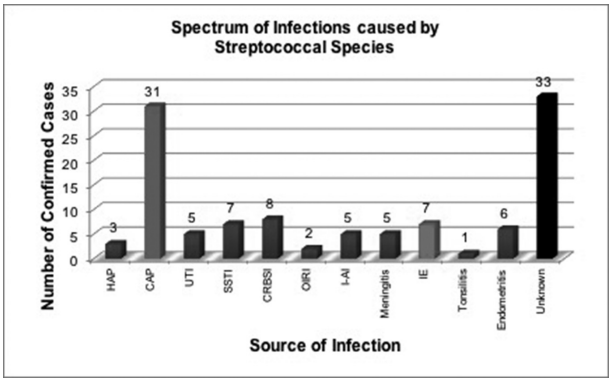
recorded were age, gender, number of blood cultures taken and the final diagnosis stated in the discharge summary.

Results 112 episodes were identified in 72 females and 40 males (mean age 40 years, range<1–97). The mean number of blood cultures was 2.57 (range1-12) and 85 (76%) patients had only one blood culture taken. The infections recorded are shown in Figure 1. The cause of the bacteraemia was not stated in 33 (29.5%) cases. Community acquired pneumonia (n=31) was the commonest infection, followed by catheter-related bloodstream infection (n=8) and then IE and soft-tissue infection (both n=7). Details of the streptococcal species are shown in Table 1 and the results have been divided using age less than or greater than 18 years. 50% of bacteraemias were caused by oral streptococci. IE was confirmed in only 7 (1.2%).



Abstract 135 Figure 1

Conclusions Among all streptococcal bacteraemias, IE is an uncommon cause but is more common when considering oral streptococci in adults (12.5%) compared with those aged less than 18 years (0%). Oral streptococci remain an important cause of IE particularly in adults. This diagnosis should be considered even if only one blood culture is taken and is positive. The high rate of single blood culture sampling (76%) may be an unintended consequence of the Surviving Sepsis campaign and the drive to initiating empirical antibiotic therapy earlier. Under these circumstances the reliability of the Duke criteria will be reduced. Ideally, patients at increased risk of IE require multiple blood cultures if they have a significant pyrexial illness in order to determine if a sustained bacteraemia is present.

136 GP AUSCULTATION FOR DIAGNOSING VALVULAR HEART DISEASE

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Introduction Cardiac auscultation is an important clinical skill used by physicians in assessing and diagnosing valvular heart disease (VHD). The widespread use of echocardiography in the last three decades has coincided with a perceived decline in the utility of auscultation, particularly by general physicians. The ability of generalists to identify VHD in an unselected population has not been well characterised, so we aimed to determine the accuracy of auscultation in primary care for diagnosing VHD.

Methods 251 participants aged 65 and over who were participating in the OxValve population cohort study were included. They were recruited from two participating GP surgeries and had no previous diagnosis of VHD. The participants underwent cardiac auscultation during the OxValve study visit by two experienced General Practitioners (GPs), neither of whom had a specialist interest in cardiology. A 5-point Likert scale was used to rate the ability to hear heart sounds (1=not at all; 5=perfectly) in addition to the presence or absence of a murmur, type of murmur and the ability to make a diagnosis based upon the auscultation findings. This was compared to transthoracic echocardiography performed at the same visit, but GPs were blind to the echocardiogram result, which was performed after auscultation. VHD was categorised as mild (either mild regurgitation [excluding trace/physiological] or aortic sclerosis) or significant (moderate/severe regurgitation or at least mild stenosis). Standard measures of diagnostic accuracy were calculated.

Results 82 murmurs were heard by the GPs (80 systolic; 2 diastolic). Echocardiography identified mild VHD in 174 (69%) of the 251 participants, with more significant VHD present in 37 (15%). The ability to hear a murmur on auscultation was not related to age, BMI or heart rate (table 1). Auscultation had a sensitivity of 32% and specificity of 67% for diagnosing mild VHD, which improved slightly for significant VHD to a sensitivity of 43%, and specificity of 69% (table 2). The area under the curve on receiver operating characteristics (ROC) analysis was 0.50 for mild VHD and 0.56 for significant VHD (Figure-1) suggesting limited discriminatory ability.

