

Laboratory Testing for Full Blood Count- Anaemia

Authors

Ronan Desmond, Consultant Haematologist, Tallaght Hospital, Dublin 24, Ireland.

Date

Background

A full blood count (FBC) is commonly requested at a general check-up and when patients complain of non-specific symptoms. Abnormalities are often non-specific and may not necessarily reflect haematological disorders. Results must be interpreted with reference to the clinical picture and other pathology results.

Anaemia is defined as a haemoglobin of <13g/dl in an adult male or <11.5g/dl in an adult female. The patient's symptoms and initial FBC findings will influence both the urgency and direction of initial clinical investigation.

Scope

The aim of this guideline is to provide guidance to GPs on when to refer patients with abnormal FBCs. These guidelines apply to adult, non-pregnant patients.

Key recommendations

- The finding of abnormalities in more than one lineage may be more significant than in a single lineage and may suggest a bone marrow cause.
- It is often appropriate to monitor the FBC for progression over time rather than referring a patient based on one abnormal result.
- Always consider early referral when the patient is unwell.
- Uncomplicated B12 / folate deficiency does not require routine referral to haematology
- Iron deficiency should be referred to gastroenterology or gynaecology as appropriate.

Referral guidelines

When to consider referral to haematology

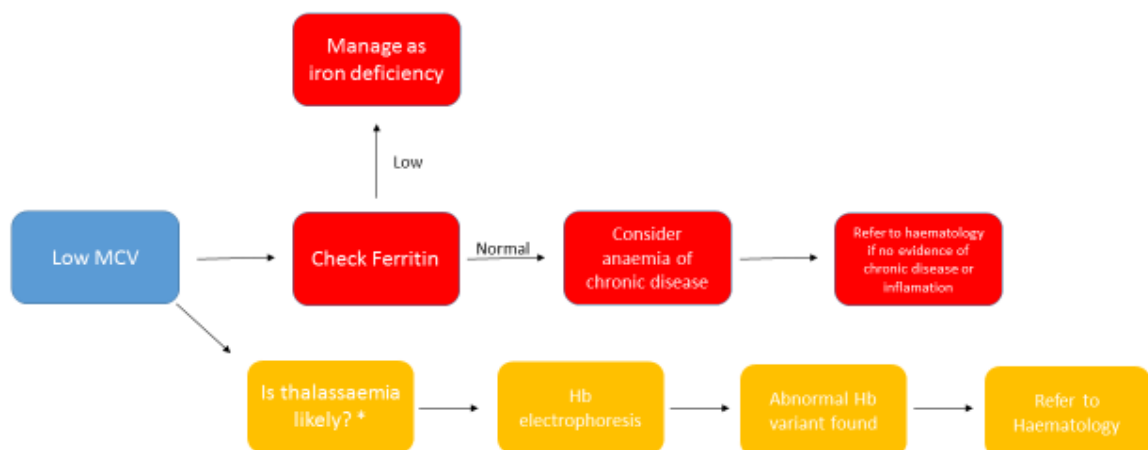
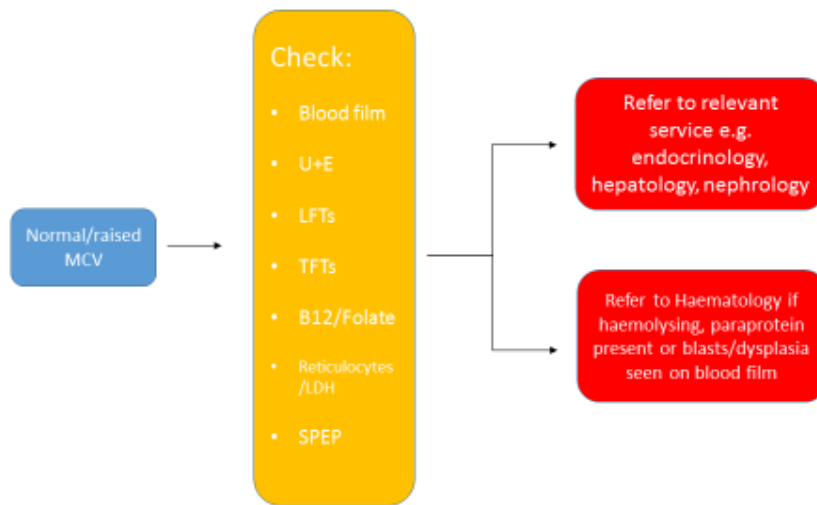
- Persistent unexplained anaemia
- Established iron deficiency showing sub-optimal response to oral iron therapy
- Established B12 deficiency of uncertain cause requiring further investigation

When to consider urgent referral to haematology

- Leucoerythroblastic anaemia (based on blood film report)
- Progressive *symptomatic* anaemia
- Anaemia in association with:
- Splenomegaly or lymphadenopathy or other cytopaenias

When to consider routine referral

- Persistent unexplained anaemia
- Established iron deficiency showing sub-optimal response to oral iron therapy
- Established B12 deficiency of uncertain cause requiring further investigation



* Based on ethnicity

Investigations to consider when urgent referral not deemed appropriate

- Blood film examination and reticulocyte count
- Ferritin, B12 and folate
- Immunoglobulins and protein electrophoresis

References

1. University of Leicester Empath referral guidelines
2. Basildon and Thurrock University Hospitals- Anaemia GP referral guidelines.