

PROspective Multicenter Imaging Study for Evaluation of Chest Pain (PROMISE)

Purpose: To evaluate improvement in clinical outcomes in subjects with chest pain comparing initial anatomic imaging with coronary CT angiography (CTA) [anatomic] to an usual care with stress testing [functional].

Trial Design: Prospective, multicenter, open label, NHLBI-funded, randomized with parallel assignment. Patients presenting with new chest pain randomized to coronary CTA or functional testing (exercise electrocardiogram, stress echocardiography or nuclear stress test). N= 10,003. F/U = 2 years.

Primary Endpoint: time to first event – composite of major cardiovascular (CV) events (rate of death, heart attack, major procedural complications or chest pain hospitalization).

Trial Results	Primary endpoints at 2 years	% of patients where catheterization didn't ID significant stenosis
CT (anatomic testing)	3%	3.4%
Functional testing	3%	4.3%

Conclusions: There was no difference for the primary endpoint with either test; there was less radiation exposure with CT.