Abstract 136 Table 1 The likelihood of hearing of murmur on auscultation and its relationship with age, BMI & heart rate

The likelihood of hearing of murmur on auscultation and its relationship with age, BMI & heart rate			
	N	*Correlation*	*Significance (p value)*
BMI & Murmur	251	-.120	.05
Age & Murmur	251	.052	.41
Heart rate & Murmur	251	-.006	.93

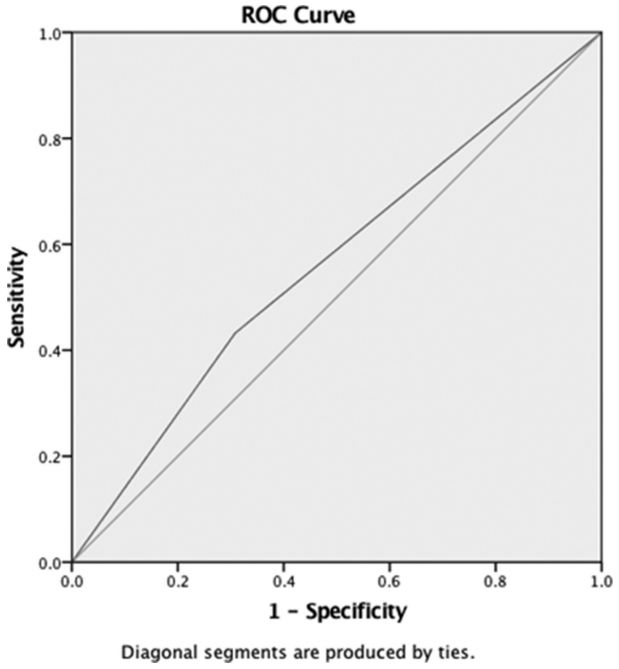
Conclusion GP auscultation has only moderate accuracy for diagnosing valvular heart disease in an unselected population, and the presence of an isolated murmur would not be a reliable indicator of valve disease. This study did not include patients with cardiovascular symptoms however, in whom the presence of a murmur may be more significant, and for whom echocardiography might be more appropriate.

Abstract 136 Table 2 The accuracy of cardiac auscultation in diagnosing significant VHD

The accuracy of cardiac auscultation in diagnosing significant VHD

		Murmur Absent	*Present*	*Total*
Echo Result	*Negative*	148	66	214
	Positive	21	16	37
Total		169	82	251

Sensitivity = 0.43
Specificity = 0.69



Abstract 136 Figure 1 ROC curve for significant VHD Area under the curve = 0.56 (95% CI 0.46 – 0.66)

137 ASSESSMENT OF PRE-OPERATIVE TRANSOESOPHAGEAL ECHOCARDIOGRAPHY GUIDELINE PREDICTORS OF MITRAL VALVE REPAIR SUCCESS WITH CURRENT SURGICAL PRACTICE

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Introduction Mitral regurgitation (MR) is the second most common valvular heart disorder and severe MR brings with it a poorer prognosis. Successful mitral valve (MV) repair for prolapse has similar patient survival compared with expected outcomes. Precise definition of MV morphology is required to determine the complexity and feasibility of MV repair. Several echocardiographic parameters in international guidelines try and identify patients at risk of treatment failure. These are largely based on one study in 2002 where quadrangular resection and sliding plasty was the surgical technique of choice for the majority of MV prolapse. More modern surgical practice largely spares resection of valve tissue and employs neochordae/transfer techniques. This brings into question the applicability of previous imaging predictors for procedural success.

Hypothesis Are echocardiographic parameters in current recommendations accurate in predicting successful mitral valve repair?

Methods A retrospective study was carried out on all MV repairs undertaken at Nottingham University Hospitals NHS Trust between August 2015 and August 2016. Significant residual MR was defined as moderate or above. Echocardiographic predictors of suitability were taken from the European Association of Cardiovascular Imaging 2013 guidelines. Inclusion criteria: Pre-operative transoesophageal echocardiogram (TOE); post-operative baseline transthoracic echocardiogram (TTE) at 3–6 months. Exclusion criteria: lack of pre-op TOE or post-op TTE; previous cardiac surgery.

Results 52 patients underwent MV repair. Of these, 28 patients had complete imaging as set out by the inclusion criteria. Data presented as mean±SD unless otherwise stated. 4/28 (14%) patients had significant residual MR. Table 1 shows demographics, pre-operative chamber characteristics, MV characteristics, operative technique and post-op MR characteristics between the two groups. There were no significant differences in demographics, cardiac chambers, MV or operative characteristics between patients with no significant residual MR and significant residual MR groups. No patients had quadrangular resection. The clinical characteristics of the 4 patients with significant residual MR are presented in table 2.

Discussion In this small, single-centre, retrospective study, we found that none of the current echocardiographic predictors of suitability for MV repair were associated with presence of residual significant MR. Further prospective work is required to re-evaluate clinical and imaging data in predicting MV repair success with current surgical practice and improved imaging techniques.

138 CAN PATIENT SAFETY AND OUTCOMES BE PRESERVED DURING LEARNING CURVE FOR AN INNOVATIVE SURGICAL PROCEDURE? THE EARLY RESULTS OF WOLVERHAMPTON AORTIC VALVE REPAIR PROGRAMME

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Aim to evaluate early clinical and echocardiography outcomes of our recently initiated aortic valve repair (AV repair) programme.

Methods 26 patients were accepted for AV repair/replacement, starting in April 2014. The preoperative imaging was reviewed by our Cardiac MDT and by our proctor, Dr Emmanuel Lansac. The indications for surgery are listed in table 1.