was cost-effective was 73%. Sensitivity analyses confirmed the model stability and willingness-to-pay threshold of AUD 50,000 per QALY gain, the probability that rTMS QALYs gained with rTMS was higher than for antidepressant medications (1.25 versus oxidase inhibitors). The model synthesized data sourced from a meta-analysis, tricyclics, noradrenergic and specific serotonergic antidepressants and monoam-

**PMID47**

**FRACTIONAL FLOW RESERVE VERSUS CORONARY ANGIOGRAPHY GUIDED MANAGEMENT IN NON-ST ELEVATION MYOCARDIAL INFARCTION: A HEALTH ECONOMIC ANALYSIS**

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**OBJECTIVES:** Patients with non-ST-elevation myocardial infarction are managed based visual assessment of coronary angiography, which can be inaccurate and subjective. A randomized pilot trial has investigated an alternative approach using physiological guidance with fractional flow reserve that optimizes outcomes. Objectives was to estimate the cost-effectiveness of FFR-guided management versus coronary angiography.

**METHODS:** A trial-based economic evaluation was conducted (n=245). A novel UK National Health Service Part I of the analysis used raw, unadjusted costs and QALYs assembled using individual resource use and EQQD responses from the KCT. Part II used statistical modelling to model the effect pathway of FFR by conditioning total costs and QALYs on the treatment decision coronary artery bypass graft (CABG), medical therapy and percutaneous coronary intervention (PCI)). Results were then applied to treatment decision distributions following FFR or standard care management. Uncertainty in GLM coefficients, unit cost parameters and sampling were incorporated using bootstrapping and Monte Carlo methods.

**RESULTS:** FFR reduced revascularization by PCI or CABG (OR 0.52; 95%CI: 0.28 – 0.94; p=0.02). Part I: FFR led to a mean cost savings ($8,253 versus $8,603), difference -$350 (-$505 to –$158). Likely drivers of costs savings were length stay (-33% [94%]) and index year health (–21% [223%]). However, low information size contributed to their large imprecision. Incremental QALYs were comparable (0.811 vs. 0.799; diff: 0.013 [0.033]). Part II: FFR led again to a mean cost savings ($8,253 versus $8,532), difference -$279 (-$519 to –$8,328). Therefore, incremental QALYs were also comparable (0.801 vs. 0.806; diff: -0.005 [0.004]). The probability of cost-effectiveness remained comparable over common willingness-to-pay (70-75%).

**Conclusions:** Early evidence suggests FFR may be cost saving and comparable in QALYs. However, uncertainty in cost savings (£8,328 vs. £8,532; difference: –£204 [£305]) and comparable increments (-£331 [£342]) and index year health events (-£217 [£223]). However, uncertainty around the ICER suggests a need for more precise parameter estimates. It remains a novel mechanism to improve outcomes in undertreated AF patients.

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**COST-EFFECTIVENESS ANALYSES OF LUNG CANCER SCREENING STRATEGIES USING LOW DOSE COMPUTED TOMOGRAPHY (LDCT): **A **SYSTEMATIC REVIEW**

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**OBJECTIVES:** Lung cancer is the leading cause of cancer related mortality in North America. This is attributable to it being often diagnosed at an advanced stage. Low-dose computed tomography (LDCT) is a tool that can be used to detect lung cancer at an earlier stage thereby improving patient outcomes. Recently, the National Lung Screening Trial (NLST) has shown that this method of screening can produce significant mortality reductions; however, whether such a program is cost-effective is not well established. **METHODS:** We searched MEDLINE, EMBASE, IBR Reviews – Health Technology Assessment, the National Health Service (NHS) Economic Evaluation Database, and the Cochrane Database of Systematic Reviews. We included studies that presented a cost-effectiveness analysis of LDCT as a method for lung cancer screening. Studies were included that were based on advances in imaging technologies. Costs are presented in 2012 United States dollars.

**RESULTS:** Thirteen studies were identified that met the criteria for inclusion. Four studies were from the United States, Australia, Israel, and Japan. Most studies evaluated an annual screening program while four studies evaluated one time only screening. Incremental cost-effectiveness ratios (ICERs) were extracted for comparison and varied markedly between $8,186/LYG ($120,000/QALY) in favorable risk screening (n=2) and moderate cost-effective with an ICRA (n=1). Screening in those with renal diseases (n=2) and diabetes (n=1) was found to be not cost-effective in other immunocompromised populations was not cost-effective (n=1).

**Conclusions:** Screening of HIV patients with a TST is highly cost-effective and screening of immigrants and foreign-born with an IGRAn is moderately cost-