Heart valve disease scope stakeholder subgroup discussions		
Heart valve disease scope stakeholder subgroup discussions **Wednesday 23 January 2019** **Group 3**		
Scope details	**Questions for discussion**	**Stakeholder responses**
3.1 Population: **3.1.1 Groups that will be covered:** • Adults (18 and over) with suspected heart valve disease. • Adults (18 and over) with diagnosed heart valve disease (aortic, mitral, and tricuspid). Specific consideration will be given to: - pregnant women and women considering pregnancy - people with congenital valve abnormalities in need of multidisciplinary team involvement of adult congenital heart disease specialists - elderly adults and adults with	Is the population appropriate? • Are there any specific subgroups that have not been mentioned? • Are there any specific equality issues that need to be addressed that have not already been listed? • Are there any groups that the guideline should not cover?	• Specific considerations: stakeholders queried whether the second point is specific enough. Suggested 'bicuspid aortic valve disease' instead. • Multiple valve disease is a recognised entity and stakeholders queried whether this should be mentioned. • Stakeholders noted that patients with concomitant cardiac disease are a different group from adults with multiple comorbidities (AF in particular). • Stakeholders noted the specific relevance of the ageing population for this guideline.

	multiple comorbidities at higher risk from conventional surgery.		
3.3.1	**Key clinical issues that will be covered:** • Assessment and diagnosis including BNP, chest X-ray, echocardiography, stress testing, and cardiac magnetic resonance • Medical management of (a) aortic regurgitation (b) aortic stenosis (c) mitral regurgitation (d) mitral stenosis (e) tricuspid regurgitation (f) tricuspid stenosis • Indications for and timing of interventions (conventional surgery and transcatheter) for (a) aortic regurgitation (b) aortic stenosis (c) mitral regurgitation (d) mitral stenosis (e) tricuspid regurgitation (f) tricuspid	These are the key areas of clinical management that we propose covering in the guideline. Do you think this is appropriate, acknowledging we must prioritise areas for inclusion?	Diagnosis and assessment: • Suggested adding cardiac CT. • Stakeholders noted that lack of detection is an issue – they estimated that half of all disease isn't detected. Service delivery standards would be important. • Stakeholders indicated that 'When should heart valve disease be suspected' is a potential additional question. • Suggested that auscultation/screening by GPs could be mandatory above a certain age. • Suggested including NT-proBNP testing instead of BNP as it is more sensitive. • Suggested excluding chest X-ray as it is not commonly used. Medical management: • Tricuspid stenosis is very rare so stakeholders suggested removing it and concentrating on pathologies of higher prevalence. Indications: • Suggested removing tricuspid stenosis.

stenosis
 	
• Interventions
 	
   − Approach (conventional surgery versus transcatheter)
 	
   − Repair or replacement
 	
   − Type of prosthesis
 	
   − Interventions for prosthetic valve complications
 	
• Anticoagulation and antiplatelet therapy after intervention
 	
• Frequency of monitoring and type of test before and after intervention
 	
• Information and support
		Interventions:
		
		• For the approach question, suggested changing 'versus' to 'or'.
		
		• Stakeholders felt we should be more specific about conventional surgery as this can also have implications for cost-effectiveness, e.g. traditional/minimally invasive surgery. Suggested adding minimally invasive surgery as a third option.
		
		• Suggested adding timing of pacemaker insertion as a possible question.
		
		• Suggested an area around the competencies of those looking after/caring for heart valve disease patients, e.g. the surgical training required for surgeons performing mitral valve repair.

3.3.2 Key clinical issues that will not be covered: • Diagnosis and management of pulmonary valve disease. • Prophylaxis for the prevention of infective endocarditis. • Prophylaxis for the prevention of	Are the excluded areas appropriate?	• Is treatment of infective endocarditis going to be covered? Stakeholders noted that we need to be clear in the document as question 4.8 suggests that it is, though prophylaxis and prevention of infective endocarditis will not. • Add tricuspid stenosis.

rheumatic fever. • Management of acute heart failure. • Anticoagulation for atrial fibrillation.		
3.4 Economic aspects We will take economic aspects into account when making recommendations. We will develop an economic plan that states for each review question (or key area in the scope) whether economic considerations are relevant, and if so whether this is an area that should be prioritised for economic modelling and analysis. We will review the economic evidence and carry out economic analyses, using an NHS and personal social services (PSS) perspective, as appropriate.	Which practices will have the biggest cost implications for the NHS? Are there any new practices that might save the NHS money compared to existing practice? Which areas of the scope have the most variation in practice?	Stakeholders raised the issue of how social care costs are considered in economic modelling.

3.5 Key issues and questions
 	
1   Assessment and diagnosis
 	
    1.1 In people with suspected heart valve disease what are the indications for referral for echocardiography testing?
 	
    1.2 In people who have had
	Are these the correct questions?	1.5 and 1.6 – suggested rewording to: what is the clinical and cost effectiveness of stress echocardiography, cardiac magnetic resonance and cardiac CT in the assessment of known heart valve disease after echocardiography (combine or as three separate points).
		
