indications for ordering a TTE and used BSE Guidance to classify the indications as appropriate, inappropriate, or unclear.

Results Thirty-two requests for TTE were received over the study period. The median patient age was 74 years [range 32–93 years]. Just over half of the patients 17/32 (52%) were male. The most common indications for TTE were to evaluate valvular pathology 11/32 (34%); either initial assessment 5/32 (16%) or surveillance of known valvular disease 6/32 (18%). The second most common indication was to assess cardiomyopathy 8/32 (25%), followed by evaluation of arrhythmias, palpitations or syncope 4/32 (13%). When compared with BSE Guidance, 18 (56%) requests were appropriate and 11 (34%) were inappropriate. Three (9%) requests were deemed unclear due to the lack of information contained in the request.

Conclusion An almost equal number of females and males were referred for TTE. The median age reflects the older cohort of patients at our hospital. Valvular pathology; either for diagnostic assessment or repeat evaluation was the most common indication for echocardiography. More than one-third of TTE requests received were not clinically indicated and combined with unclear requests, this amounted to more than 40% of requests. We would recommend implementation of BSE Guidance at our hospital to provide guidance for physicians making requests and ensure appropriate utilisation of limited resources for clinically indicated echocardiograms.

51 NEOINTIMAL TISSUE COVERAGE AND CHARACTERIZATION ASSESSMENT USING OPTICAL COHERENCE TOMOGRAPHY SURVEILLANCE SIX MONTHS AFTER IMPLANTATION OF BIORESORBABLE SCAFFOLDS VERSUS CONVENTIONAL EVEROLIMUS ELUTING STENTS IN ISAR-ABSORB MI TRIAL

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Background Bioresorbable scaffolds (BRS) were introduced to overcome the limitations of permanent metallic stent implantation. Optical coherence tomography (OCT) can provide important insights on vessel wall healing at follow-up. We compared OCT-assessed healing at 6 months after implantation of everolimus-eluting BRS and everolimus-eluting metallic stents (EES) in patients treated for acute myocardial infarction (AMI).

Methods ISAR-Absorb MI is a multicentre, 2:1 randomized trial comparing outcomes of patients with AMI stented with BRS or conventional EES. Angiographic surveillance was planned for all patients at 6–8 months follow-up; surveillance with OCT at follow-up was discretionary. For the present analysis, patients with OCT follow-up were included and images analyzed at a core laboratory. Tissue characterization using grey-scale signal intensity (GSI) analysis was done for neointimal regions of interest (ROI) with thickness of 100 to 400 µm. ROI's were classified as mature using a cut-off GSI

score of 109.7. Generalized linear mixed model was used as appropriate.

Results 70 patients in the BRS arm and 32 patients in the EES arm had OCT available for analysis at a median follow-up of 216 days. Minimum lumen area [5.13 (3.95, 6.70) vs. 4.93 (3.84, 6.99) mm²] and minimum stent area [5.78 (4.88, 7.34) vs. 6.39 (4.77, 7.45) mm²] were comparable between BRS and EES. In total 2,237 frames with 19,827 struts were assessed. Overall strut coverage was better with BRS compared to EES (97.5% vs. 90.9%, $p < 0.001$), while malapposed struts (1.1% vs. 0.5%, $p = 0.51$) were more common with EES. Neointimal coverage was comparable in both stent groups [85.5 (61.9, 124.1) vs. 69.5 (32.7, 127.5) µm in BRS and EES groups, $p = 0.20$]. GSI analysis in 95 cases showed that immature ROIs were numerically more common in the EES group as compared to the BRS group (75.4 vs. 57.0%; $p = 0.35$).

Conclusions In selected patients undergoing OCT imaging at 6–8 months after implantation of BRS and conventional EES for AMI, we observed generally favorable healing characteristics with high rates of strut coverage and fewer areas of immature neointimal areas with BRS in comparison to EES.

52 OUT OF HOSPITAL CARDIAC ARRESTS IN YOUNG ADULTS (16–35 YEARS); A SIX-YEAR REVIEW OF THE IRISH OUT-OF-HOSPITAL CARDIAC ARREST REGISTER

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Introduction Out-of-hospital cardiac arrests (OHCA) in the young population have only been examined in a limited number of regional studies. Hence, we sought to describe OHCA characteristics and predictors of survival to hospital discharge for young Irish adults.

Methods An observational analysis of the national Irish out-of-hospital cardiac arrest register for all OHCA's aged 16 to ≤35 years between January 2012 and December 2017 was performed. Multivariable logistic regression was used to determine the independent predictors of survival to hospital discharge.

Results A total of 1,005 OHCA's aged 16 to ≤35 years (24.3% female, median age 27 years [IQR 23–32]) had resuscitation attempted over the study period. OHCA location was most commonly in the home (61.3%, $n = 616$) and a minority of OHCA's occurred in areas of sport or recreation (3.5%, $n = 35$). A non-medical aetiology was most prevalent (59%, $n = 593$) with asphyxiation, trauma and drug overdoses

Abstract 52 Figure 1 Survival to hospital discharge based on OHCA aetiology ($n = 1,005$)