Elevated serum ferritin (CRP <5mg/L)

Transferrin saturation >50%
- Check iron studies
- Repeat on a fasting sample

Transferrin saturation <50%
- IRON OVERLOAD EXCLUDED

FASTING transferrin saturation >50%
- IRON OVERLOAD LIKELY
- Send 2 x EDTA samples for Hereditary Haemochromatosis (HH) genotyping ***

2 x HH genes
- Routine referral to gastroenterology

<2 x HH genes
- Patient at low risk of significant iron overload in absence of other risk factors ****

Clinical assessment:
- Alcohol history
- Liver disease
- Metabolic syndrome (BMI, BP, DM2, lipids)
- Inflammatory conditions
- Malignancy
- Renal failure
- Thyrotoxicosis

Check:
- FBC
- CRP/ESR
- U&E
- LFTs*
- HbA1c**
- Lipids**
- TFTs**

Advise appropriate interventions:
- Alcohol abstinence
- Improved glycaemic control
- Weight reduction
- Lowering triglycerides

* 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, dyserythropoietic anaemia), chronic liver disease due to alcohol, Hepatitis B/C, NASH

References:
- Koperdanova M, O Cullis J. Interpreting raised serum ferritin levels. BMJ 2015; 351: h3692