



Heart Valve
VOICE

The more we listen,
the more lives we save.

Heart Valve Disease



A Practical Guide
for Primary Care



About Heart Valve Voice

Heart Valve Voice is a charity run by a group of multi-disciplinary experts in the field of heart valve disease, including patients, cardiac surgeons, cardiologists and GPs.

Formed in 2013, Heart Valve Voice aims to address the under-diagnosis and under-treatment of people with heart valve disease in the UK by raising awareness of the disease and delivering up-to-date evidence-based treatment guidance to ensure patients receive the right treatment at the right time.

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Executive Summary

- In the UK, as in other developed countries, the prevalence of heart valve disease rises with age, currently affecting over one million people over the age of 65 years.¹
- Chest auscultation is essential when examining patients presenting with symptoms that may indicate heart valve disease.
- Many older people may attribute their symptoms to ageing and may not report their condition. The annual flu jab, NHS health checks and new patient registrations are therefore excellent opportunities to screen them for underlying valvular disease using the stethoscope.
- When heart valve disease is suspected, early identification and referral are essential to enable timely assessment and advice on appropriate treatment by the cardiology team.
- Echocardiography is indicated in any patient with a heart murmur if there is any suspicion of valve disease on clinical examination.
- Surgery is recommended as the primary treatment for patients with severe heart valve disease, but there are also new mini-invasive treatment modalities available such as transcatheter aortic valve (TAVI) implementation.
- With recent advancements in technology we are able to offer new treatment modalities to patients who are otherwise not fit for surgery.
- Older age is not, by itself, a contraindication to surgery or other interventions. These treatment opportunities can prolong and improve the quality of life even in high-risk patients with severe valve disease.



Introduction

Heart valve disease is a malfunction or abnormality in one or more of the heart valves. In developed countries, where degenerative valve lesions are the main cause,² prevalence rises with age: from **0.7% in people aged 18-44** years to **8.5% in those aged 65-74** and **13% in the over-75s**.³ Aortic stenosis is the most frequently diagnosed form of heart valve disease, followed by mitral regurgitation, aortic regurgitation and mitral stenosis.²

Early identification and referral are essential for patients with heart valve disease, since the condition is associated with significant morbidity and mortality if it is not treated appropriately.² Medical therapy helps to manage symptoms but does not reverse or slow disease progression. Surgery to repair or replace the damaged valve is recommended for patients with severe heart valve disease.⁴

By itself, older age is not a contraindication to surgery. Valve surgery has been shown to prolong and improve quality of life in elderly patients, including those over 80 years of age.⁵ Minimally invasive mitral valve surgery is associated with less morbidity and is a safe alternative to conventional surgery.⁶ Similarly, in high-risk patients with severe aortic stenosis, TAVI results in similar outcomes to traditional open-heart surgery, and significantly reduces mortality compared with medical therapy.^{7,8}

Many patients with heart valve disease present to primary care as a result of symptoms or they may be identified incidentally. The aim of this guidance is to offer brief, practical advice on the diagnosis and referral of patients with heart valve disease to enable timely assessment and appropriate treatment by the cardiology team.



Diagnosing Heart Valve Disease

Signs and Symptoms

- Commonly reported signs and symptoms of heart valve disease include shortness of breath on exertion, chest tightness and/or pain, palpitations, fatigue, dizziness, pre-syncope and syncope.
- To distinguish between acute and chronic symptoms, ask when the patient first noticed their symptoms; have they come on suddenly or gradually; and have they worsened since symptoms were first experienced?

Red Flag' symptoms in patients with known significant aortic stenosis, are new onset angina (even if mild) and a syncopal episode – these warrant urgent referral for assessment.

- Ask about the impact of the symptoms on the patient's lifestyle. Patients may overlook signs and symptoms or believe they are due to 'old age' if a slowly progressive valve disease gradually limits their daily activities.
- Ask about past medical history of cardiovascular disease, rheumatic fever, connective tissue disorders and any other comorbidities. In addition, look for family history of valvular disease (bicuspid aortic valve).
- Remember that many older people may attribute their symptoms to ageing and not report them to you. They may, therefore, never be diagnosed.
- Think about opportunities when you may have more time with older patients to proactively use chest auscultation, such as the annual flu jab.

Examination

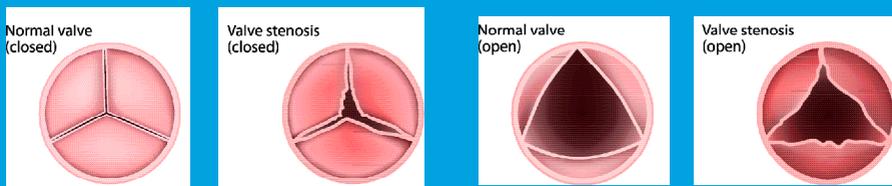
- Check the patient's pulse rate and rhythm, and take the blood pressure.
- Auscultate the heart for an abnormal cardiac murmur.
- If you identify an abnormal heart murmur incidentally in an asymptomatic patient, remember that a low-intensity murmur may be present in severe heart valve disease.

