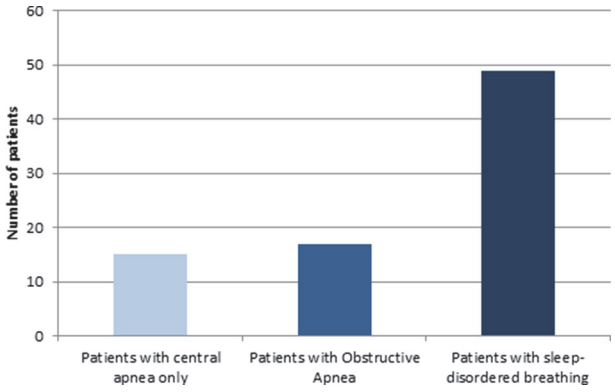
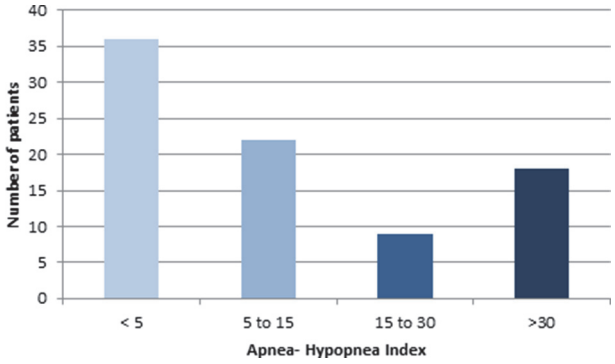



Abstract 4 Figure 2




Abstract 4 Figure 3

**Conclusion** Given the paucity of available treatments for HCM and noting that treatment of SDB in heart failure with CPAP has been shown to attenuate diastolic dysfunction, this represents a potentially novel avenue of treatment for patients diagnosed with HCM. OSA is known to increase risk factors that contribute to morbidity and mortality in HCM including arrhythmias, myocardial infarction and sudden cardiac death. Previous studies have suggested a higher prevalence of non-sustained ventricular tachycardia in HCM patients diagnosed with OSA likely explained by excessive sympathetic activation. Systemic blood pressure and sympathetic activity have also previously been seen to improve with CPAP therapy and there is evidence to suggest CPAP therapy may reverse or slow progression of left ventricular hypertrophy in HCM patients with SDB. Our study suggests a significantly higher prevalence of SDB in HCM patients when compared to the general population and whether treatment of SDB in HCM improves outcomes requires further investigation which our prospective study aims to answer.

**Conflict of Interest** None

## 5 COMPARISON OF TREATMENT OUTCOMES IN VERY ELDERLY PATIENTS (>85YEARS) WITH SEVERE SYMPTOMATIC AORTIC STENOSIS

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**Introduction** Due to the demographics of our patient population our institution has a high incidence of very elderly (>85 years) patients with severe symptomatic aortic stenosis. We examined the outcomes of these patients following trans-catheter aortic valve implantation (TAVI), surgical aortic valve replacement (SAVR) or medical therapy.

**Methods** We included all patients >85 years of age with symptomatic severe aortic stenosis referred to our tertiary centre for consideration of aortic valve intervention between 2009 and 2016. Following assessment by the TAVI team (2 cardiologists and 2 cardiac surgeons) patients underwent SAVR or TAVI. Patients deemed unsuitable or refusing intervention had medical therapy. Data was obtained from electronic databases and clinical case notes.

