Heart valve disease scope stakeholder subgroup discussions Wednesday 23 January 2019 Group 2		
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?	The group agreed that the second bullet point should be amended to 'people with bicuspid aortic valve disease' for clarity.

	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?	The group agreed that chest X-ray should be removed as this is not used in clinical practice to assess or diagnose heart valve disease. They suggested adding cardiac CT, which is used. Suggested removing the word 'conventional' for surgery for clarity. Suggested considering the assessment of prosthetic valve complications. Suggested elaborating on frequency of monitoring and type of test before and after intervention. Stakeholders felt that the guideline should consider whether or not certain patient groups need following up, e.g. those with prosthetic valves.

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		

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?	The group noted that there should be a decision on whether management of infective endocarditis is included or excluded. They thought either approach would be appropriate but it should be clear in the document which approach is taken. The group agreed that rheumatic fever should be amended to rheumatic valve disease.

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 suggested that the different types of surgery, particularly regarding their use in different risk groups of patients, surgical visualisation, the durability of different types of valve, and risks such as stroke and vascular complications, may be an area for economic work. They felt that follow-up after valve implantation is an area where there is large variation in practice.

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?	<u>Assessment and diagnosis</u>
		
		The group suggested adding a question before 1.1 about what are the symptoms for which heart valve disease should be considered/what clinical features suggest heart valve disease. The group felt that there is a gap to be addressed between a person presenting in primary care and the clinician suspecting heart valve disease, and awareness needs to be raised among primary care practitioners about the symptoms of heart valve disease (for example, exertional breathlessness).

echocardiography testing, what are the indications for referral to a specialist?		1.4 – Suggested removing this question as stress testing will be covered by stress echocardiography.
1.3 In people with suspected heart valve disease, what symptoms and signs indicate that direct referral to a specialist is required?		1.5 - Suggested rewording asymptomatic to 'uncertain symptoms'.
1.4 In people with asymptomatic heart valve disease what is the predictive accuracy of stress testing for risk stratification?		1.6 - Add cardiac CT as per previous suggestion for clinical areas.

1.8 - Remove this question as per previous suggestion for clinical areas.

Medical management |
| 1.5 In people with asymptomatic heart valve disease what is the role of stress echocardiography? | | Suggested removing the word 'severe' from 2.1, and combining 2.1 with 2.2. Stakeholders felt that this will be a useful question area. There is variation in practice and some practitioners are giving ACE inhibitors for moderate heart valve disease, for example. |
| 1.6 What is the role of cardiac magnetic resonance for assessing valve disease? | | Indications for and timing of interventions |
| 1.7 What is the diagnostic accuracy of BNP for heart valve disease? | | 3.2 - Add CMR.

Interventions for valve repair or replacement |
| 1.8 What is the diagnostic accuracy of chest X-ray for heart valve disease? | | 4.8 - Either include management of infective endocarditis or state it is excluded, as per previous suggestion for clinical areas. Stakeholders felt it does not make sense to only include one aspect of management here. |

2	Medical management		Anticoagulation and antiplatelet therapy after intervention
	2.1 What is the clinical and cost effectiveness of ACE inhibitors, ARBs and beta blockers for severe valve disease?		5.1 - Add antiplatelet therapy alongside antithrombotic therapy for clarity.
	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?		5.2 - Suggested that ' is bridging required…' is a better question focus, as stakeholders felt it is overused in current practice.
			Monitoring
3	Indications for and timing of interventions		6.1 - Suggested rephrasing 'before intervention' to 'when there is no current indication for intervention'.
	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?	Suggested adding 'need for reintervetion' to the list of outcomes.
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 felt that the proposed membership is skewed towards interventionalists, particularly given that the majority of heart valve disease patients are managed by non-interventionalists. They suggested having only one surgeon. Suggested a cardiac valve imaging expert as a full or co-opted member. Suggested a pharmacist as a co-opted member as an alternative to a co-opted haematologist.

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