Investigations

- Initial investigation should include a full blood count, urea and electrolytes, thyroid function tests and twelve lead electrocardiogram (ECG).
- Echocardiography is indicated in any patient with a heart murmur if there is any suspicion of underlying valve disease on clinical evaluation. It is key to confirming the diagnosis and assessing the severity and prognosis of heart valve disease.⁴
- You may need to consider a chest X-ray to help in the differential diagnosis of a breathless patient and to exclude lung disease.



Heart Valve Disease



Referring Patients with Suspected Heart Valve Disease

- Reassure the patient, explaining that you have found a heart murmur that might be responsible for their symptoms, and that you are referring them to hospital for further investigations.
- The place and urgency of referral depend on the patient's signs and symptoms, and comorbidities:
 - Patients presenting with cardiac sounding chest pain, haemodynamically compromised or acute breathlessness require rapid assessment through normal cardiology pathways.
 - Chest pain and/or palpitations at rest may indicate a coexisting underlying cardiac disease and urgent referral is suggested.
 - Exertional chest pain and/or exertional palpitations may indicate serious disease and are 'Red Flag' symptoms. The patient should be referred urgently to cardiology or, if available, arrange direct referral for echocardiography.
 - Symptomatic patients with a heart murmur but without exertional symptoms should be offered a non-urgent referral to cardiology.
 - Asymptomatic patients with heart murmur should be offered an appointment for open-access echocardiography or a non-urgent referral to cardiology.

Heart Valve Disease

Diagnosis and Referral

Patient presents with signs and symptoms:

- Shortness of breath on exertion
- Chest tightness and/or pain
- Palpitations
- Fatigue
- Dizziness and fainting



Clinical history
Examination including
chest auscultation, pulse
and blood pressure

Heart murmur
found in
asymptomatic
patient

Heart murmur, clinical history and examination suggest valve disease

Chest pain
and/or
palpitations
at rest

Urgent
admission to
hospital

Exertional
chest pain
and/or
exertional
palpitations

Urgent
referral
to cardiology

Heart
murmur
and signs and
symptoms
with
recent
deterioration

Urgent
referral
to cardiology

Heart
murmur
and signs and
symptoms
with no
recent
deterioration

Non-urgent
referral to
cardiology

Heart
murmur and
asympto-
matic

Non-urgent
referral to
cardiology or
open-access
echocardiog-
raphy

This chart should be read in conjunction with the
'Heart Valve Disease: Practical Guidance for Primary Care' booklet.

www.heartvalvevoice.co.uk



Conclusion

Access to effective treatment for heart valve disease should be available for all suitable patients regardless of where they live or their age and sex. However, in the UK there are wide geographical variations in rates of access to valve surgery that are not explained by demographic factors.⁹ Elderly people and women in general are also less likely than younger men to receive effective treatment for their heart valve disease.⁹

Early detection of heart valve disease enables timely treatment and could be lifesaving. Barriers to referral and treatment for heart valve disease exist at all levels within the NHS,⁹ but most patients are likely to first seek help for their symptoms in primary care. As GPs, we currently use auscultation routinely in less than two-fifths of patients whose symptoms suggest heart valve disease. We need to use our stethoscopes more often to check for heart valve disease when an older patient reports symptoms, and potentially consider using this basic investigation during routine consultations with our elderly patients.

Once identified, patients with suspected heart valve disease should be referred appropriately for confirmation of the diagnosis and consideration of treatment.

Mortality following cardiac surgery has continued to fall in the UK in spite of rising numbers of high-risk patients,¹¹ and modern interventions can offer improved outcomes, physical functioning and quality of life to our elderly patients.



More information and useful links



- Heart Valve Voice: <http://www.heartvalvevoice.com>
- Patient heart valve disease symptom questionnaire: http://www.heartvalvevoice.com/application/files/9014/5882/2628/Symptoms_tracker.pdf
- Patient consultation guide: http://www.heartvalvevoice.com/application/files/4214/5883/1158/Consultation_Guide_copy_2.pdf
- European Society of Cardiology (ESC) clinical practice guidelines on the management of valvular heart disease, including advice for GPs: <https://www.escardio.org/Guidelines/Clinical-Practice-Guidelines/Valvular-Heart-Disease-Management-of>
- British Heart Valve Society (professional society aiming to improve the care of patients with heart valve disease): <http://www.bhvs.org.uk>
- British Cardiac Patients Association (national charity offering support and advice to cardiac patients, their families and carers): www.bcpa.co.uk

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- 11 Society of Cardiothoracic Surgery of Great Britain & Ireland. Blue Book Online: <http://bluebook.scts.org> (last accessed 13 February 2015)