Conclusions There is an association, independent of age and sex, between serum vitamin D and physical health-related quality of life at both presentation and at 1-year follow-up after invasive management of NSTEACS in high-risk older adults. Although vitamin D deficiency has not been shown to predict MACE, it may play a plausible role in the significant morbidity experienced by older adults with cardiovascular disease.

Conflict of Interest None to declare

Conclusion Initial experience and short-term clinical follow-up from IVL use appears safe and effective PCI strategy for dealing with calcified coronary lesions. A high success rate was observed with low event rates and procedural complications. We are enrolling more patients from other centres as part of a larger multi-centre registry and will be able to report this with higher numbers and longer follow-up at BCS 2020.

Conflict of Interest nil

Introduction Sub-optimal stent expansion due to coronary calcification augments the risk of restenosis and stent thrombosis. Calcium modification is generally achieved by rotational atherectomy or specialized balloons (scoring and cutting balloons), which carries risk of complications. Intravascular lithotripsy (IVL) appears safe and also aids in cracking deep seated adventitial calcium. Although, there are reported studies on this novel technology, there is a lack of real-world data. In this study, we report the experience from 4 centres that undertake high-volume complex coronary interventions.

Methods We enrolled all patients treated with IVL between September 2018 and October 2019 at 4 centres (1 in UK and 3 in Italy). Procedural success and complication were assessed. The clinical outcomes evaluated were: cardiovascular death, target vessel MI (TVMI), target lesion revascularisation (TLR) and MACE (composite of cardiovascular death, TVMI and TLR).

Results During the study period, 100 lesions (in 94 patients) with a mean age of 71±9.7 years (range: 30–88) were treated using IVL. 70% (n=70) were male, 85% (n=80) had hypertension, 51% (n=48) had diabetes and 20% (n=19) had chronic kidney disease. Acute coronary syndromes accounted for most cases followed by right coronary artery (56%) and MACE (composite of cardiovascular death, TVMI and TLR).

Background and Objective Despite availability of sensitive diagnostic tests, the mortality and morbidity related to pulmonary embolism (PE) continues to cause tremendous economic burden. The objective of this service evaluation was to compare the length of stay and safety profile of newly adopted Ultrasound Assisted Catheter Directed Thrombolysis (UACDT) for patients with sub-massive PE and right heart strain to a historic control group of patients with a primary discharge diagnosis of PE.

Methods and Results The historic control group was made of patients identified with a primary discharge diagnosis of PE in the calendar year 2016 (131 patients). Of these, 75 (57.3%) patients had sub-massive PE defined as radiologically large thrombus burden and evidence of right heart strain seen on CT pulmonary angiogram (CTPA). Only patients with a length of stay (LOS, defined as date of discharge – date of scan in days) > 2 days were included in the analysis. The final historical control group was made of 68 (51.1% of the total cohort) patients, mean age = 67.5 ± 17.9 years, 28 (36.8%) males, mean pulmonary artery pressure (PAP) on echo = 37.3 ± 17.7 mmHg (echo data available in 74.7% of the cohort).

These patients were compared against the UACDT group. To be eligible for UACDT, patients needed to have sub-massive PE with radiologically large thrombus burden, right heart strain seen on CTPA and echocardiogram and elevated Troponin and or BNP on blood tests. The UACDT group comprised of 25 patients (mean age = 61.2 ± 14.1 years, 19 (76%) male, mean PAP 38.6 ± 22.3 mmHg on echo, all patients had echo data available prior to the procedure) that underwent the procedure at our district general hospital between June 2018 and Sep 2019. Time to procedure was a mean of 1.2 days (median of 1day with min of 0 and Max of 5 days).

There was no death in the UACDT cohort whilst 3 deaths (3.9%) were observed in the historical control group (p = 0.6). Death or readmission occurred in 8 (10.5%) of the historical control group compared to 1 (4%) in the UACDT group (p = 0.4). One (4%) patient had haematemesis post UACDT with new diagnosis of gastric Cancer. There were 3 (12%) patients with new diagnosis of cancer among UACDT group and further 2 with known metastatic cancer. The LOS numerically lower in the UACDT group compared to the historical
control group which was not significantly different (mean difference = 2.4 days, 95% CI = -0.5, 5.3 days, p = 0.1).

Conclusion UACDT is a safe procedure and although there is no difference in LOS with the procedure there is a potential that this difference will become more important as confidence with the procedure increases. There is a 12% incidence of occult cancer in this group of patients.

