Macrocytosis

This can be present with or without anaemia.

Causes

- Artefact e.g. delay to analysis
- Alcohol and liver disease
- Vitamin B12 or folate deficiency
- Reticulocytosis-due to bleeding, haematinic replacement or haemolysis
- Medications especially hydroxycarbamide, methoxtrexate, metformin, chemotherapy, some anticonvulsants, anti-retrovirals.
- Pregnancy
- Thyroid dysfunction
- Myelodysplasia and aplastic anaemia – often associated with neutropenia and/or thrombocytopenia

History and examination

Suggest looking at the above causes and look for signs of liver disease. Review older blood tests. Ask about diet and malabsorption.

Suggested investigations

- Liver function tests , GGT
- Vitamin B12 and folate
- Blood film and reticulocytes

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Date published: September 24
Next Review: September 27

• Haemolysis screen (reticulocytes, blood film, DAT, LDH, haptoglobin) to be considered in primary care, if anaemic straight away, if normal Hb then if reticulocytes are elevated

• Pregnancy test

• TSH

Management

• Correct any secondary cause and consider repeating test.

• If haemolysis is suspected (raised bilirubin, LDH and reticulocytosis) then please discuss or refer

• If myelodysplasia is suspected (other cytopenias or blood film abnormalities) then please discuss or refer

• Please consider referral for macrocytic anaemia when the haemoglobin is persistently less than 110 g/L in men or less than 100 g/L in women and there are **no secondary causes**. For cases when the haemoglobin is still greater than 100 g/L a discussion via Advice and Guidance is appropriate especially if the patient is asymptomatic.

• If the MCV is high with no anaemia or other cytopenia and no cause is identified then these patients can be monitored in primary care every six to 12 months for the development of new cytopenias

• If patient has liver disease please discuss with hepatology

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