central death notification and publicly accessible online death notifications. Proximity from home address to the nearest PPCI centre was determined using Google Maps. Statistical analyses were performed using Stata.

**Results** 7,486 STEMI patients were identified from January 2013 – March 2018. 6,612 were included in the analysis. Minimum follow up was 3 years, median follow up was 5.5 years. 4,040 received timely PPCI, 2,162 delayed PPCI, 335 t-PA. Baseline characteristics are shown in table 1. There was no difference in survival between the timely PPCI (84.7%) and t-PA groups (84.2%) (HR 0.93, 95%CI 0.71–1.25; Log-Rank p=0.62). There was increased mortality in the delayed PPCI (80.6%) in comparison with both timely PPCI (HR 1.5, 95%CI 1.16–1.9; Log-Rank p<0.000) and t-PA groups (HR 1.23, 95%CI 0.93–1.66; Log-Rank p=0.16), figure 1, 2.

**Conclusion** Patients who were treated with a pharmaco-invasive strategy had lower all-cause mortality on long term follow up versus those who received PPCI outside of the target treatment window. Given the high proportion of patients who received delayed PPCI (33%), consideration should be given to expanding a pharmaco-invasive approach to patients who are unlikely to receive timely PPCI.

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**Oral abstract presentations 2**

### 12 PREVALENCE OF TRANSTHYRETIN AMYLOID CARDIOMYOPATHY (ATTR-CM) IN UNDIFFERENTIATED HFpEF


**Introduction** Transthyretin amyloid cardiomyopathy (aATTR-CM) is an increasingly recognised cause of heart failure with preserved ejection fraction (HFpEF) which may be diagnosed non-invasively with SPECT/CT 99m-Tc-DPD scintigraphy. The diagnosis of aATTR-CM has assumed greater relevance with the growing availability of new targeted treatments. However, there are relatively few studies on the prevalence of aATTR-CM in undifferentiated HFpEF. Aim To determine the prevalence of patients with aATTR-CM in an undifferentiated HFpEF cohort by DPD scintigraphy.

**Methods** Tc-DPD scintigraphy scan was prospectively performed in patients aged > 60 years attending the Mater Misericordiae University Hospital (MMUH) with a diagnosis of HFpEF (EF>50%) who were New York heart association (NYHA) class II-IV. All patients had an echocardiogram performed at recruitment or within the previous 6 months. Patients with a history of AL amyloid, known cardiac amyloidosis, a history of monoclonal gammopathy of unknown significance (MGUS), significant valvular pathology, recent acute coronary syndrome or uncontrolled arrhythmia were excluded.

**Results** 81 patients were enrolled, 44 patients (54%) female, 37 patients (43%) male. Mean age 78, mean EF 54%, mean BNP 864 pg/ml, 53 (57%) hypertensive, 53% had atrial fibrillation, 49.5% NYHA II, 49.5% NYHA III, 1% NYHA IV. Heart failure hospitalisation within 1 year occurred in 48 patients (59%). The DPD findings were as follows: Perugini 0: 67 (82.7%), Perugini 1: 7 (8.6%), Perugini 2: 4 (4.9%), Perugini 3: 3 (3.7%). Perugini 2 and 3 patients differed significantly from the remaining cohort by age, gender, QRS width and septal thickness (table 1). Posterior wall thickness, LVDD and left atrial volumes did not differ between cohorts. All Perugini 2 and 3 patients underwent genetic testing and were confirmed as wild-type (WT).

**Conclusion** This study identified a prevalence of WT aATTR-CM of 8.6% of an undifferentiated HFpEF cohort. There was a striking association with age and gender with 17% of males in this group found to have WT aATTR-CM.

### 13 A CT CORONARY ANGIOGRAPHY FIRST STRATEGY IN PATIENTS DETERMINED TO HAVE AN INDICATION FOR INVASIVE CORONARY ANGIOGRAM: A META-ANALYSIS

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**Introduction** Invasive coronary angiogram (ICA) is the gold standard for the diagnosis and treatment of cardiac chest pain; however, there are associated risks. Furthermore, over one million ICAs in Europe each year do not progress to intervention. The application of CT Coronary angiography (CTCA) as a gatekeeper for those with an indication for a coronary angiogram is an attractive non-invasive alternative that could reduce non-interventional ICA. This metaanalysis aims to identify high-quality randomised controlled trials comparing a CTCA first approach in patients with an indication for ICA.

**Methods** A comprehensive search of Medline, Embase and PubMed was performed for randomised controlled trials comparing direct to ICA or CTCA first for stable patients with an established indication for ICA regardless of pre-test risk. Two independent reviewers completed the search that yielded 1908 results, 1672 after duplicates were removed. Of these, 186 were selected for abstract review and 42 for full-text review. Trials were included if they were randomised control trials, reporting clinical outcomes and included patients with an indication for ICA. Studies were excluded if they necessitated any functional test before randomisation, compared multiple imaging modalities, were not eligible for ICA or if they included patients with possible acute coronary syndrome. The four included randomised trials were Discharge, CAT-CAD, Conserve and CADMAN. Primary outcomes were the rate of PCI and CABG. Secondary safety outcomes included MACE, diagnosis of obstructive disease and bail-out ICA in those originally randomised to the CTCA group.

**Results** Meta-analysis of the randomised trials demonstrated a significant decrease in PCI (OR 0.72 95% CI [0.62, 0.89]) and CABG rates (OR 0.6 95% CI [0.42, 0.85]) with a CTCA first approach. There was no significant difference in the rates of MACE (OR 0.83 [0.61, 1.12]) with numerically fewer events in the CTCA arm. There was no difference in obstructive coronary artery disease rates between the two arms. Rates of a subsequent ICA in the CTCA group were 8.6% (244/2819) Vs 98% (2645/2694) in the ICA group (figure 1).

**Conclusion** This meta-analysis of 5613 patients with an indication for an ICA demonstrates a significant reduction in rates of PCI and CABG when managed with a CTCA first approach. There was no significant difference in rates of MACE between the two approaches. A CTCA first approach may represent a less invasive first-line diagnostic technique for many patients.