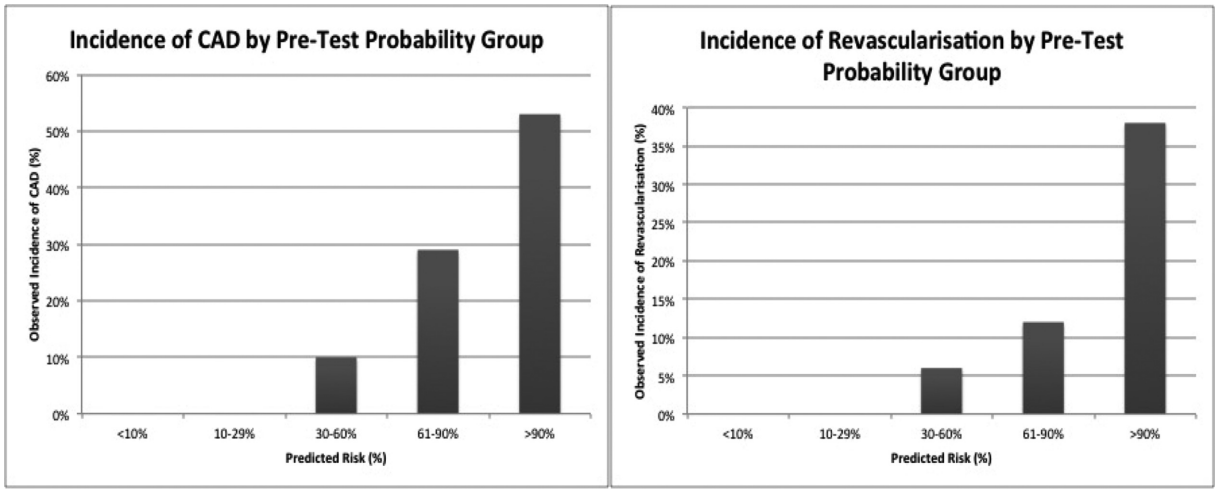

Abstract 89 Figure 1 Incidence of coronary artery disease and revascularisation by pre-test probability group

