

High Sensitivity Troponin-T Assay (Troponin-T HS)

General Points

- The new high sensitivity Troponin T (Troponin-T HS or Trop-T HS) assay replaced the old assay in July 2010.
- The service and interpretation of results were reviewed in December 2010, and these are some of the updated points, to encourage the appropriate use and interpretation of the increased analytical sensitivity of this assay.
- Troponin-T HS **≥14 ng/L** is still used to indicate the increased probability of myocardial damage.
- Acute myocardial damage highly unlikely if Troponin-T HS **<14 ng/L** 12 hours after the onset of chest pain. In low risk patients (TIMI<4) without ECG changes or ongoing pain, a value of <14ng/L 6 hours after onset of pain can be used for early discharge. A referral should be made to the chest pain nurses if the history was suggestive of angina.
- Troponin-T HS **≥ 100 ng/L** is usually indicative of acute myocardial damage **in an appropriate clinical context**.
- For Troponin-T HS values **between 14 – 99 ng/L, OR** where there is doubt over the diagnosis, it is recommended to re-measure the Troponin-T HS 6 hours later.
- An **increase of less than 20 %** in Troponin-T HS for any time period excludes recent acute myocardial damage.
- An increase of >100% in Troponin-T HS makes ACS more likely.
- Increases of 20 – 100 % in Troponin-T HS may be due to non-cardiac illness and the clinical context should be considered.
- Many patients with a peak Troponin-T HS level of less than 100ng/L will have a final diagnosis other than acute coronary syndrome.
- Troponin-T HS can be chronically elevated in patients with renal failure or heart failure. An acute rise can be seen in many illnesses other than acute coronary syndrome such as PE, sepsis, myocarditis, arrhythmia.
- A Troponin-T value on the old assay of 0.10 µg/L is equal to 100 ng/L on the new assay.

For patients arriving at ED follow the guide below on page 3

For patients arriving at MAU/CDU follow the guide below on page 4

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Automated comments that will appear on reports:

For Troponin-T HS < 14 ng/L

Please note Troponin-T HS results are reported in ng/L NOT µg/L.

Low Risk Result

This Troponin-T HS result excludes myocardial infarction if sample taken >12 hours after last significant pain.

If sample taken between 6-12 hours after pain, myocardial damage unlikely in low risk patients with a normal ECG.

For further information visit the RDH Pathology Website.

For Troponin-T HS 14- 99 ng/L

Please note Troponin-T HS results are reported in ng/L NOT µg/L.

Intermediate Risk Result

Suggest re-measure Troponin-T HS after 6 hours of the initial sample to determine if damage acute.

Increases in Troponin-T HS <20 % excludes a recent myocardial infarction. Patients with myocardial infarction usually have an increase of >100%.

Increases of 20 – 100 % may be due to non-cardiac illness and the clinical context should be considered.

Conditions other than myocardial infarction can also elevate Troponin-T HS including other cardiovascular disease, severe infection, PE and renal failure.

For further information visit the RDH Pathology Website.

For Troponin-T HS ≥ 100 ng/L

Please note Troponin-T HS results are reported in ng/L NOT µg/L.

Following cardiac chest pain this Troponin-T HS level is consistent with myocardial damage. Refer to CCU guidelines.

Conditions other than myocardial infarction can also elevate Troponin-T HS including other cardiovascular disease, severe infection, PE and renal failure.

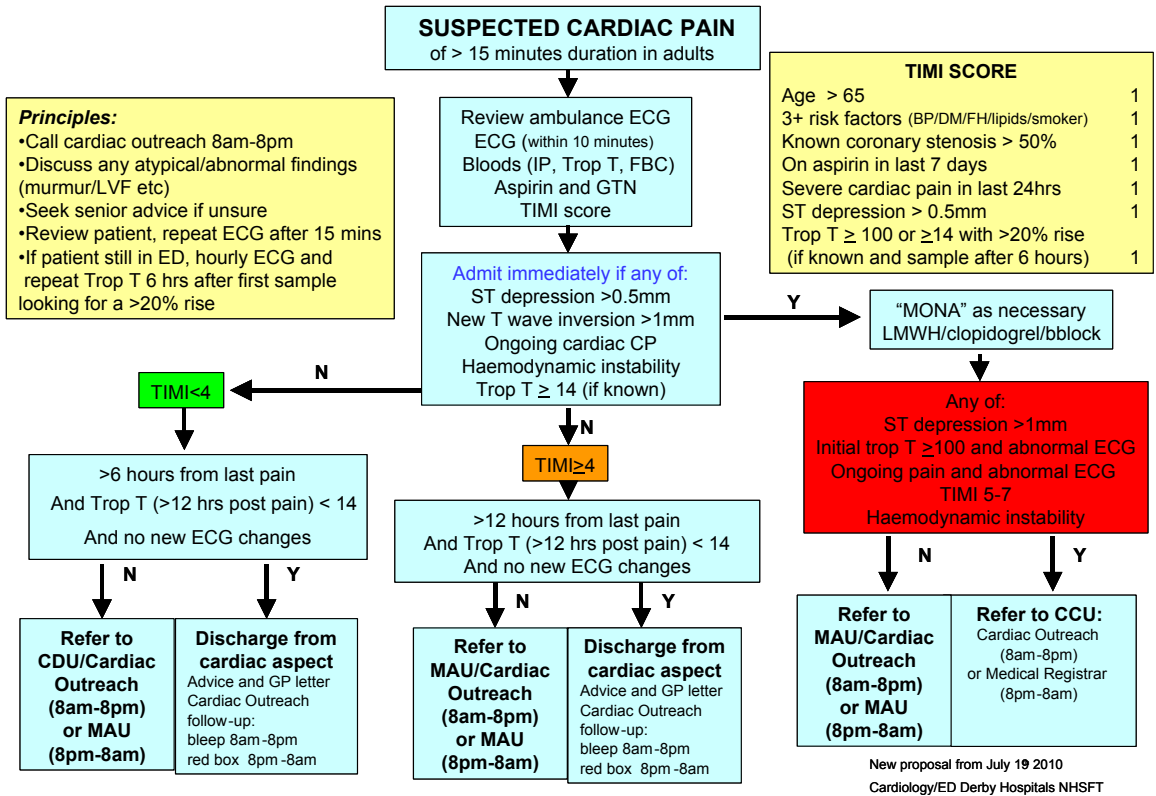
Interpret results with the clinical presentation.

