#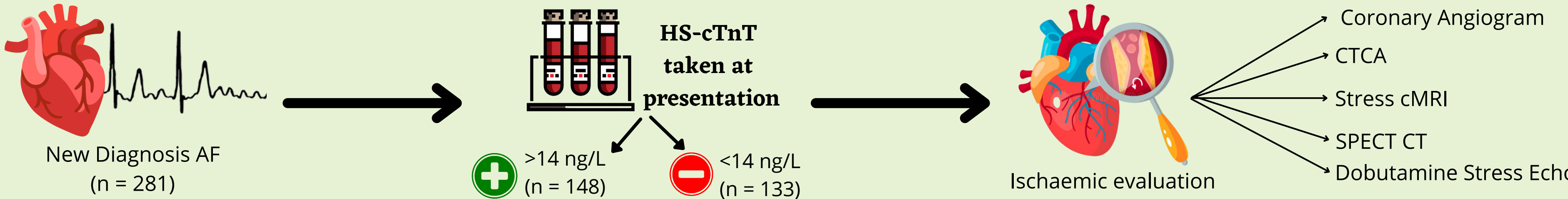 Predictive value of high-sensitivity Troponin for significant coronary disease in new atrial fibrillation with rapid ventricular response
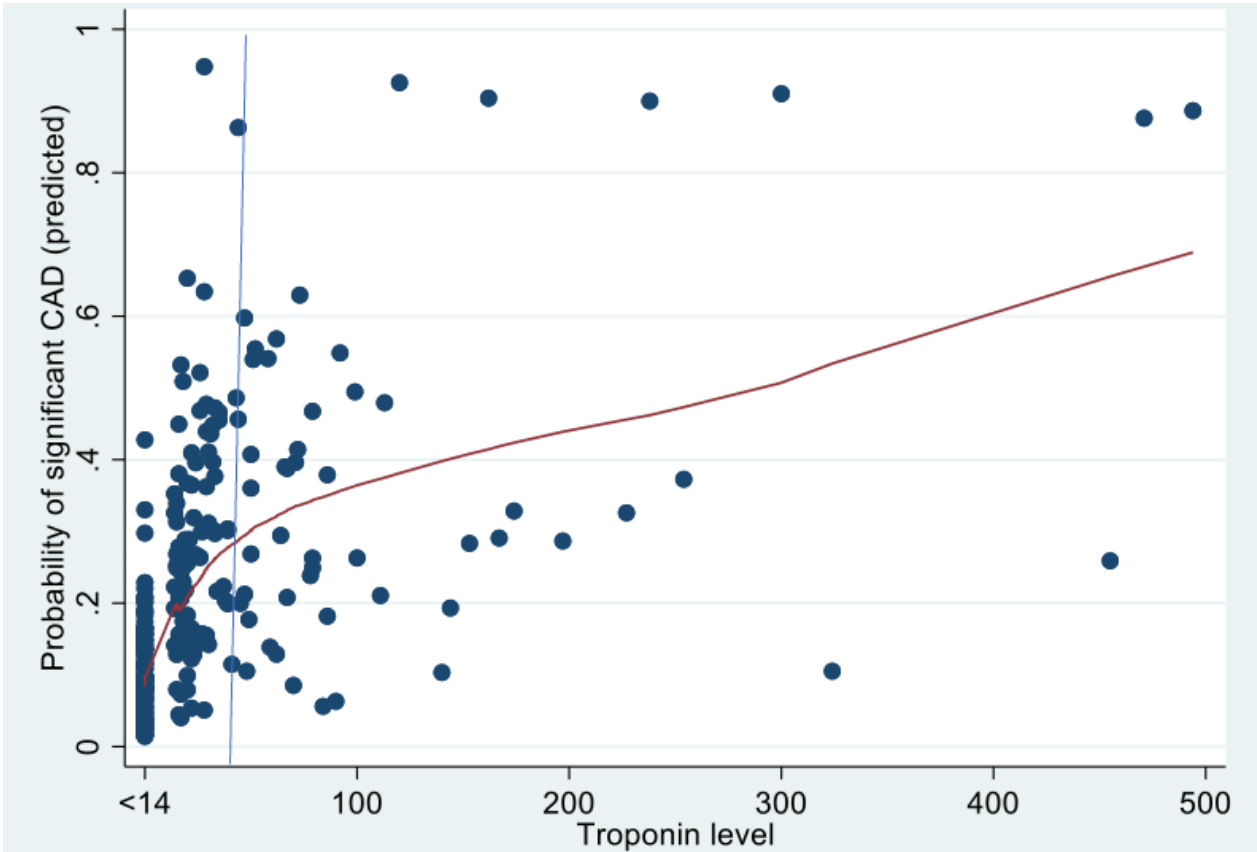

New Diagnosis AF
(n = 281)

HS-cTnT taken at presentation

＋ >14 ng/L (n = 148) ＞ ＜ <14 ng/L (n = 133)

Ischaemic evaluation

Coronary Angiogram
CTCA
Stress cMRI
SPECT CT
Dobutamine Stress Echo

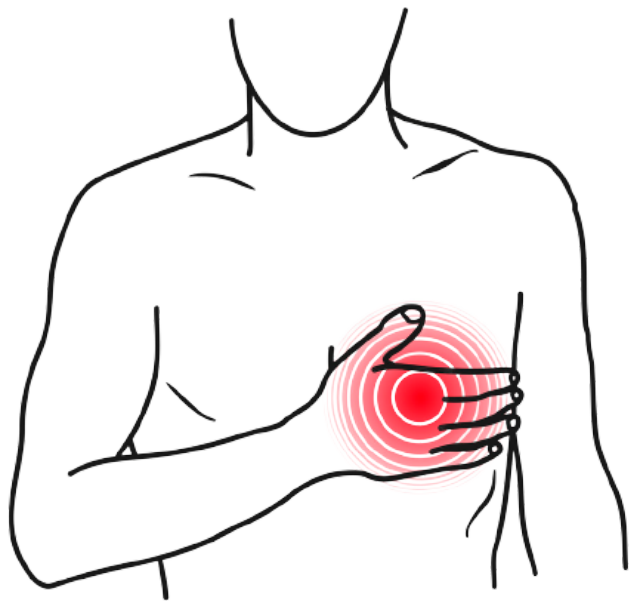## Predictive Value of HS–cTnT for Significant CAD

13 (9.8%) in negative index
HS-cTnT with significant CAD
vs. 51 (34.5%) in positive index
HS-cTnT group (OR 2.9, p = 0.005)

Optimal Cut-Off Troponin Value

Optimal cut-off HS-cTnT value for ruling out significant CAD
determined to be < 30 ng/L by
logistic model (NPV 91.8 %, Sensitivity 75%)

Troponin vs. Angina

HS–cTnT status found to be a
more accurate predictor of significant
CAD than clinically suspected
stable angina pectoris
(LR chi^2 66.50 vs, 64.99,
Pseudo R^2 0.2217 vs. 0.2166

Graphical Abstract Text. This study demonstrates a potential role for high-sensitivity troponin-T as a screening biomarker to rule out significant coronary artery disease in patients with new rapid atrial fibrillation, allowing better risk-stratification and more targeted ischaemic testing.

AF = Atrial Fibrillation; HS-cTnT = High-sensitivity cardiac troponin T; CAD = Coronary artery disease; CTCA = Computed Tomography Coronary Angiogram; cMRI = Cardiac MRI; SPECT CT = Myocardial perfusion imaging with Single-Photon Emission Computed Tomography ; CAD = Coronary Artery Disease; OR = Odds Ratio; NPV = Negative Predictive Value.