Conflict of Interest no

39 RELEVANCE OF THE ISCHEMIA TRIAL TO REAL-WORLD CLINICAL SERVICES

1 Alexander Gall, 1 Georgia Connolly, 1 Jessica Mora, 1 Mavin Kashyap, 1 Amardeep Dastidar, 1 Nikhil Joshi, 1 Stephen Dorman, 1 Kalpa De Silva, 1 Julian Strange, 1 Tom Johnson, 1 Alexander Gall, 1 Georgia Connolly, 1 Jessica Mora, 1 Mavin Kashyap, 1 Amardeep Dastidar, 1 Nikhil Joshi, 1 Stephen Dorman, 1 Kalpa De Silva, 1 Julian Strange, 1 Tom Johnson, 1 Eva Sammut. 1 Bristol Heart Institute, 1 University of Bristol

Background The recently presented ISCHEMIA trial demonstrates that optimal medical therapy (OMT) is not inferior to an early interventional approach for patients with stable angina. These results have the potential to significantly impact on future care pathways. In the UK, the rapid access chest pain clinic (RACPC) is increasingly used as an open access resource. This study compared how the ISCHEMIA study may apply to real-world clinical services.

Methods Electronic notes of patients assessed in our high-volume Rapid Access Chest Pain Clinic (RACPC) within a 12-month period (2018–19) were reviewed. Patients retrospectively meeting key inclusion criteria for the ISCHEMIA trial were selected. Information on demographics, symptoms, initial investigations and management were obtained.

Results 2416 patients were assessed in the RACPC during the study period. Of these, 378 (15.6%) presented with symptoms thought to represent typical anginal chest pain (CP).

Within this group, 158 patients (41.8%) were excluded (62 due to ACS, 91 due to known CAD, 3 due to known severe LV impairment, 2 due to eGFR <30mL/min). This resulted in a total of 220 patients meeting key inclusion criteria of the ISCHEMIA trial, representing 58.2% of the typical chest pain population but only 9.1% of all patients seen in the RACPC. These patients had a median age of 60 years, 96 (44%) female, 44 (20%) had diabetes, 119 (54.1%) had high cholesterol, 104 (47.3%) had a family history, 115 (52.3%) had hypertension and 32 (14.5%) were smokers.

From these 220 patients, 48 (21.8%) had a CT coronary angiogram (CTCA) as their first line investigation (42 completed). Of these patients, 1 (2.4%) patient had findings suggestive of significant left main stem (LMS) disease.

18 (8.2%) patients had stress echocardiography or stress perfusion CMR requested as their first line investigation (15 completed), 4 were positive for inducible ischaemia. 143 (65%) patients underwent invasive coronary angiogram (ICA) as their first line investigation (112 completed). In total 43 patients (19.5%) patients subsequently underwent revascularisation (8 patients for LMS disease, 11 patients due to multivessel disease, 24 patients treated with PCI). The median wait time for a CTCA was 55 days compared to 165.5 days for ICA.

See Table 1 for more details.

Conclusion In the real-world, patients present with undifferentiated chest pain, consequently the outcomes of the ISCHEMIA trial must be considered cautiously. Within our cohort of 2416 patients, only 220 patients met key inclusion criteria for the trial. Our patients were younger, more frequently female and not diabetic. Referral for invasive tests was the most common pathway, however service pressures resulted in a significant delay to treatment. Ultimately, only 19.5% received revascularisation, compared to 80% of patients in the invasive arm of ISCHEMIA. It is unclear how the results of the ISCHEMIA trial will ultimately impact on UK practice, but it is clear that OMT plays a central role.

REFERENCES
1. Hochman JS, Reynolds HR, Bangalore S, O’Donnell IJ, Starling R, et al. Baseline characteristics and risk profiles of participants in the ISCHEMIA randomized clinical trial. JAMA Cardiol. 2019 Mar 1;4(3):273–86. Available from: https://pubmed.ncbi.nlm.nih.gov/30810700
2. ISCHEMIA Research Group. ISCHEMIA Study Results [Internet]. 2020 [cited 2 Mar 2020]. Available from: https://www.ischemiatrial.org/

Conflict of Interest None

40 SAPHENOUS VEIN GRAFT RADIO-OPAQUE MARKERS AND FEMORAL ACCESS REDUCE CONTRAST USE IN CORONARY ANGIOGRAPHY AND GRAFT STUDIES

Elshaddai Game, Victor Cheng, Mihica Dorsch, Ali Raza, Poo Kee Cheung, Benjamin Tyrrell, Neil S Brass. CK Hui Heart Centre

Background Saphenous vein grafts (SVG) are often employed for bypass in addition to internal mammary arteries during CABG operations. Despite the improvement in surgical