The Association for Clinical Biochemistry & Laboratory Medicine

Better Science, Better Testing, Better Care

Summary of NICE Guidelines

Title	Myocardial infarction (acute): Early rule out using high-sensitivity troponin tests (Elecsys Troponin T high-sensitive, ARCHITECT STAT High Sensitive Troponin-I and AccuTnI+3 assays)
NICE Reference	DG15
Date of Review:	October 2018
Date of Publication	October 2014
Summary of Guidance (Max 250 words)	• The Elecsys Troponin T high-sensitive and ARCHITECT STAT High Sensitive Troponin-I assays are recommended as options for exclusion of non-ST-segment-elevation myocardial infarction (NSTEMI) in people presenting to an emergency department with chest pain and suspected acute coronary syndrome, when used with early-rule out protocols. No published accuracy data for the AccuTnI+3 assay was identified and therefore clinical effectiveness not assessed. Generation of robust evidence for the use of this assay in this context is recommended. • High-sensitivity troponin tests are defined as those with a coefficient of variation of 10% or less at the 99th percentile, that are able to detect cardiac troponin in at least 50% of the reference population. • Laboratories should report absolute values and the upper reference limit should be set at the 99th percentile. • Results should be interpreted along with clinical judgement and the results of clinical assessment. • The increased sensitivity of these assays allows earlier diagnosis, meaning more rapid discharges for individuals where NSTEMI is excluded are facilitated. Similarly, where appropriate, faster medical interventions can be initiated which have better long-term outcomes. Assessment of cost-effectiveness suggests that when used with early rule-out pathways, high-sensitivity troponin assays should lead to more effective use of NHS resources.
Impact on Lab (See below)	■ **Important**
Lab professionals to be made aware	✓ Laboratory Manager ✓ Chemical Pathologist ✓ Clinical Scientist ✓ Biomedical Scientist
Please detail the impact of this guideline (Max 150 words)	Where required, laboratories should implement appropriate high-sensitivity troponin assays and be able to provide results within the required turnaround time. The laboratory should be involved with and support the development of early rule-out protocols, and be equipped to provide appropriate advice on the performance and utility of high-sensitivity troponin assays to the emergency department. Laboratory staff should be prepared to offer guidance on the interpretation of high-sensitivity troponin results.

Impact on Lab

- **None**: This NICE guideline has no impact on the provision of laboratory services
- **Moderate**: This NICE guideline has information that is of relevance to our pathology service and may require review of our current service provision.
- **Important:** This NICE guideline is of direct relevance to our pathology service and will have a direct impact on one or more of the services that we currently offer.

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