

Frequently asked questions about the new troponin assay

The Queensland Health Cardiac Troponin Assay is Changing

Pathology Queensland will introduce a new cardiac troponin assay to all Queensland Health hospital laboratories in late October 2018. The new Beckman Coulter Access hsTnI will replace the previous troponin assay, which will no longer be available after the change.

Can the new assay be used as a single test to assess for ACS?

No. This is a new assay with currently limited evidence to support a single-testing strategy. Serial testing in conjunction with other clinical evidence must be used to assess for ACS.

What is the difference between a high-sensitivity troponin assay and the previous troponin assay?

The two assays measure the same thing, which is circulating cardiac troponin. The new high-sensitivity assay can reliably detect circulating troponin at lower levels, meaning that it has increased analytical precision. It can also detect troponin at normal levels in healthy individuals.

Will there be an increase in the number of elevated troponin results reported with the new assay?

Yes, however analysis shows that in a **suspected-ACS population** the increase will be less than 3%, mainly due to increased positive results reported in females.

In a **non-suspected-ACS population**, it is possible that there will be a greater increase in positive results, potentially leading to unnecessary investigation and even harm. Cardiac troponin can be elevated in a wide range of other medical conditions, however there is **no evidence that testing for troponin is of value or will alter clinical care** and patient outcomes.

It is important that clinicians utilise this test appropriately and **ONLY test for cardiac troponin if acute coronary syndrome is suspected.**

Why have sex-specific reference ranges been introduced?

Males and females have different levels of normal cardiac troponin concentrations due to physiological and morphological differences. The clinically significant value of circulating troponin is lower in females than in males.

How does the new troponin assay affect hospitals utilising the ImpACT Pathway?

The new assay complements the ImpACT (Improved Assessment of Chest-pain Trial) pathway.

It will not change management of low-risk patients, who are already being tested at 0 + 2 hours.

Intermediate-risk patients undergoing inpatient EST will not be affected. For sites unable to provide early objective testing, patients can be tested at 0 + 3 hours and, if appropriate, discharged for an outpatient objective test within 14 days.

All High-risk patients can now also be tested at 0 + 3 hours (as opposed to 0 + 6 hours).