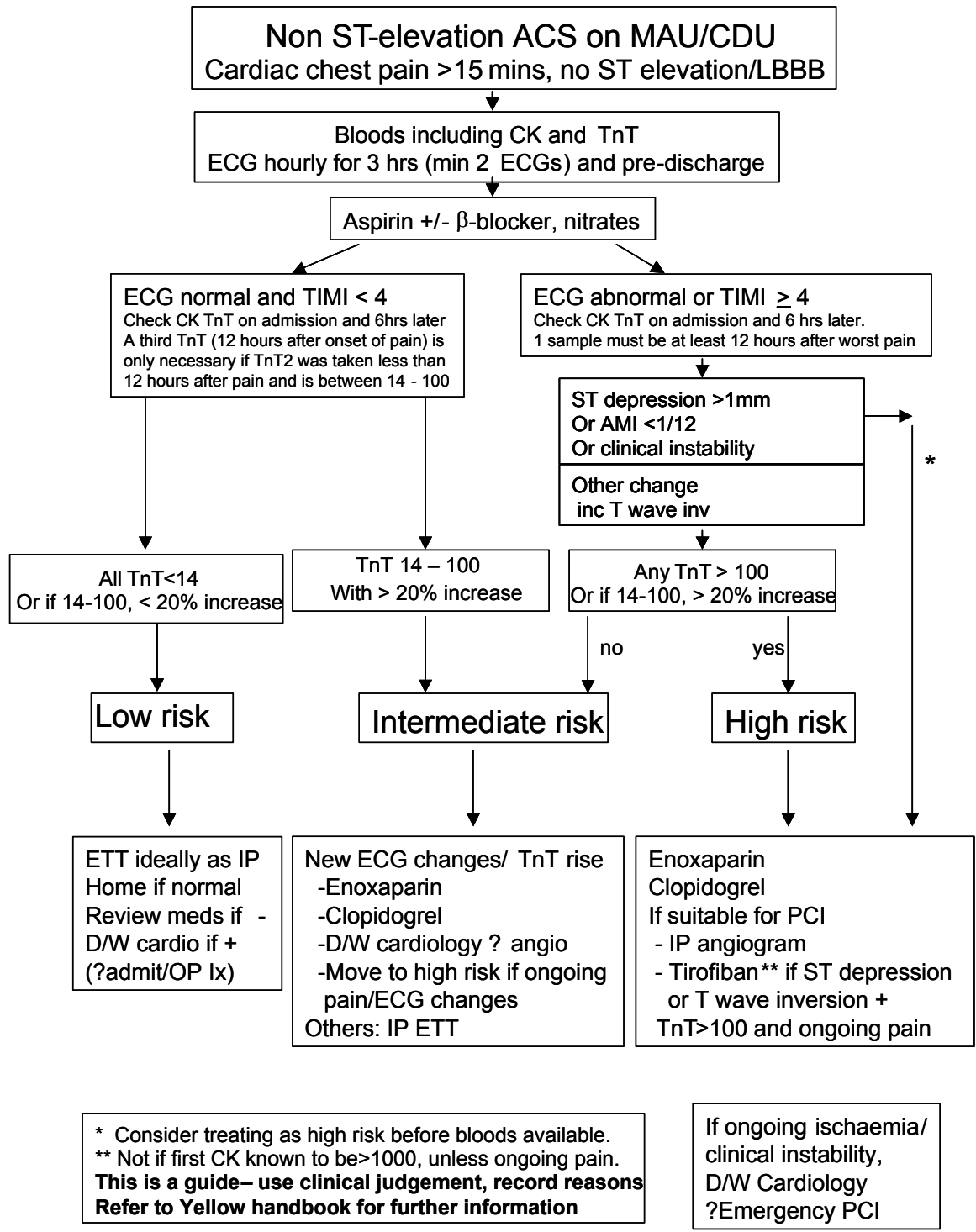
For further information visit the RDH Pathology Website.

Other notes :-

1) Any Troponin less than 10 to be reported as <10 ng/L.

ASSESSMENT OF SUSPECTED ACUTE CORONARY SYNDROME IN THE E.D. WITH OUT ST ELEVATION/NEW LBBS





* Consider treating as high risk before bloods available.
** Not if first CK known to be >1000, unless ongoing pain.
This is a guide– use clinical judgement, record reasons
Refer to Yellow handbook for further information

If ongoing ischaemia/
clinical instability,
D/W Cardiology
?Emergency PCI