

Heart valve disease scope stakeholder subgroup discussions
Wednesday 23 January 2019
Group 1

Scope details	Questions for discussion	Stakeholder responses
<p>3.1 Population: 3.1.1 Groups that will be covered:</p> <ul style="list-style-type: none"> • Adults (18 and over) with suspected heart valve disease. • Adults (18 and over) with diagnosed heart valve disease (aortic, mitral, and tricuspid). <p>Specific consideration will be given to:</p> <ul style="list-style-type: none"> - 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 	<p>Is the population appropriate?</p> <ul style="list-style-type: none"> • 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? 	<p>The group agreed that the population should be specified as bicuspid valve disorders (therefore excluding other adult congenital heart diseases).</p> <p>A question was raised as to whether there should be an age specification for ‘elderly adults’, or whether this was not a meaningful division considering variation between subgroups and other high-risk factors. Concluded that adults with frailty and/or comorbidities was a more appropriate description of this group.</p> <p>There was a suggestion that it might be necessary to consider specific subgroups such as mitral regurgitation or other specific comorbidities. The facilitator noted that this would be done during the evidence review – if there was heterogeneity in populations then specific subgroups would be considered.</p>

<p>multiple comorbidities at higher risk from conventional surgery.</p>		
<p>3.3.1 Key clinical issues that will be covered:</p> <ul style="list-style-type: none"> • 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 	<p>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?</p>	<p><u>Assessment and diagnosis</u></p> <p>The group discussed the need for an algorithm of referral upon initial assessment. Referral rates could be reduced if there was guidance at this stage. New technology might need to be considered, for example smaller hand-held echo machines that could be used in primary care rather than patients being referred to a hospital with larger facilities.</p> <p>The group agreed that chest X-ray should be excluded.</p> <p>Auscultation was discussed for inclusion under assessment. There was agreement that auscultation and echo were good primary tests before referral. There was a suggestion that a recommendation could be made for auscultation/echo as a clinical test for individuals over a certain age with a high disease prevalence, and that this should therefore be included under diagnosis.</p>

<p>stenosis</p> <ul style="list-style-type: none"> • Interventions <ul style="list-style-type: none"> – 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 		
<p>3.3.2 Key clinical issues that will not be covered:</p> <ul style="list-style-type: none"> • Diagnosis and management of pulmonary valve disease. • Prophylaxis for the prevention of infective endocarditis. • Prophylaxis for the prevention of 	<p>Are the excluded areas appropriate?</p>	<p>No comments.</p>

<p>rheumatic fever.</p> <ul style="list-style-type: none"> • Management of acute heart failure. • Anticoagulation for atrial fibrillation. 		
<p>3.4 Economic aspects</p> <p>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.</p>	<p>Which practices will have the biggest cost implications for the NHS?</p> <p>Are there any new practices that might save the NHS money compared to existing practice?</p> <p>Which areas of the scope have the most variation in practice?</p>	<p>No comments.</p>
<p>3.5 Key issues and questions</p> <p>1 Assessment and diagnosis</p> <p>1.1 In people with suspected heart valve disease what are the indications for referral for echocardiography testing?</p> <p>1.2 In people who have had</p>	<p>Are these the correct questions?</p>	<p><i>Notes from stakeholders on specific points in this section:</i></p> <p>Questions 1.2 & 1.3: Specialist referrals (see also section 3.3.1 for further notes on referrals) The group agree that answering 1.2 also gives the answer for 1.3, therefore making question 1.3 superfluous.</p> <p>The group discussed whether there should be a ‘rapid route’ of referral for patients with observed heart murmur at this stage. The wording of Q 1.2 could therefore possibly be</p>

<p>echocardiography testing, what are the indications for referral to a specialist?</p> <p>1.3 In people with suspected heart valve disease, what symptoms and signs indicate that direct referral to a specialist is required?</p> <p>1.4 In people with asymptomatic heart valve disease what is the predictive accuracy of stress testing for risk stratification?</p> <p>1.5 In people with asymptomatic heart valve disease what is the role of stress echocardiography?</p> <p>1.6 What is the role of cardiac magnetic resonance for assessing valve disease?</p> <p>1.7 What is the diagnostic accuracy of BNP for heart valve disease?</p> <p>1.8 What is the diagnostic accuracy of chest X-ray for heart valve disease?</p>		<p>altered to indicate that patients with a moderate murmur should be seen by a specialist. There were further suggestions that these questions should incorporate different scenarios of diagnosis – who should be referred to a specialist, who is at highest risk at this stage etc.</p> <p>Cost effectiveness was discussed with specific reference to available datasets for creation of algorithms for diagnosis and referral; could an economic analysis be done for each referral route? The group agreed that a robust algorithm for referral would be very useful at this stage and the need for this should be reflected in the scope. A streamlined algorithm for diagnosis and referral would reduce duplication of effort and resources. Could this be done elsewhere and then referred to in this guideline?</p> <p>Questions 1.4 & 1.5: Asymptomatic heart valve disease</p> <p>The group agreed that question 1.5 could be taken out, and question 1.4 left in.</p> <p>A stakeholder questioned whether you would actually do anything other than a stress test in these situations, but also made the point that a stress test for one condition under these categories might not be appropriate for others under the same category. The group indicate that the question needs to aid the development of an algorithm.</p>
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<p>2 Medical management</p> <p>2.1 What is the clinical and cost effectiveness of ACE inhibitors, ARBs and beta blockers for severe valve disease?</p> <p>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?</p>		<p>Question 1.6: Cardiac magnetic resonance for assessing HVD</p> <p>The group agreed that the wording should be changed so that the question asks what is the <i>'additional value'</i> of MR.</p> <p>Part of the group questioned why you would be doing MR in addition to an echo. However, it was pointed out that a lot of people are already using this assessment and therefore the guideline needs to cover MR. A stakeholder suggested that complex patients are going to have an angiogram anyway so perhaps should specify that MR shouldn't be done in these cases. These discussions led to the consensus that 'what is the additional value of MR' is the most useful question here.</p>
<p>3 Indications for and timing of interventions</p> <p>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?</p>		<p>Question 1.8: Chest X-ray</p> <p>All agree that chest X-ray shouldn't be included and therefore question 1.8 should be removed.</p> <p>2. Medical management</p> <p>The group discussed whether these questions are covered sufficiently elsewhere, whether there was enough evidence out there for us to already know the answer, and whether there was sufficient uncertainty to cover it here.</p> <p>One stakeholder suggested that if these questions remain, then statins should be added to the list.</p>

