North Central London Integrated Care Bo

Adult Iron deficiency Primary Care Clinical Pathway

Latest Version	Final version August 2022	
Previous Versions	August 2018	
Review Date	August 2025	
Approving Body	NCL ICB CAG	
NCL-Wide / Borough(s)	NCL-Wide	
Author(s)	Dr. Nick Dattani, Dr Folusha Oluwajana, Dr Sheena Mankodi, Dr Edward Seward	

Pi "Must do" actions for GP's

Key

For any queries regarding the content of this document e-mail: nclicb.pathways@nhs.net

		B Recommendations for Primary Care
		R Red flag / urgent referral
		O Routine referral
1.0 (G)	2.0 (G)	P Public health intervention
 1.0 (G) Differential diagnosis of microcytic anaemia Iron deficiency anaemia Haemoglobinopathies e.g. thalassaemia Sideroblastic anaemias Anaemia of chronic disease Lead poisoning (rare) (Thalassaemia and sideroblastic anaemia associated with ↑ iron and ferritin and ↓ total iron binding capacity (TIBC). Thalassaemia trait is associated with ↓ mean corpuscular volume (MCV), mean cell haemoglobin (MCH) and mean cell haemoglobin concentration (MCHC) - often very low for the degree of anaemia) 	 2.0 (G) Definition of anaemia In men - Hb below 130 g/L In non-pregnant women - Hb below 120 g/L Definition of iron deficiency Low serum ferritin (<15ug/l is indicative of absent iron stores; <30 ug/L are generally indicative of low body iron stores. Interpretation difficult if co-existing inflammatory conditions but is rare if ferritin >150ug/l) Red cell microcytosis (MCV) < 80fl. Note while the probability of iron deficiency in anaemic people increases with decreasing MCV, no specific cut-off point can be used 	Public nearth intervention G Audio-visual aids for patients and GP Click icon for clinical evidence Right-click to use hyperlink Note: Alpha-numeric step references are to aid printing in black & white and colour blindness Investigations must be within 6 months of date of referral
	 Other red blood cell changes associated with iron deficiency include: Hypochromia (reduced MCH) in the absence of chronic disease or haemoglobinopathy Increased percentage of hypochromic red cells. Anisocytosis (variation in the size of 	

3.0 (B)

Poikilocytosis (presence of irregular

Any GI bleeding: Melaena, haematemesis, rectal bleeding, haemoptysis

History

red blood cells)

shaped red blood cells)

Other sources of bleeding: Gynaecological, epistaxis, urinary or easy / heavy bruising

History of weight loss, abdominal pain, travel history and family history of iron deficiency, bleeding, haematological or gastrointestinal disorders and colorectal cancer

Consider: dietary intake of iron, blood donation, exclude pregnancy, alcohol consumption, medication history (NSAIDs, Aspirin, SSRIs, clopidogrel, steroids) or malabsorption disorders e.g. GI surgery e.g. obesity surgery, gastrectomy

Any symptoms from anaemia -Fatigue, shortness of breath, chest pains, palpitations, headache, tinnitus, taste disturbance, pruritus, pica, sore tongue, dysphagia, impairment of body temperature regulation (in pregnant women).

Symptoms of iron deficiency without anaemia-fatigue, hair loss, lack of concentration, and irritability

4.0 (Pi) Admit if unstable cardiovascularly e.g. postural drop

5.0 (B)

Other sources of bleeding:

6.0 (B)

- ≥ 40 years with jaundice or unexplained weight loss and abdominal
- pain < 50 years with rectal bleeding and any of the following unexplained symptoms:
- abdominal pain, change in bowel habit, weight loss or iron deficiency anaemia ≥ 50 years with unexplained rectal
- bleeding
- ≥ 60 years with iron-deficiency anaemia or changes in their bowel habit or weight loss and any of the following: diarrhoea, back pain, abdominal pain, nausea, vomiting, constipation or new onset diabetes
- Any age where tests show occult blood in their faeces
- Any age with rectal or abdominal mass or unexplained anal mass or anal ulceration
- Ascites
- New iron deficiency without an obvious cause
- Raised / positive FIT test suggestive of cancer
- Iron deficiency anaemia with dyspepsia Upper GI bleeding-melaena / haematemesis

Consider referral to MDC if raised platelets (see abnormal full blood count primary care clinical pathway)

4.1 (R)

Examination

Note: There may be an absence of signs, even if the person has severe anaemia

Findings may include: pallor, atrophic glossitis, angular cheilosis, nail changes (longitudinal ridging and koilonychias), dry and rough skin, dry and damaged hair, diffuse and moderate alopecia.

