

hsTroponin T

Synonyms

cTnT, high sensitivity Troponin T

Clinical Indication

Troponin T is a regulatory protein that helps heart muscle contract and is released into blood when cell damage occurs. Its use is in further investigation and risk stratification of patients with chest pain of undiagnosed origin.

Do not use high-sensitivity troponin tests for people in whom ACS is not suspected.

Please ensure that there is reasonable suspicion of acute myocardial ischaemia (clinical symptoms, ECG changes, history) before requesting hsTroponin since false positive results due to chronic elevations in other diseases such as chest infection, renal impairment are common.

Part of Profile / See Also

Request Form

Combined Pathology manual Blood form or ICE request

Availability / Frequency of Analysis

On request. Requests will be processed as soon as possible.

Turnaround Time

Same Day (within 1 hour)

Patient Preparation

Samples should not be taken from patients receiving therapy with high biotin doses (i.e. > 5 mg/day) until at least 8 hours following the last biotin administration

Sample Requirements

Specimen Type

Serum and plasma

Volume

2 ml

Acceptable Containers



Yellow top (SST) tube



Green top (lithium-heparin) tube



paediatric orange top (lithium-heparin)



paediatric green top (lithium-heparin)

Plain serum samples may also be used.

Reference Range & Units

A cut-off level of 14 ng/L (99th centile) is used. Providing the sample has been taken at least 6 hours after onset of symptoms a level below 14 ng/L rules out significant cardiac damage. Levels above 14 ng/L may be due to either a chronically raised level (e.g. in renal failure patients) or an acute rise seen in

acute coronary syndrome. In these patients a second Troponin T level after 6 hours may be indicated.

Interferences

Haemolysis causes falsely low results.

Interpretation & Clinical

Decision Value (if applicable)

Critical phoning limits:

>14 ng/L (Out patients, GPs, Wellesley Hospital)

>100 ng/L (Southend A&E)

>150 ng/L (Basildon A&E)

Although it is preferable that the same sample type is used for serial testing, a multicentre study showed a minimal difference between lithium heparin and serum for troponin analysis.

References

Multicenter analytical evaluation of a high-sensitivity troponin T assay

Saenger et al Clinica Chimica Acta 412 (2011) 748–754

Roche kit insert

Test code

TROP

Lab Handling

Analysed from primary tube and stored at 4°C.

Serum and plasma stable for 24 hours at 2-8°C.