		1.7 – change BNP to NT-proBNP as mentioned earlier.
		
		1.8 – remove as discussed earlier for chest x-ray.
		
		Stakeholders discussed removing 2.1 and 2.2 as information is

echocardiography testing, what are the indications for referral to a specialist? 1.3 In people with suspected heart valve disease, what symptoms and signs indicate that direct referral to a specialist is required? 1.4 In people with asymptomatic heart valve disease what is the predictive accuracy of stress testing for risk stratification? 1.5 In people with asymptomatic heart valve disease what is the role of stress echocardiography? 1.6 What is the role of cardiac magnetic resonance for assessing valve disease? 1.7 What is the diagnostic accuracy of BNP for heart valve disease? 1.8 What is the diagnostic accuracy of chest X-ray for heart valve disease?		already available for heart failure and these drugs are not specific for valves. 3.1 – stakeholders noted that some patients have reported modifying their behaviour to avoid symptoms – therefore symptoms may be less obvious, e.g. reducing exercise such as gardening. Awareness that heart valve disease can present non-specifically is required. 4.6 – stakeholders felt we will struggle to find evidence for this question and existing advice is already available – it is also quite uncommon. Suggested removing from the list of questions. 4.8 – stakeholders were unsure about the relevance of this question. Suggested asking what are the benefits (clinical and cost) of an endocarditis team instead.

2	Medical management		
	2.1 What is the clinical and cost effectiveness of ACE inhibitors, ARBs and beta blockers for severe valve disease?		
	2.2 What is the clinical and cost effectiveness of beta blockers, calcium channel blockers, digoxin and diuretics to transiently improve symptoms in people with valve disease?		
3	Indications for and timing of interventions		
	3.1 What symptoms, signs and investigative findings indicate that interventions should be offered to people with (a) aortic regurgitation, (b) aortic stenosis, (c) mitral regurgitation, (d) mitral stenosis, (e) tricuspid regurgitation, and (f) tricuspid stenosis?		

	3.2 What is the role of coronary computed tomography in assessing valve disease?		
4	Interventions for valve repair or replacement 4.1 What is the clinical and cost effectiveness of transcatheter intervention or surgical intervention (with mechanical or biological valves) compared with conservative management for people with aortic stenosis? 4.2 What is the clinical and cost effectiveness of transcatheter intervention or surgical intervention (with mechanical or biological valves or with valve repair) compared with conservative management for people with aortic regurgitation?		

4.3 What is the clinical and cost effectiveness of transcatheter intervention or surgical intervention (with mechanical or biological valves) compared with conservative management for people with mitral stenosis? 4.4 What is the clinical and cost effectiveness of transcatheter intervention or surgical intervention (with mechanical or biological valves or with valve repair) compared with conservative management for people with mitral regurgitation? 4.5 What is the clinical and cost effectiveness of transcatheter intervention or surgical intervention (with mechanical or biological valves or with valve repair) compared with conservative management for people		

	with tricuspid regurgitation?		
	4.6 What is the clinical and cost effectiveness of fibrinolysis compared with surgery for prosthetic valve thrombosis?		
	4.7 What is the clinical and cost effectiveness of repeat valve replacement compared with transcatheter intervention for prosthetic valve degeneration?		
	4.8 What is the clinical and cost effectiveness of antibiotics alone versus antibiotics plus surgery for the treatment of infective endocarditis?		
5	Anticoagulation and antiplatelet therapy after intervention 5.1 What is the clinical and cost effectiveness of antithrombotic therapy for people with prosthetic valves		

	following transcatheter or surgical (mechanical or biological valve) intervention? 5.2 What is the clinical and cost effectiveness of bridging agents for people who need to temporarily stop their anticoagulation?		
6	Monitoring 6.1 How frequently and with what tests should people with heart valve disease be monitored before intervention? 6.2 How frequently and with what tests should people with repaired or replaced valves be monitored?		
7	Information and support 7.1 What information and advice should people affected by heart valve disease and their family and carers be		

	given?		
3.6 Main outcomes • Mortality • Health-related quality of life • Hospitalisation • Heart failure • Arrhythmias, for example atrial fibrillation • Thromboembolic events • Other adverse events	Are all outcomes appropriate?	Not discussed.
GC composition **Full Committee Members:** Chair (recruited) Topic adviser (cardiologist) (recruited) Early committee member (cardiac surgeon) (recruited) Interventional cardiologist x1 Cardiac surgeon (ideally with expertise in the mitral valve) x1 General practitioner x1 Lay member x2 Cardiac nurse specialist (with interest in valve	Do you have any comments on the proposed membership of the committee?	Stakeholders suggested a surgeon with expertise in mitral valve repair. They also suggested the addition of a radiologist as a co-optee.

disease) x1		
Co-optees Echocardiography physiologist x1 Haematologist x1 End of life expert x1		