In severe anaemia, symptoms may include tachycardia, murmurs, cardiac enlargement, and heart failure

Exclude abdominal mass, organomegaly, lymphadenopathy or any other features of intra-abdominal disease If rectal bleeding +/- tenesmus perform PR

examination If relevant cardiovascular (CVS) /chest

symptoms exclude heart failure (HF) Gynae exam if relevant

Investigations

FBC, ferritin, iron studies, CRP, coeliac screen, urine dipstick (1% will have renal malignancy)

Consider:

- Vitamin B12 and folate levels if: normocytic anaemia with a low or 0 normal ferritin level
 - an inadequate response to iron 0 supplements in proven iron deficiency anaemia and no reason for this (for example poor compliance) is apparent
- vitamin B12 or folate deficiency is 0 suspected (e.g. due to dietary deficiency, malabsorption, or lack of folate supplementation in pregnancy)
- Helicobacter pylori testing
- Haemoglobinopathy screening when appropriate
- If menorrhagia, clotting screen / TFT
- Consider Inflammatory markers: CRP, WBC and platelets if potentially spuriously affecting ferritin
- Quantitative faecal immunochemical tests (qFIT)
- Stool examination if relevant travel history

NOTE: Faecal occult blood test not recommended.

8.1 (B)

9.0 (B)

8.0 (Pi)

Iron deficiency anaemia suspected

Genitourinary 7.0 (G) Consider Advice and guidance

or refer to relevant speciality if underlying cause not manageable in primary care. Consider referral to haematology if underlying cause unknown 7.1 (0)

Escalate to 2WW if required e.g. Refer to gynaecology for postmenopausal bleeding Refer to urology people aged ≥ 45 years

- with:
- unexplained visible haematuria without urinary tract infection or visible haematuria that persists or
- recurs after successful treatment of urinary tract infection Refer to urology people aged \geq 60 years
- with:
- unexplained non-visible haematuria and either dysuria or a raised white cell count on a blood test

7.2 (R)

Consider Advice and guidance

11.0 (G)

10.0 (B) Iron Replacement (dietary changes alone are not sufficient to correct iron deficiency anaemia)

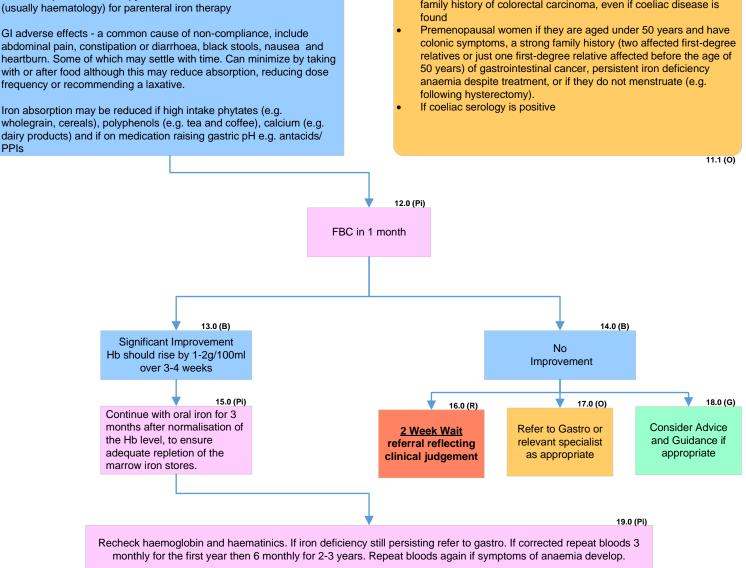
Treat whilst awaiting investigations or for therapeutic trial in pregnant women [1]

1st choice: Ferrous fumarate 322mg capsule (100mg elemental iron/ capsule) daily or ferrous fumarate 210mg tablets (68mg elemental iron / tablet) daily. Iron should be taken on an empty stomach. 2nd choice: Ferrous sulphate 200mg (65mg elemental iron / tablet) daily. Iron should be taken on an empty stomach.

Consider alternate day dosing in those with significant intolerance to oral iron replacement therapy. If unable to tolerate oral iron, refer

Refer to gastroenterology

- All men and postmenopausal women with iron deficiency anaemia unless they have overt non-
- gastrointestinal bleeding. Men with a haemoglobin (Hb) level less than 120 g/L and postmenopausal women with an Hb level less than 100 g/L should be investigated more urgently
- All people aged ≥ 50 years with marked anaemia, or a significant family history of colorectal carcinoma, even if coeliac disease is



https://cks.nice.org.uk/anaemia-iron-deficiency

British Gastroenterology Society iron deficiency guidance:

https://www.bsg.org.uk/wp-content/uploads/2011/05/lron-Deficiency-Aneamia-in-Adults-gutjnl-2021-325210.pdf

[1] Management of iron deficiency in pregnancy

The British Committee for Standards in Haematology guideline summary of key recommendations: https://onlinelibrary.wiley.com/doi/full/10.1111/j.1365-2141.2011.09012.x

Gynaecological **Epistaxis**