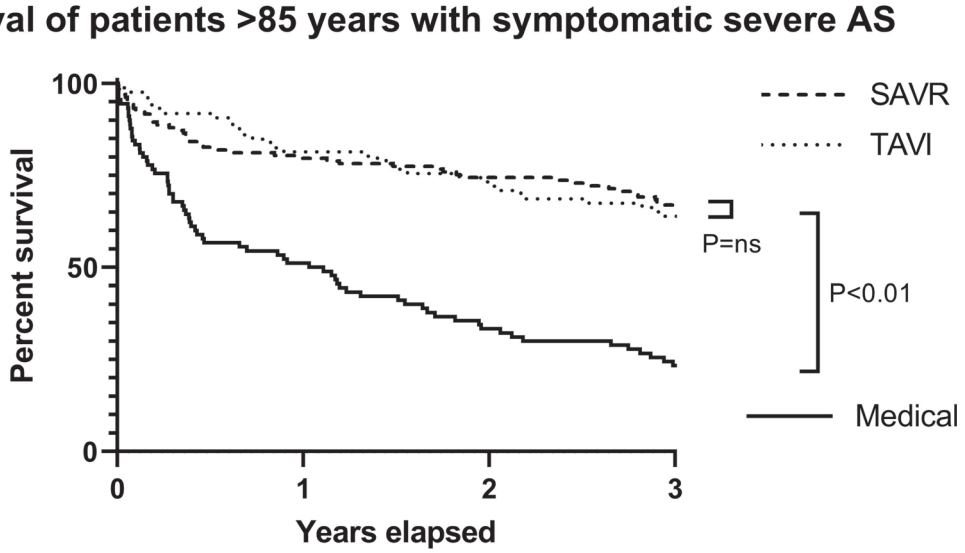
**Results** 309 patients were included (86 TAVI, 133 SAVR and 90 medical). Comparing patients undergoing TAVI and SAVR, TAVI patients were older (mean age 89.4 years vs. 86.9, p<0.01) and more likely to have had previous cardiac surgery (21% vs. 2%, p<0.01). SAVR patients were more likely to have coronary disease (62% vs. 48% p=0.04). There was no statistical difference in the other characteristics (table 1). Compared with patients undergoing intervention

**Abstract 5 Table 1** Demographic details of all patients referred with severe symptomatic aortic stenosis with P values for statistical difference between patients undergoing TAVI and SAVR

| PATIENT DEMOGRAPHICS | | | | |
|---|---|---|---|---|
| | TAVI | SAVR | P value | Medical |
| Age (mean) | 89.4±2.9 | 86.9±1.8 | **<0.01** | 89.0±3.2 |
| Male Sex (%) | 51% | 54% | 0.63 | 42% |
| Log Euroscore (mean) | 17.9%±12 | 20.0%±15 | 0.27 | NA |
| Creatinine (mean µmol/l) | 109±35 | 103±45 | 0.28 | 132.4±93.4 |
| Chronic lung disease | 25% | 28% | 0.63 | 18% |
| Left Ventricular Impairment (%) | 36% | 30% | 0.33 | 41% |
| ≥1 Coronary stenosis >50% | 48% | 62% | **0.04** | 33% |
| Diabetes | 20% | 11% | 0.07 | 13% |
| Previous Stroke | 16% | 13% | 0.45 | 15% |
| Previous cardiac Surgery | 21% | 2% | **<0.01** | 13% |

**Abstract 5 Table 2** Patient outcomes following TAVI and SAVR

| PATIENT OUTCOMES | | | |
|---|---|---|---|
| | TAVI | SAVR | P value |
| ITU/HDU stay (days) | 0.96 ±1.7 | 8.31±12 | **<0.01** |
| Total stay (days) | 11.89 ±9.9 | 21.69±24 | **<0.01** |
| New PPM implant | 4% | 2% | 0.57 |
| MI | 0% | 0% | 1 |
| Stroke | 0% | 2% | 0.16 |
| Aortic Regurgitation ≥ moderate | 2% | 0% | 0.08 |
| Tamponade | 5% | 5% | 1 |
| AKI | 18% | 27% | 0.11 |
| Pulmonary Complications | 11% | 26% | **0.02** |
| Vascular Complications | 3% | 0% | 0.07 |




**Abstract 5 Figure 1**

the medically treated had higher mean creatinine values (132µmol/L, p<0.01) and compared to the SAVR patients were older (89.0 years, p<0.01) with more previous cardiac surgery (13%, p<0.01). They also had less documented coronary disease (33%, p<0.01) (but did not undergo routine angiography).

