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Abstract Table 1 Detailed breakdown of CABG waiting times (median days) for patients during different study periods

<table>
<thead>
<tr>
<th>Time period</th>
<th>Original admission to operation (Days)</th>
<th>Original admission to referral (Days)</th>
<th>Referral to operation (Days)</th>
<th>Referral to surgical review (Days)</th>
</tr>
</thead>
<tbody>
<tr>
<td>November 2016 – January 2017</td>
<td>13</td>
<td>3</td>
<td>10</td>
<td>1</td>
</tr>
<tr>
<td>July 2019 – September 2019</td>
<td>11</td>
<td>3</td>
<td>7</td>
<td>1</td>
</tr>
<tr>
<td>April 2020 – June 2020</td>
<td>11</td>
<td>2</td>
<td>8</td>
<td>1</td>
</tr>
</tbody>
</table>

Abstract Figure 1 Causes of long CABG waiting times between July 2019 – September 2019.

Abstract Figure 2 Causes of long CABG waiting times between April 2020 – June 2020.

Conclusions Median waiting times for urgent CABG I significantly improved by implementing the SOW work pattern and daily MDMs. Despite this, 40% percent still fail to have surgery within the recommended 7 days. This reflects a national picture, highlighted by the national audit of adult cardiac surgery (NACSA) and suggests that further improvements will require substantial resources.

Conflict of Interest None

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REAL WORLD OUTCOMES OF iFR GUIDED PCI IN A SINGLE CENTRE

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Introduction Large, randomized studies have shown that resting indexes (derived from the pressure measurement at rest without the administration of adenosine, iFR) have diagnostic accuracy similar to that of FFR as independent measures of ischemia. Our study was to assess real world outcomes at 12 months following iFR Guided PCI at East Lancashire Hospitals NHS Trust.

Methods This was a retrospective observational study which included adult patients ≥18 years who underwent angiography with iFR performed at the discretion of the operator over a 12-month period, from 1 January 2018 to 31 December 2018. Data were collected on baseline characteristics, indication, target vessels, binary iFR result (positive ≤ 0.89 vs negative > 0.89) and final treatment. The primary outcome was major adverse cardiac events at 12 months follow up.

Results In total 136 patients (75% male) underwent a total of 137 procedures. The majority (85%) of patients had ≥2 cardiovascualr risk factors, with stable angina the commonest indication (50%), iFRs were performed in 226 vessels of which 113 (50%) were positive and treated by stenting (n=70, 61.9%), CABG (n=24, 21.2%), balloon angioplasty (n=3, 2.7%) and no treatment (n=16, 14.2%). None of the iFR negative lesions (n = 113) had any intervention or associated adverse outcomes during the follow up period. At 12 months, 8 major adverse cardiac events were recorded with 1 cardiovascular death due to the index event, 1 non-cardiovascular death, 4 unstable angina presentations due to de novo lesions and 2 cases of non-fatal MI due to de novo lesions and known iFR+ lesion, respectively.

Conclusion A negative iFR conferred an excellent event-free short-term outcome.

Conflict of Interest None

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4-METRE-GAIT SPEED AS A PREDICTOR OF 5-YEAR SURVIVAL AFTER ACUTE MYOCARDIAL INFARCTION: A PROSPECTIVE COHORT STUDY

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Introduction Patients undergoing primary percutaneous coronary intervention (PCI) for myocardial infarction (MI) are increasingly frail and multi-morbid and modelling patient outcomes is important with limited healthcare resource. Recognised parameters and scores predicting survival after PCI can be complex. The 4-Metre Gait Speed (4MGS) is simple, quick, low-cost and requires little training. A gait speed of <0.8 m/s is associated with increased mortality, independent of age in the general population, and with higher cardiovascular events and readmission post-MI. We evaluated the 4MGS as a predictor of mortality following PCI. Methods 560 patients, who had undergone PCI from December 2013 – January 2016 and survived to discharge were recruited and divided into slow (<0.8 m/s) and fast (≥ 0.8 m/s) walkers according to 4MGS. Recognised predictors of mortality following PCI including age, renal disease, diabetes and left ventricular ejection function (LVEF) were recorded. The primary and principle secondary outcome measures were the ability of the 4MGS at discharge after PCI to predict all-cause mortality at 1 and 5-years respectively. Mortality traces using the NHS Demographic Batch Service were run at 1 and 5-years. Cox proportional hazards regression analyses were conducted for mortality outcomes at 1 and 5-years. Univariate analyses for recognised predictors of mortality were
conducted. Receiver operator characteristic (ROC) curves calculated the area under the curve (AUC) to determine the discriminate ability of each variable in predicting mortality.