90 PROGNOSIS IN SUSPECTED ANGINA (PISA): A 10-YEAR RISK MODEL DEVELOPED IN A CHEST PAIN CLINIC COHORT

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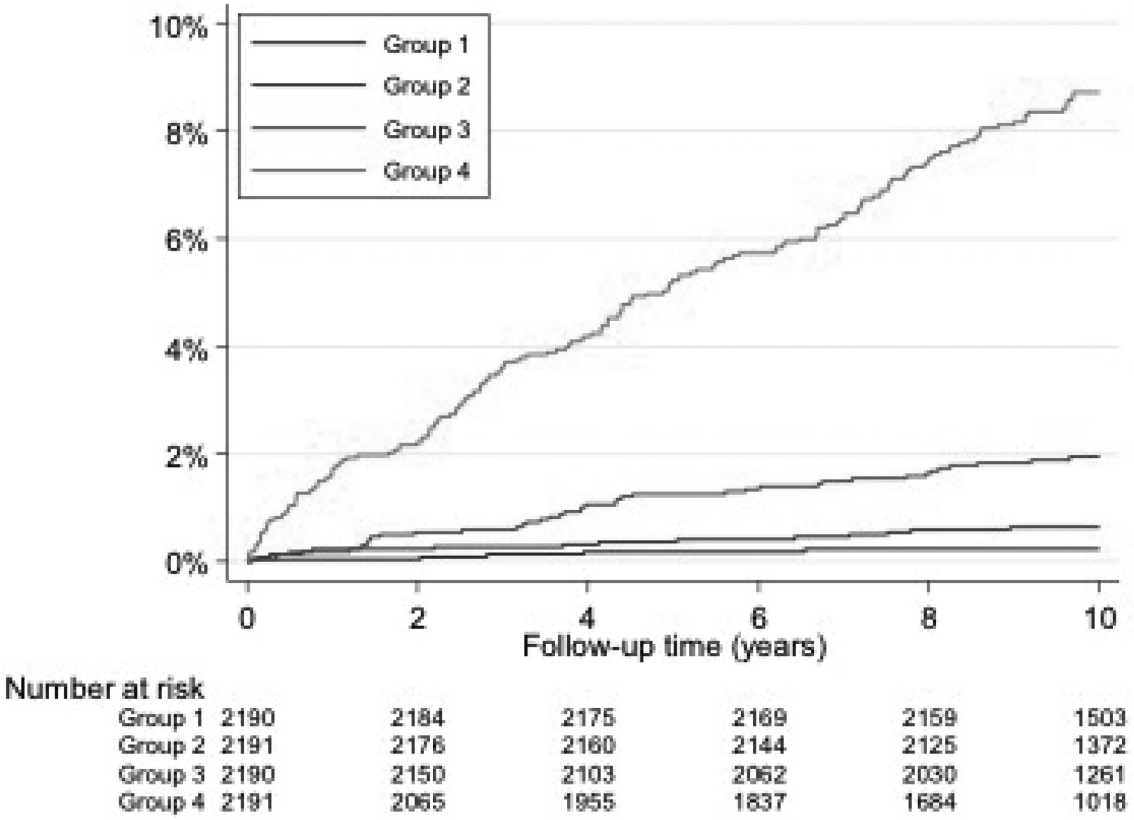
Background Diagnostic models play an important role in the management of suspected angina but provide no explicit information about prognosis. The objective of this study was to develop a prognostic model to predict 10-year coronary mortality in patients presenting for the first time with suspected angina to complement the updated Diamond-Forrester diagnostic model of disease probability.[1]

Methods A multicentre cohort of 8762 patients with suspected angina was followed up for a median of 10 years during which 233 coronary deaths were observed. Developmental (n



Abstract 90 Figure 1 Kaplan-Meier curve by quarters of risk for coronary mortality by the full prognostic model. There were 5, 14, 41 and 173 coronary deaths in risk groups 1 (lowest risk quarter) to 4 (highest risk quarter), respectively.

= 4412) and validation (n = 4350) prognostic models based on clinical data available at first presentation showed good performance with close agreement and the final model utilised all 8762 patients to maximize power.

Results The prognostic model showed strong associations with coronary mortality forage, sex, typicality of chest pain, smoking status, diabetes, pulse rate and ECG findings. Model discrimination was good (C statistic 0.83), patients in the highest risk quarter accounting for 173 coronary deaths during follow-up (10 year risk of death: 8.7%) compared with a total of 60 deaths in the three lower risk quarters. Observed 10-year coronary mortality increased with increasing estimates of disease probability, ranging from 0.2% to 25.4% with CAD probability of <10% and >90%, respectively. However, when our prognostic model was simplified to incorporate only those factors used by the updated Diamond-Forrester (age, sex and character of symptoms) it under-estimated coronary mortality risk, particularly in patients with risk factors.

Conclusion For the first time in patients with suspected angina, a prognostic model is presented based on simple clinical factors available at the initial cardiological assessment. The model discriminated powerfully between patients at high risk and at lower risk of coronary death during the 10-year follow-up period. Its potential clinical utility was reflected in the prognostic value it added to the updated Diamond-Forrester diagnostic model of disease probability.

REFERENCE

1 Genders TS *et al*. CAD Consortium. A clinical prediction rule for the diagnosis of coronary artery disease: validation, updating, and extension. *Eur Heart J*. 2011;**32** (11):1316–– 30

91 THE EFFECTIVENESS AND COST-EFFECTIVENESS OF SPINAL CORD STIMULATION FOR REFRACTORY ANGINA (RASCAL STUDY): A PILOT RANDOMIZED CONTROLLED TRIAL

