Directorate of Laboratory Medicine York Teaching Hospital **NHS** Department of Clinical Biochemistry Filename: CB-INF-HIGHFERRITIN **Elevated serum ferritin** (CRP <5mg/L) **NHS Foundation Trust** Date of issue: July 2017 Check iron studies Transferrin saturation >50% *Transferrin saturation <50%* Repeat on a fasting sample IRON OVERLOAD EXCLUDED FASTING transferrin saturation >50% Clinical assessment: Check: **FBC** Alcohol history IRON OVERLOAD LIKELY Liver disease CRP/ESR Metabolic syndrome U&E (BMI, BP, DM2, lipids) LFTs* Send 2 x EDTA samples for Inflammatory HbA1c** Hereditary Haemochromatosis conditions Lipids** (HH) genotyping *** TFTs** Malignancy Renal failure 2 x HH genes **Thyrotoxicosis** <2 x HH genes Advise appropriate interventions: Routine referral to Patient at low risk of Alcohol abstinence significant iron overload gastroenterology Improved glycaemic control in absence of other risk Weight reduction

- * Abnormal LFTs: Consider viral hepatitis screening and / or abdominal US
- ** HbA1c, Lipids, TFTs: If clinically indicated / not checked in previous 12 months
- *** Genetic testing: Ensure appropriate patient consent is obtained
- **** Risk factors for secondary iron overload multiple transfusions or iron infusions, chronic iron replacement, iron-loading anaemias (thalassaemia, chronic haemolytic anaemia, sideroblastic anaemia, dyserythropoeitic anaemia), chronic liver disease due to alcohol, Hepatitis B/C, NASH

factors ****

Lowering triglycerides

- Koperdanova M, O Cullis J. Interpreting raised serum ferritin levels. BMJ 2015; 351: h3692
- Hazeldine S et al. Elevated serum ferritin: What GPs should know. Aus Fam Phys 2012; 41(12): 945