

Abstract 128 Figure 1

**129 PROSTHETIC VALVE ENDOCARDITIS FOLLOWING TRANSCATHETER AORTIC VALVE IMPLANTATION – EXPERIENCE FROM A UK CENTRE**

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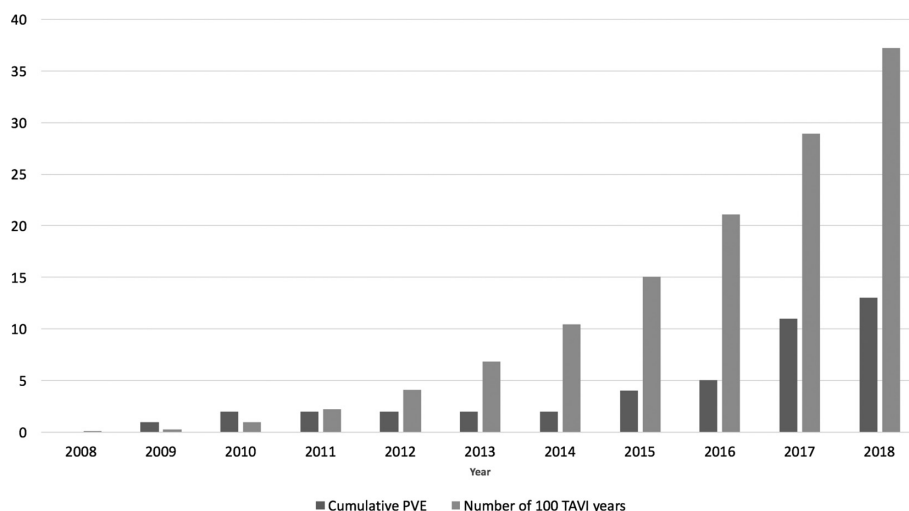
**Introduction** Prosthetic valve endocarditis (PVE) is a recognised and serious complication following surgical aortic valve replacement, with an incidence of 0.3–1.2% per year and an in-hospital mortality of >20%. The incidence and outcomes of PVE following transcatheter aortic valve implantation (TAVI) are less well established. Previously published studies suggest the incidence of PVE in the first year following TAVI is 0.5–3.1%, the rate of in-hospital mortality 11–47%, and mortality during two years follow-up of 67%. However, a

number of questions remain unanswered, including the incidence of PVE per TAVI-year, the variation in incidence by year post-procedure and the diagnostic sensitivity of the modified Duke criteria.

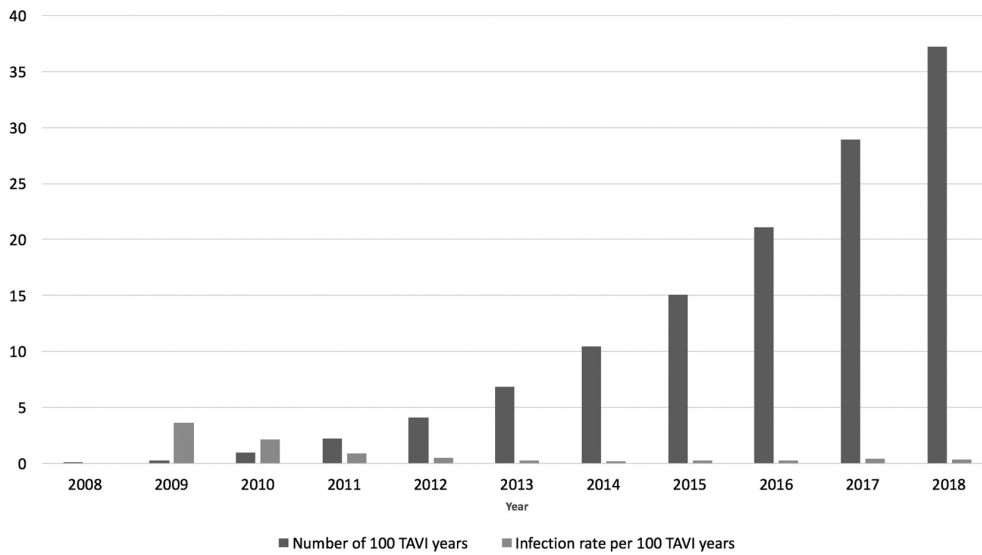
**Methods** This retrospective study of the incidence of TAVI-PVE has been designed and reported using the STROBE statement. We included all adults who underwent TAVI at Leeds Teaching Hospitals NHS Trust between 1st January 2008 and 31st December 2018. Cases of TAVI-PVE were identified from the Leeds Endocarditis Service database and all clinical, microbiological, echocardiographic and outcome data was retrieved from electronic patient records.