<p>3.2 What is the role of coronary computed tomography in assessing valve disease?</p> <p>4 Interventions for valve repair or replacement</p> <p>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?</p> <p>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?</p>		<p>Question 2.2</p> <p>The group discussed whether you would prescribe these medications to make the patient feel better or slow the disease down. It was pointed out that there is little evidence in this area, but there is evidence showing that medication can improve the outcomes of surgery.</p> <p>Stakeholders agreed that there was a question here, but that the medications could perhaps be combined into one question. There was a suggestion that it would be useful to have a grid of medical interventions and tick boxes for each according to evidence for use.</p> <p>There is a need to think about the wording of the question. Is this area covered sufficiently elsewhere? Does the potential size of this question distract from the scope of the guideline?</p> <p>3: Indications for and timing of interventions</p> <p>Question 3.1: The group agreed that this question is fine.</p> <p>Question 3.2: The group confirmed that ‘coronary’ should be changed to ‘cardiac’. The question is cardiac CT, which includes coronary.</p> <p>There was a suggestion that 3.2 could be split, to cover CT in a diagnostic role and a treatment algorithm role.</p>
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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

4: Interventions for valve repair or replacement

Question 4.1: The group agreed that this question was fine.

Question 4.2: The group pointed out that the population for this question might include patients who have aortic regurgitation with mitral stenosis. The scope should include a mixed population here – this has been stated earlier in the draft scope but need to make it clear.

The group agreed that it would be useful to include a bracket after surgical intervention including ‘standard’ and ‘minimal invasive’. Alternatively, a footnote could be included stating that surgery included minimal invasive throughout.

Question 4.5: The group agreed that wording here needs to be changed to ‘tricuspid regurgitation (isolated and/or concomitant)’.

5: Anticoagulation and antiplatelet therapy after intervention

Question 5.2 (bridging agents): The group questioned whether this was already covered by another guideline. One stakeholder emphasised that there was generally variation in practice here, so important to make a recommendation. All agreed that it should be confirmed whether this is covered elsewhere, but if not it needs to be covered. For example, it is important to consider problems that occur when a patient

<p>with tricuspid regurgitation?</p> <p>4.6 What is the clinical and cost effectiveness of fibrinolysis compared with surgery for prosthetic valve thrombosis?</p> <p>4.7 What is the clinical and cost effectiveness of repeat valve replacement compared with transcatheter intervention for prosthetic valve degeneration?</p> <p>4.8 What is the clinical and cost effectiveness of antibiotics alone versus antibiotics plus surgery for the treatment of infective endocarditis?</p> <p>5 Anticoagulation and antiplatelet therapy after intervention</p> <p>5.1 What is the clinical and cost effectiveness of antithrombotic therapy for people with prosthetic valves</p>		<p>needs to stop anticoagulation therapy.</p> <p>6: Monitoring</p> <p>Question 6.1: Stakeholders questioned whether clinics are being cost-effective in their practices for monitoring. It would be useful to have a cost-effectiveness model here.</p>
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<p>following transcatheter or surgical (mechanical or biological valve) intervention?</p> <p>5.2 What is the clinical and cost effectiveness of bridging agents for people who need to temporarily stop their anticoagulation?</p> <p>6 Monitoring</p> <p>6.1 How frequently and with what tests should people with heart valve disease be monitored before intervention?</p> <p>6.2 How frequently and with what tests should people with repaired or replaced valves be monitored?</p> <p>7 Information and support</p> <p>7.1 What information and advice should people affected by heart valve disease and their family and carers be</p>		
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given?		
3.6 Main outcomes <ul style="list-style-type: none"> • 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.
<u>GC composition</u> <u>Full Committee Members:</u> 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?	All stakeholders in this group agree that the committee member list is appropriate. There was additional agreement that it is a good idea to include an end of life expert.

disease) x1

Co-optees

Echocardiography physiologist x1

Haematologist x1

End of life expert x1