

Methaemoglobin

Synonyms

MetHb

Clinical Indication

There are two types of methaemoglobinaemia: congenital and acquired.

Congenital methaemoglobinaemia is characterized by diminished enzymatic reduction of methaemoglobin (i.e., haemoglobin with its iron in the ferric state) back to functional haemoglobin (i.e., haemoglobin with its iron in the ferrous state). Affected patients appear cyanotic but are generally asymptomatic.

Acquired methaemoglobinaemia typically results from ingestion of specific drugs or agents that cause increase in the production of methaemoglobin. It can be a fatal disease. Dapsone (anti-bacterial agent) is a common precipitating agent and accounts for most cases.

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

Sample Requirements

Specimen Type

Whole blood

Volume

1 ml

Container

Lithium Heparin tube



Paediatric Green top (Lithium Heparin) tube



Or Paediatric Orange top (Lithium Heparin) tube

Reference Range & Units

0.4 - 1.5 %

Interferences

Interpretation & Clinical

Decision Value (if applicable)

Patients with acute acquired methaemoglobinaemia may be asymptomatic at lower levels of methaemoglobin (i.e., <20 percent). Symptoms, when present, include headache, fatigue, dyspnea, and lethargy. At methaemoglobin levels >40 percent, respiratory depression, altered consciousness, shock, seizures, and death may occur.

References

Test code

MHB

Lab Handling

Store whole blood at 4°C in separating fridge prior to analysis on a blood gas analyser. Analyse as soon as possible.