APPENDIX

Table 1 in the Review: How the numbers were estimated

MPS : calculated wte people assuming 40 **MPS** studies per week (8 per day) over 48 weeks giving $\pm$2000 per year. Thus 2000 MPSs per million in a population of 60 million leads to 120,000 studies and hence 60 cardiologists and 180 technician. (Estimated on 3 techs per 1 cardiologist per 2000 studies. Calculations will depend on mix medical and non-medical staff)

Stress Echocardiography : calculated wte people assuming 25 **stress echos** per week (5 per day) over 48 weeks giving 1200 per year. This means that 4000 stress echos per million in a population of 60 million leads to 240,000 studies and hence 200 cardiologists and technicians.

CMR : Current utilisation of and staff (full time employed in CMR) in the UK is estimated from known activity at the major centres. New indications in CAD and increasing roll-out of CMR are estimated to double usage by 2010 and increase activity 10 fold by 2020.

CT : Calculated from 20 ct scans per day / 100 per week / 5000 per year. For a population of 60 million this means an additional 120,000 scans per year.

Figure A1: Algorithm of current status for investigating CAD

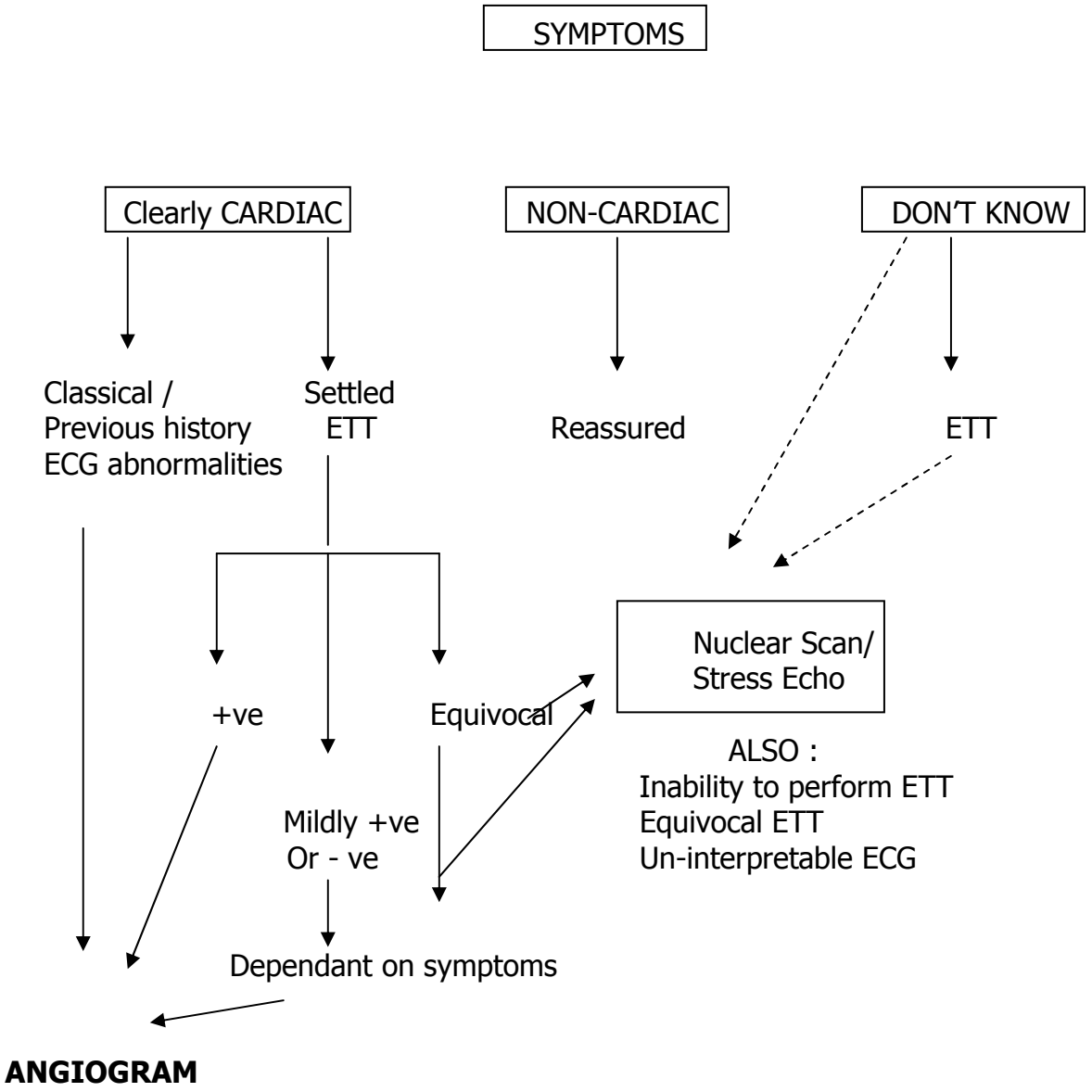

Table A1: Qualitative evaluation of current and potential future tests for the evaluation of patients with coronary artery disease

	Nuclear Scans	Stress Echo	CMR	MDCT	Coronary and LV Angiogram
LV Structure	+ (limited)	++	+++	++	++ 2 dimensions only
LV Function - at rest - on stress	 +++ ++	 +++ ++	 +++ +++ scar/infarct size	 + –	 ++ –
Coronary Anatomy	–	–	+	++	+++
Advantages	Established. Prognostic information. Costs - Equipment ++ Procedure ++	No radiation. Ease of procedure. Prognostic Information Costs - Equipment + Procedure +	No radiation. LV structure and function in one test. Costs - Equipment +++ Procedure ++	Rapid procedure time. Coronary resolution good. Wall structure assessment. Costs – Equipment ++ Procedure ++	"Gold standard". Prospective longitudinal studies giving prognostic info. Quick. Widely used. Training programme already established. Costs - Equipment ++ Procedure ++
Disadvantages	Radiation. Staffing. No coronary anatomy. Rivalry with Stress Echo.	Reporting. Operator dependant. No coronary anatomy. Rivalry with MPS.	Training to be established. Patient discomfort. Analysis time. Some devices incompatible with CMR currently.	Radiation. Need careful patient preparation (beta blockers/ nitrates). No added information ? Calcification.	Radiation Invasive Luminogram
Future developments likely	–	Automated edge detection. 3D Myocardial contrast imaging	New sequences. Navigator systems. MR compatible pacemakers. Interventional procedures possible		–