



Transferrin Saturation

Synonyms

Clinical Indication

Transferrin saturation is used as a screening test for haemochromatosis, a common (1 in 200-300 individuals), autosomal recessive disorder of iron absorption, with progressively increasing iron stores and organ damage. Not all patients with the genetic abnormality may be symptomatic, but they remain at risk. Raised levels should be confirmed by genotyping for HFE mutations.

Transferrin saturation may also be helpful in screening patients with low MCV (less than 80) and raised CRP (acute phase reaction) for iron deficiency anaemia.

Part of Profile / See Also

Request Form

Combined Pathology manual Blood form or ICE request

Availability / Frequency of Analysis

On request.

Turnaround Time

Same day

Patient Preparation

None required.

Sample Requirements

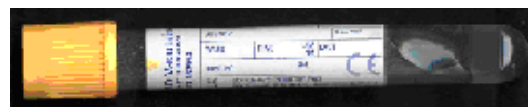
Specimen Type

Serum

Volume

0.5 mL

Container



Yellow top (SST) tube



Paediatric green (lithium-heparin) tube



Paediatric orange (lithium heparin) tube

Reference Range & Units

TRANSFERRIN SATURATION	
Sex	Range (%)
Female	15 – 45
Male	15 – 50

BSCH Guidelines Genetic Haemochromatosis 2000/EASL Clinical Practice Guidelines for HFE Haemochromatosis. J Hepatol (2010)

Transferrin saturation of less than 15% reflects iron deficiency and saturation greater than 60% suggests iron overload.

Interferences

Interpretation & Clinical

Decision Value (if applicable)

A persistent transferrin saturation >50% in the absence of other potential causes of iron overload is suggestive of hereditary haemochromatosis.

Transferrin saturation results are reviewed in clinical authorisation and HFE genotyping may be added by the duty Biochemist if appropriate

References

Sherwood RA, Pippard MJ, Peters TJ. Iron homeostasis and the assessment of iron status. *Ann Clin Biochem* 1998; 35: 693-708

Test code

Lab Handling

Analysed from primary tube and stored at 4°C