

Abstract 79 Table 1 Odds ratio adjusted for age, gender and ethnicity

Cancer Type	Prevalence of Cancer n	Prevalence of Hyperlipidaemia n (%)	Crude mortality with Hyperlipidaemia n (%)	Crude mortality without Hyperlipidaemia n (%)	Adjusted Odds ratio for Mortality (95% CI)
Lung Cancer	7997	473 (5.9%)	383 (81.0%)	6521 (86.7%)	0.78 (0.70-0.87)***
Breast Cancer	5481	170 (3.1%)	47 (27.6%)	1962 (36.9%)	0.57 (0.43-0.77) ***
Prostate Cancer	4629	271 (5.9%)	74 (27.3%)	2042 (46.9%)	0.53 (0.50-0.79) ***
Bowel Cancer	4570	243 (5.3%)	125 (51.4%)	2716 (62.8%)	0.70 (0.58-0.84) ***

p < 0.05\* p < 0.01\* p < 0.001 CI = Confidence Intervals

potentially beneficial effect of lipid-lowering medications amongst cancer patients should be further investigated.

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#### TWO YEAR PROGNOSIS IN STABLE CORONARY ARTERY DISEASE: A PROSPECTIVE STUDY OF 2346 PATIENTS IN UK PRIMARY CARE

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**Introduction** Coronary artery disease (CAD) is a leading cause of morbidity and mortality in the UK. Whilst data are available on outcomes for patients with acute coronary syndromes, much less is known about mortality and other cardiovascular outcomes for outpatients with stable CAD managed predominantly in primary care. CLARIFY (the “ProspeCtive observational LongitudinAl Registry oF patients with stable coronarY artery disease”) is a large international study that provides a unique opportunity to describe the contemporary characteristics and outcomes for patients with stable CAD in the UK and compare them with a worldwide population.

**Methods** CLARIFY is an international, prospective, observational, longitudinal study designed to collect data on the characteristics, management and outcomes of patients with stable CAD. Patients were enrolled between November 2009 and June 2010 from an outpatient population with a history of at least one of the following: myocardial infarction (MI), coronary artery bypass grafting (CABG), or percutaneous coronary intervention (PCI) >3 months prior to recruitment; coronary stenosis. >50%; or reversible myocardial ischemia.

Enrollment occurred across 45 countries. To reduce selection bias, each participating physician recruited 10–15 consecutive outpatients with CAD to meet a predefined country target of 25 patients per million inhabitants (range 12.5–50). In the UK, patients were recruited from 250 GP surgeries, selected to provide a geographic and socioeconomic profile representative of the population. Baseline data included demographics, clinical history, risk factors and drug therapy. Patients are followed up for 5 years with annual assessments to assess clinical status, outcomes and medications and 6-monthly telephone calls

An independent centre, the Robertson Centre for Biostatistics at the University of Glasgow, was responsible for data collection and analysis.

**Results** 32,901 patients were recruited worldwide, of which 2,346 were from the UK and form this study population. Table 1 outlines the baseline characteristics as compared to the rest of the CLARIFY population. Mean age was  $67 \pm 9$  years in the UK (rest of CLARIFY  $63.9 \pm 10.5$ ,  $p < 0.001$ ) and around  $\frac{3}{4}$  were male. Significant co-morbidities were common, together with a high prevalence of cardiovascular risk factors (18% with diabetes and 70% with a history of smoking in the UK). Although MI was more common there was a significantly lower prevalence of heart failure in the UK cohort.

At 2 year follow-up all cause mortality was 3% and cardiovascular mortality 1.3%.

**Conclusions** In a large, representative cohort of stable CAD patients in primary care within the UK 2-year mortality is 3% and is similar to that seen in the rest of the international CLARIFY population. Secondary prevention appears to be reasonable although there may be room for improvement. Although there appear to be differences in rates of MI and stroke, further analysis is needed to explore the possible causes for these.

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#### INNOVATIVE MANAGEMENT OF LOW RISK PATIENTS WITH CHEST PAIN PRESENTING TO THE EMERGENCY DEPARTMENT

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**Introduction** Chest pain is one of the most common symptoms amongst patients presenting acutely to secondary care. The Rapid Access Cardiology Clinic (RACC) was established at our hospital with the aim of reducing admissions of low risk patients presenting to the emergency department (ED) and medical assessment unit (MAU) with chest pain of presumed cardiac origin. This is designed as a ‘next day’ consultant led service running 5 days a week with access to same day echocardiography, invasive and CT coronary angiography. This evaluation aimed to assess safety, clinical outcomes and service efficiencies achieved from this service.

