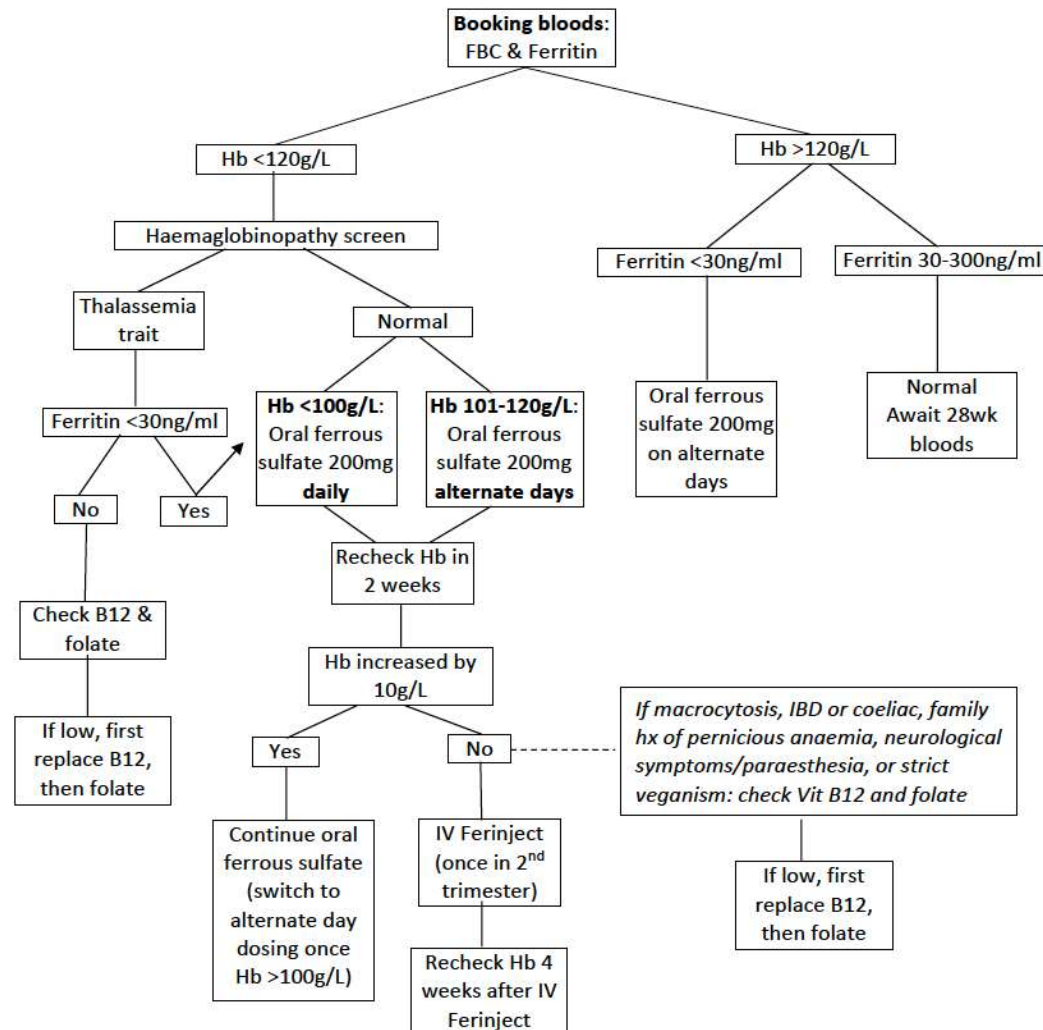
# HAEMOGLOBIN ASSESSMENT AND OPTIMISATION ACTION PLAN

## FIRST TRIMESTER



## THIRD TRIMESTER






# Study on prevalence of anaemia in 1<sup>st</sup> trimester of pregnancy.

- Study in maternity population booked at Derriford Hospital
- Population low incidence of haemoglobinopathy
- 1715 pregnancies studied Nov 2018 –May 2019
- Hb estimate at booking prior to 13 weeks assessed.

## Results – prevalence

- 148 (8.6%) women had Hb <120g/L
- 25 (1.5%) women had Hb <110g/L
- Median Hb was 132g/L, range 90-160g/L
- 95% lower limit confidence level was 116g/L
- Therefore 120g/L set as defining threshold for anaemia

# Results - Outcomes

- Outcomes assessed in pregnancies in November, December (2018) and March (2019) where Hb < 120g/L at booking = 90/1001  
     Incidence of anaemia = 9%.
- Average MCV and MCH were normal in anaemic mothers.
- Only 16/90 women has serum ferritin checked.
- 13/16 had SF <30mcg/l
- 4 pregnancies associated with blood transfusion.



# Suggestions

1. Universal screening for iron deficiency in 1<sup>st</sup> trimester and treating cases with oral iron.
  - Women with anaemia (Hb <120g/l) or low iron stores (SF <30mcg/l) at booking start low dose oral iron.
2. Once started on oral iron there is no requirement to monitor the effect until repeat testing at 28 weeks unless Hb < 100g/l
3. Only women with persistent iron deficiency despite oral iron should be considered for IV iron.
  - IDA >34/40 and Hb <70g/l would be strong indication for IV iron.
  - Considered for cases with Hb <100g/L