NHS
West Leicestershire Clinical Commissioning Group
Leicester City Clinical Commissioning Group
East Leicestershire and Rutland Clinical Commissioning Group
University Hospitals of Leicester NHS Trust

Quick Guide for General Practice

Ferritin and Reticulocyte Haemoglobin Content (CHr) testing for iron deficiency

Clinical Situation	Recommendation
Signs/symptoms of iron deficiency	• Haematological e.g. anaemia microcytic or normocytic anaemia +/- hypochromia or microcytosis without anaemia • Other e.g. angular stomatitis, glossitis, persistent mouth ulcers

Indications for testing	• Microcytosis (MCV <80 fL), hypochromia (MCH <27pg), normocytic anaemia, anaemia with normal/low reticulocyte count, anaemia with thrombocytosis/thrombocytopaenia (see https://www.leicestershospitals.nhs.uk/aboutus/departments-services/pathology/laboratory-haematology/uhl-haematology-referral-guidelines/)
	• Concerns regarding dietary iron intake, e.g. vegetarian, vegan
	• Concerns regarding malabsorption, e.g. coeliac disease, inflammatory bowel disease
	• Confirmed or suspected blood loss, e.g. melena, menorrhagia
	• Vitamin B12/Folate deficiency anaemia not responding to replacement therapy
	• *NB*:
	  ○ *CHr to be requested in place of ferritin in the setting of infection/inflammation*
	  ○ *CHr **NOT** to be used for thalassaemic patients*

Repeat testing	• Repeat testing of ferritin/CHr is not required to monitor response. Response monitored by FBC and reticulocyte count. • Repeat timescale depends on initial Hb and symptoms of the patient. In general, consider FBC with reticulocyte count after 6-12 weeks to confirm response to iron replacement but sooner dependent on starting Hb and symptoms. • If no improvement repeat ferritin/CHr to assess if absorption issue • Once normalised, haemoglobin concentration and red cell indices should be monitored 3-4 monthly for 1 year, then once the following 1 year. • In any patient found to be iron deficient, look for underlying cause and consider 2WW referral for patients over 60 ? If concern re Malabsorption/dietary/GI bleeding then refer to gastroenterology for investigation and treatment

	? If GU/PV bleeding suspected then Gynae/Urology referral as appropriate. Haematology does not investigate nor manage Iron Deficiency Anaemia (IDA)
Interpreting results and Management	See British Committee for Standards in Haematology (BSH) and British Society of Gastroenterology (BSG) guidelines: • https://onlinelibrary.wiley.com/doi/epdf/10.1111/bjh.12311 • https://www.bsg.org.uk/resource/guidelines-for-the-management-of-iron-deficiency-anaemia.html
References	• Dignass, A.U., Gasche, C., Bettenworth, D., Birgegård, G., Danese, S., Gisbert, J.P., Gomollon, F., Iqbal, T., Katsanos, K., Koutroubakis, I. and Magro, F., 2015. European consensus on the diagnosis and management of iron deficiency and anaemia in inflammatory bowel diseases. *Journal of Crohn's and Colitis*, *9*(3), pp.211-222. • Muñoz, M., Acheson, A.G., Auerbach, M., Besser, M., Habler, O., Kehlet, H., Liumbruno, G.M., Lasocki, S., Meybohm, P., Rao Baikady, R. and Richards, T., 2017. International consensus statement on the peri-operative management of anaemia and iron deficiency. *Anaesthesia*, *72*(2), pp.233-247. • Okam, M.M., Koch T.A. and Tran, M.H., 2017. Iron supplementation, response in iron-deficiency anemia: analysis of five trials. *The American journal of medicine*, *130*(8), pp.991-e1.

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