LAB NOTE

TROTONIN -- NEW REFERENCE (NORMAL) RANGE

TROPONIN level in the serum (or plasma) is integral in the assessment of patients for myocardial injury. Current laboratory methods for detection of troponin in blood are extremely sensitive, and even more sensitive assays will soon be available.

The Joint European Society of Cardiology/ American College of Cardiology Committee has recommended a definition of elevated troponin as greater than the 99th percentile of a normal reference population at a level measured with acceptable imprecision (coefficient of variation) of less than 10%. A recent review of data in our laboratory indicates this upper limit of normal fulfilling these criteria for TROPONIN is 0.03 ng/ml.

Following discussion with the hospital’s AMI committee and the Cardiology Department the laboratory plans to lower the TROPONIN normal range to less than or equal to 0.03 ng/ml (from the current value of < 0.1 ng/ml).

The change will occur in mid-April. The exact date will be posted in COMPASS.

Please note that troponin is a sensitive marker of myocardial damage which often, but not always, is caused by impaired myocardial perfusion in the context of an acute coronary syndrome (ACS). However, elevated troponin in NOT specific for ACS. Elevation of troponin can occur in pericarditis, myocarditis, sepsis, hypovolemia, pulmonary embolism, tachyarrhythmias, congestive heart failure, and renal insufficiency. Increase in troponin in most, if not all, of these conditions is probably due to some degree of myocardial injury by various mechanisms. Hence, troponin level, as an aid in the diagnosis of ACS, must always be interpreted in conjunction with the clinical setting.

Reference:

Online at--  http://circ.ahajournals.org/cgi/content/full/116/22/2634

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