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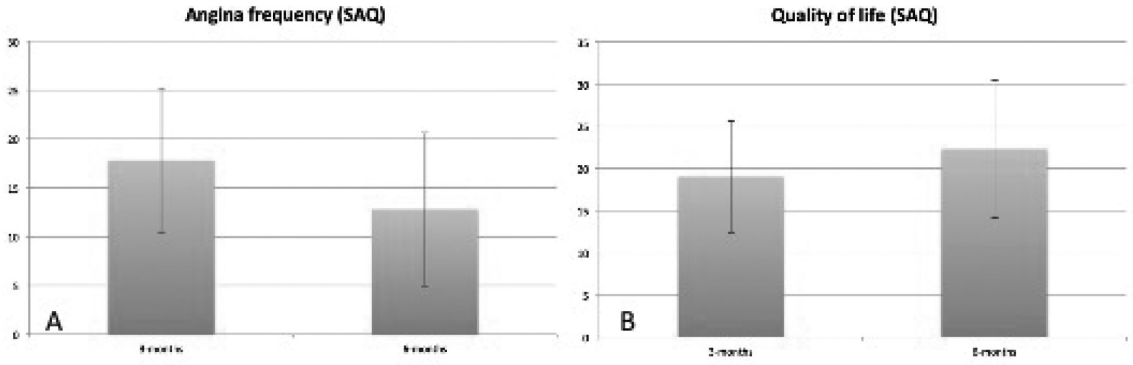
Introduction Patients with refractory angina (RA) unsuitable for coronary revascularization experience high levels of hospitalization and poor health-related quality of life. Randomized trials have shown spinal cord stimulation (SCS) to be a promising treatment for chronic stable angina and RA; however, none has compared SCS with usual care (UC). The aim of this pilot study was to address the key uncertainties of conducting a definitive multicenter trial to assess the clinical and cost-effectiveness of SCS in RA patients, i.e., recruitment and retention of patients, burden of outcome measures and our ability to standardize UC in a UK NHS setting.

Methods Patients were recruited from 4 UK sites between January 2011 and June 2014. RA was defined as Class III or IV angina despite optimal anti-angina therapy with angiographically documented coronary artery disease deemed unsuitable for revascularization by the referring cardiologist or cardiothoracic surgeon. All patients had demonstrable ischemia on functional testing and satisfied multidisciplinary assessment for SCS suitability. RA patients deemed suitable were randomized in a 1:1 ratio to SCS plus UC (SCS group) or UC alone (UC group). We sought to assess: recruitment, uptake, and retention of patients; feasibility and acceptability of SCS treatment; the feasibility and acceptability of standardizing UC; and the feasibility and acceptability of the proposed trial outcome measures. Patient outcomes were assessed at baseline (prerandomization) and three and six months postrandomization.

Results We failed to meet our planned recruitment target (45 patients) and randomized 29 patients (15 SCS group, 14 UC group) over a 42-month period across our sites. None of the study participants chose to withdraw following consent and randomization. With exception of two deaths, all completed evaluation at baseline and follow-up. Although not formally powered to compare outcomes either within or between groups, we did see evidence of an improvement in health related quality of life demonstrated by the disease-specific Seattle Angina Questionnaire (SAQ) as well as generic quality of life questionnaires, exercise capacity, and reduction in angina frequency at follow-up in both groups, with a trend towards larger improvements in the SCS group (Figure 1).

Conclusions While patient recruitment was found to be challenging, levels of participant retention, outcome completion, and acceptability of SCS therapy were high. Lessons learnt from this pilot study will help develop an appropriately



Abstract 91 Figure 1 (A) Between group mean difference at three and six months for angina frequency (SAQ) adjusted for baseline score and stratification variables (i.e. centre, CCS class, age < 65 vs. ≥65 years). Positive between-group difference in SAQ indicates superior scores for SCS group compared with UC group. (B) Between-group mean difference at three and six months for SAQ angina quality of life score adjusted for baseline score and stratification variables (i.e. centre, CCS class, age <65 vs. ≥65 years). Error bars represent standard error of difference. Positive between-group difference in SAQ indicates superior scores for SAC group compared with UC group