Results During this period, there were 24 patients who were treated with IVL prior to stent implantation/PCI. 16 of them were males (67%). Mean age of all patients was 71 (range 54–86). Indications for PCI were Acute Coronary Syndrome (ACS) in 11 patients (46%), stable angina in 13 patients (54%), PCI was performed in the context of investigating severe LVSD that was incidentally discovered after PEA arrest and IVL was also used to further expand an incompletely expanded stent without restenting in 1 patient. The rest of the cases were treated with IVL in the context of severe calcification seen with adjunctive use of OCT and or IVUS. IVL was most commonly used in the left anterior descending coronary artery and Right Coronary artery in (50%) – (46%) respectively, while it was used in to treat the Circumflex in only one patient (4%). Angiographic and IVUS/OCT imaging guided success (<20% residual stenosis) occurred in all cases except one (96%). Only 1 case had an IVL related complication (4%) with a balloon bursting during the first energy delivery at 6 atmospheres of pressure with no haemodynamic sequelae. Another case was complicated by a limited distal vessel wire dissection managed conservatively.

Conclusion From our initial experience IVL appears to be a safe and efficacious adjunctive modality in coronary calcium modification to optimise stent delivery and expansion.

Conflict of Interest None
modification. This case demonstrates the role of RotaShock in primary percutaneous coronary intervention. In this case we were able to perform complex calcium modification techniques in a patient in extremis requiring mechanical circulatory support with excellent radiological and ultimately clinical result.

Conflict of Interest No conflicts to declare.

Allied health professionals/Nursing/Health scientists

NURSE-LED SEDATION IS SAFE AND EFFECTIVE, SHORTENING PROCEDURE TIMES, AND IMPROVING ACCESS FOR SELECTED TRANSCATHETER AORTIC VALVE IMPLANTATION (TAVI) PATIENTS

Background Aortic Stenosis is the commonest single cardiac valve lesion and Transcatheter Aortic Valve Implantation (TAVI) is now the dominant treatment modality for intervention. The great majority of TAVI procedures are performed under sedation rather than general anaesthetic (GA) however the need for anaesthetist with operating department practitioner support can impose limitations on scheduling and cost thereby limiting access for patients. Method: We implemented a nurse-led TAVI sedation program at a regional centre for selected patients after a dedicated training and mentoring program with anaesthetic support available. From July 2018 until September 2021 inclusive we reviewed consecutive cases with regard to Nurse-led sedation (NLS) vs Anaesthetist-led sedation (ALS). 30-day British Cardiovascular Intervention Society (BCIS) risk estimation, clinical outcomes, procedure duration and length of hospital stay were assessed. Analysis was with the Chi2 test for categorical variables and independent samples t-test for continuous variables.

Results 646 patients were identified with 22 undergoing GA and 624 (97%) undergoing sedation. Of the sedation patients, 212 (34%) underwent NLS and 412 (68%) underwent ALS. The BCIS 30-day risk scores were similar in both groups (NLS 2.2 vs ALS 2.3 p=0.56). Procedural success was similar between the groups (NLS 100% vs ALS 98.5% p=0.07). For the NLS cases, anaesthetic support was sought with telephone discussion in 3 cases (1.4%) and physical attendance in a further 8 cases (3.8%). Clinical outcomes were similar between the groups: (NLS vs ALS) 30-day mortality 1.9% vs 3.7% (p=0.22), Conversion to GA 1.9% vs 2.4% (p=0.67), Vascular access major bleeding 3.3% vs 4.1% (p=0.33), Moderate/severe aortic regurgitation: 4.8% vs 4.2% (p=0.75), Stroke: 4.2% vs 1.7% (p=0.13), New permanent pacemaker implantation 9.4% vs 12.9% (p=0.26). Procedural duration was significantly less with NLS vs ALS (90 mins vs 111 mins p=0.001). Length of hospital stay was similar 3(2–5) days vs 4(2–5) days (p=0.44).

Conclusion This study suggests that an NLS program can be safely introduced into routine TAVI practice with appropriate training and case selection by the Heart Team. Such an approach appears to deliver similar outcomes to ALS with shorter procedural times. It is likely that with increasing experience a greater proportion of TAVI patients will be suitable for NLS. This approach should deliver significant savings in terms of anaesthetic resources alongside more flexible arrangements for scheduling, increased capacity, and improved access for patients.

Conflict of Interest none

OXYGEN UPTAKE EFFICIENCY SLOPE - A VALUABLE SUBSTITUTE FOR PEAK VO2?

Introduction Cardiopulmonary exercise testing (CPEx) provides valuable diagnostic and prognostic cardiopulmonary function data. However, in clinical setting a maximal test is not always achievable. The Oxygen Efficiency Uptake Slope (OUES) has been proposed as a possible submaximal measure of cardiopulmonary function as it remains relatively stable during the final quartile of the exercise test. This study explored the validity of OUES as a surrogate marker for