**Results** At baseline, 457 patients (81.6%) were male with a mean age of 61.4 years. 94 (16.8%) were slow-walkers. At 1-year, 10 deaths were observed, with a trend towards higher mortality in slow vs fast walkers (4.3% vs 1.3%, HR=3.3, 95% CI 0.93, 11.7 p=0.06). At 5-years, 50 deaths were observed, with significantly higher mortality in slow vs fast walkers (19.1% vs 6.74%, HR=3.05, 95% CI 1.71, 5.45 p<0.0001) (Figure 1). Age >=65, LVEF <40% and renal disease but not diabetes were all associated with increased 5-year mortality. ROC analyses revealed the discriminate ability of each variable to predict mortality, from highest to lowest AUC; age >=65 (0.66), gait speed <0.8 m/s (0.61), LVEF <40% (0.57) and renal disease (0.52) (Figure 2). 4MGS provided no significant additive discriminate ability to age alone (p=0.11).

**Conclusions** The 4MGS is a simple point-of-care test which was able to predict 5-year mortality at discharge post PPCI. It demonstrated a higher predictive power than traditionally recognised cardiovascular risk factors, including diabetes, renal disease and LVEF. Age was the only risk factor with a stronger predictive power for mortality than 4MGS. 4MGS provided a 0.05 AUC improvement to age though this did not reach statistical significance.

**Conflict of Interest** None

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**INVASIVE CORONARY PHYSIOLOGY ASSESSMENT - SAFETY OF PRESSURE WIRE STUDY AS A DIAGNOSTIC TOOL AT A DISTRICT GENERAL HOSPITAL**

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**Introduction** Pressure wire study (PWS) is a well-established tool for the assessment of the haemodynamic significance of intermediate coronary artery stenoses (40–90%). This, according to the 2018 ESC myocardial revascularization guidelines, has Class IA indication when evidence of ischaemia is not present. It can be used to calculate the fractional flow reserve (FFR), instantaneous wave-free ratio (iFR) or resting full cycle ratio (RFR) to guide revascularization decisions, with similar diagnostic accuracy between the tests. Despite the above, the utilization of PWS varies across the U.K., as reflected in the recent BCIS annual data. One possible explanation might be the fact that there are still numerous centres in the U.K, where diagnostic only coronary angiography lists take place, precluding the use of PWS at the same sitting. In our study, we aimed to review the safety of PWS as an invasive diagnostic tool and determine whether it could be incorporated in diagnostic only lists for the assessment of coronary stenoses.

**Methods** A retrospective assessment of all patients who underwent PWS at King’s Mill District General Hospital (Mansfield) between August 2018 - September 2020 was carried out. All patients were followed up until May 2021 (follow up period 8–33 months). Our study was registered with the local audit office. Data were obtained from our local and regional electronic records. For all patients, the following data were collected and analysed: demographics, mode of presentation, type, result and outcome related to the PWS, complications, re-attendance and outcome, as well as mortality.

**Results** A total of 194 patients underwent PWS during the period outlined. The majority of patients (57%) presented electively. Of those, 21 (19%) were booked as a repeat procedure, following their initial angiogram. LAD was the main vessel involved (60%). 56% of the patients had FFR and the rest either IFR or RFR. 29% of the studies were positive, resulting in revascularization. Only one minor complication was recorded (adenosine related bronchospasm) and treated successfully. Of note, 28 patients had a coronary angiogram in the 12 months preceding the index study and the index lesion had been deemed insignificant based on the angiographic appearance. 32% of these patients tested PWS positive. A total of 53 patients represented. Only 14 (7%) required...