**Results** During the 10-year study period 1337 patients underwent TAVI and the median follow-up was 2.3 years (interquartile range 1.3–4.0 years). In this time, 13 patients (0.97%) were diagnosed with TAVI-PVE; 1 presented within 30 days of TAVI (7.7%) and 5 presented in the first-year post-procedure (38.5%). The mean age of patients diagnosed with TAVI-PVE was 81.3 years (SD 5.1 years), and the mean time between TAVI and diagnosis with TAVI-PVE was 653 days (SD 541.9 days). Out of the 13 patients diagnosed with TAVI-PVE, only 4 (30.8%) fulfilled the modified Duke criteria for definite infective endocarditis (IE). The remaining 9 patients (69.2%) fulfilled the modified Duke criteria for possible IE. The most common reason for patients not fulfilling definite criteria was lack of echocardiographic features. In the majority of cases (7/13; 53.8%) the causative organism was found to be streptococcal. The cumulative incidence of TAVI-PVE has risen in line with the number of patients living with TAVI prostheses and the cumulative number of TAVI years (figure 1). However, when assessed in relation to the number of 100-TAVI years, the infection rate has fallen from a peak of 3.6 in 2009 and has remained relatively static (between 0.19–0.38) over the last 6 years (figure 2). Seven out of the 13 patients died within the study period giving an overall mortality rate of 53.8%. Five of those deaths occurred during the hospital admission, giving an in-hospital mortality rate of 38.5%, and these were all attributable TAVI-PVE or related complications.

**Conclusion** The overall incidence of TAVI-PVE in our institution is 0.97%, with an associated mortality of 53.8%. The incidence relative to the number of TAVI-years has fallen and has remained static in recent years. Interestingly, the modified Duke criteria has a relatively low sensitivity in the diagnosis



Abstract 129 Figure 1 Cumulative episodes of PVE relative to cumulative number of TAVI years



**Abstract 129 Figure 2** PVE rate per 100 TAVI years relative to cumulative 100 TAVI years

of TAVI-PVE, due to lack of diagnostic echocardiographic features. This may be a result of TAVI-PVE being less likely to demonstrate new paravalvular leak than SAVR-PVE due to the absence of suturing material in the former. As such, a high index of suspicion is required.

**Conflict of Interest** None

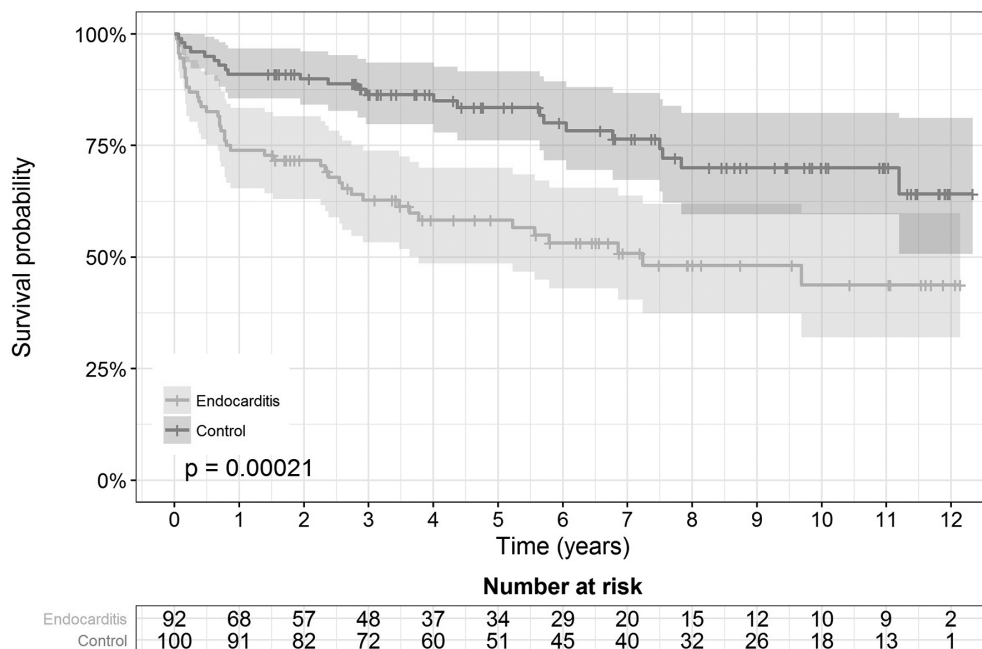
**Background** Intravenous drug use (IVDU) is a predisposition for the development of infective endocarditis (IE). The incidence amongst people who inject drugs (PWID) is estimated to be 50–100 times greater than the general population. For this reason, PWID with symptoms of infection or bacteraemia are frequently referred to the IE team for assessment. We have previously reported on our experience of managing PWID with IE over more than a decade. Here we present the characteristics, final diagnoses and outcomes in all PWID admitted to hospital with other infections in whom IE was suspected.

**Methods** Patients aged 18 or over who had taken drugs intravenously within 90 days and referred to the IE team between 01/01/2006 and 31/12/2016 were eligible. Inclusion was dependent on the modified Duke criteria, we required

**130 FEVER IN AN INTRAVENOUS DRUG USER: IF IT ISN'T ENDOCARDITIS THEN WHAT IS IT?**

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**Abstract 130 Figure 1**