**Abstract 80 Table 1** Baseline characteristics of UK (n = 2346) vs. rest of the CLARIFY (n = 30,555) population

Baseline characteristics	UK population %	Rest of CLARIFY population %	p value
Male gender	76.0	77.8	0.026
History of MI	65.1	59.5	<0.001
History of PCI	41.4	59.9	<0.001
History of CABG	27.3	23.2	<0.001
History of heart failure	4.8	15.8	<0.001
Any antiplatelets	91.7	95.3	<0.001
Statin use	85.7	82.6	<0.001
ACEi/ARB use	74.8	76.4	0.079
Beta blocker use	65.6	76.0	<0.001

**Methods** We carried out a retrospective analysis of sequential patients referred to the RACC with chest pain over a one month period. Data was collected for investigations performed, need for revascularisation, re-presentations and adverse events over 3 months of follow up. In addition to this, we reviewed the admission notes to evaluate what alternative management pathways may have been used in order to assess the number of overnight admissions, outpatient appointments or GP services that were saved.

**Results** 56 patients were seen in the clinic in the one month analysed. Of the 56 patients, 25 (44.6%) were discharged directly from RACC with no investigations, 4 (7.1%) had no investigations but had cardiology clinic follow-up, and 27 (48.2%) required further cardiac investigations. 23 of this 27 (85.2%) had invasive tests, 3 (11.1%) had non-invasive and 1 had both (3.7%). 4 of these were found to be abnormal and subsequently 1 was referred for coronary artery bypass grafting. The remainders were managed medically.

Re-presentations were few, with 1 patient attending ED over a weekend whilst waiting for the appointment with further troponin negative chest pain. There were 3 re-presentations within 3 months following RACC review. Of these, 1 admission was due to a headache and syncope, one was due to angina whilst waiting for coronary angiography and the third was due to further troponin negative chest pain. There were no adverse events.

It was estimated that 33 overnight admissions were avoided. Furthermore, 49 of the patients referred may

alternatively have been managed via the primary care fast access chest pain service. This would have required a GP appointment and referral therefore involving significant primary care resources.

**Conclusions** The RACC model provides a safe and effective pathway for diverting care of low risk patients presenting acutely with chest pain of presumed cardiac origin to the outpatient department. The low rate of re-presentations without any adverse events demonstrates the safety of this approach. Clinical outcomes within the 3 months were excellent with only 1 patient requiring revascularisation. Furthermore, there were significant service efficiencies delivered with benefits evidenced across both primary and secondary care.

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## THE DIAGNOSIS OF STABLE ANGINA: IS THERE STILL A ROLE FOR THE RAPID ACCESS CHEST PAIN CLINIC?

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**Introduction** Stable angina is diagnosed on the basis of clinical assessment and diagnostic testing. Angina-type pain is defined by: (i) constricting discomfort in the chest, neck, shoulders, jaw, or arms, (ii) precipitated by physical exertion, and (iii) relieved by rest or glyceryl trinitrate (GTN). Typicality of these symptoms, in addition to risk factor burden, is used to estimate the pre-test probability of coronary artery disease, guiding investigation and management. However, it remains unclear whether Rapid Access Chest Pain Clinic (RACPC) assessment provides advantages to that in primary care. We studied patients with suspected stable angina, to evaluate concordance between GP and cardiologist findings, and identify barriers to diagnosis in primary care.

**Methods** A database of all patients reviewed in a high-volume, cardiologist-led RACPC was prospectively maintained, from Jul 2012–Jan 2015. Standardised GP referral proformas were used to code typicality of angina pain (3 features – typical angina; 2 features – atypical angina; 0 or 1 feature – non-angina), and missing data identified. Concordance between GP and cardiologist assessment was ascertained using Cohen's kappa (K) and Bland-Altman plots. Age, sex, typicality of angina, presence of risk factors (smoking, diabetes or hyperlipidaemia) and ECG criteria (presence of Q-waves or ST/T changes) were used to estimate GP and cardiologist-calculated pre-test probabilities, compared using Student's *t*-test. Thematic analysis of free-text clinical details was performed, to explore reasons for missing data. All data are presented: mean [SD].

**Results** Data regarding *n* = 1 928 referrals were available. After exclusion of cases for which referral was *via* non-structured or incomplete letter, 1 634 cases were included in the final analysis. Agreement between GP and cardiologist in typicality of angina was poor (723/1 634, 44.2%; K = 0.235 *p* < 0.001; Table 1, Figure 1). Pre-test probability calculated using GP assessment was greater than that assessed by cardiologist (54.7 [25.0] *vs.* 40.9% [22.2]; *p* < 0.001), although a strong positive correlation was observed ( $R^2 = 0.56$ , *p* < 0.001; Figure 2). GP referral data regarding character of chest pain were missing in *n* = 10 (0.6%). Thematic analysis demonstrated this was primarily due to non-pain related symptoms, predominantly breathlessness. No data regarding relationship to exertion were available in *n* = 57 (3.5%), due

**Abstract 80 Table 2** Outcomes at 2 year follow up for UK vs. rest of the CLARIFY population

Outcome	UK %	Rest of CLARIFY population %	Hazard ratio (95 % Confidence interval); p value
All cause mortality	3	3	0.96 (0.75, 1.23); 0.76
Cardiovascular death	1.3	1.5	0.89 (0.62, 1.28); 0.52
MI	2.6	1.6	1.56 (1.19, 2.03); 0.0012
Non-fatal stroke	1.3	0.7	1.72 (1.16, 2.53); 0.0063