

HICG/1/40 - High-Sensitivity Cardiac Troponin On Presentation To Rule Out Myocardial Infarction

High-sensitivity cardiac troponin assays permit quantification of troponin in all healthy persons and offer a new paradigm for the assessment of patients with acute chest pain. Currently the majority of patients are admitted for serial troponin measurements with large numbers of unnecessary admissions. We hypothesize that patients with very low levels of cardiac troponin on presentation may be safely discharged direct from the emergency department. We will evaluate this in ~ 7,000 consecutive patients with suspected acute coronary syndrome presenting to secondary care hospitals in Lothian. Using record linkage we will explore associations between admission high-sensitivity cardiac troponin concentration and myocardial infarction or death at 30 days. The sensitivity, specificity and negative predictive value of a range of troponin concentrations will be evaluated. We will define the optimal strategy to rule out myocardial infarction and propose a novel pathway for the assessments of patients with acute chest pain.