All TAVI patients had surgical access (86% trans-femoral, 8% trans-apical, 6% direct aortic), an Edwards (XT or Sapien 3) valve and general anaesthetic in 69% of cases. There were no intraoperative deaths but 3 conversions to sternotomy for bleeding. 68% of the surgical patients underwent isolated AVR and 32% AVR+CABG with 1 surgical intraoperative death.

Medically managed patients had poor outcomes with a mortality of 49% at 1 year and 77% at 3 years. Survival of patients with either intervention was better, with no significant difference in 30-day mortality of SAVR and TAVI (5.3% vs 2.3%, p=049) or 3-year mortality (33% vs. 36%, p=0.66) respectively (figure 1). Compared with TAVI, SAVR patients spent significantly more days on ITU/HDU (8.31±12 vs. 0.96 ±1.7, p<0.01) and in hospital (21.69±24 vs. 11.89 ±9.9, p<0.01). SAVR patients had more pulmonary complications than TAVI (26% vs. 11%, p=0.02.) 17% of the SAVR and all the TAVI pulmonary complications were chest infections but SAVR patients also required 19 chest drains insertions and 6 reintubations. There were no significant differences in the other outcomes (table 2). Finally, whilst acute kidney injury (AKI) rates were statistically similar, all but 1% of the TAVR patients resolved spontaneously where as 13% of the SAVR patients required renal replacement therapy p<0.01.

**Conclusion** The prognosis of patients >85 years of age with symptomatic severe aortic stenosis without intervention is poor. Aortic valve intervention in very elderly patients has acceptable mortality out to 3 years. In our early experience, using surgical access and high rates of general anaesthesia, TAVI in this group had similar mortality to SAVR but with significant reductions in both ITU and overall hospital stay.

**Conflict of Interest** none

## 6 SIMPLE OR COMPLEX SURGERY IN INFECTIVE ENDOCARDITIS COMPLICATED BY ABSCESS: WHAT IS THE NEED AND WHAT ARE THE OUTCOMES?

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**Introduction** Intracardiac abscess complicates both native (NV-IE) and prosthetic valve infective endocarditis (PV-IE). Antibiotics alone rarely achieve source control, and if left untreated abscesses are usually fatal. Uncomplicated abscesses affecting the aortic valve can be treated with aortic valve replacement (AVR) with or without patching of the abscess cavity. With more extensive tissue destruction aortic root replacement (ARR) may be required. The optimal surgical approach is controversial, ARR using homograft valve conduits are reported to have lower re-infection rates and have been favoured in most cases of abscess affecting the aortic root.

**Aims** We aimed to describe the characteristics, surgical technique chosen, complications and outcomes for patients with intracardiac abscess presenting over more than a decade.

**Methods** Consecutive patients assessed between 01 January 2005 and 31 December 2017 were identified from a prospectively collected database used for service evaluation of IE care. We required patients to have Duke definite IE with evidence of intracardiac abscess on imaging or found at operation. We recorded patient demographics, affected structures, microbiology, complications of IE, operative details and outcomes.

**Results** There were 68 episodes of intracardiac abscess occurring in 59 patients, of whom 44 (75%) were male, 10 (17%) were persons who inject drugs (PWID) and the mean age was 55.7 +/- 16.3 years. Affected structures were primarily the aortic (55) and mitral (17) valves. Thirty-one (53%) had NV-IE and 28 (47%) had PV-IE. Multiple aortic cusps were involved in 68%. Bacterial pathogens were mainly Streptococcus (26) and Staphylococcus (18) species, which were associated with NV-IE (p=0.009) and PV-IE (p=0.005) respectively. The most common complications were heart failure (44), heart