

# Valvular disease

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This issue's special feature, on which these questions are based, was commissioned from independent authors. The information in the box below should help readers to identify knowledge gaps and undertake continuing professional development. Readers are also invited to complete the questions overleaf to test their knowledge of the articles, and send their answers, together with a stamped and addressed C5 envelope, to:

Life-long Learning— Valvular disease  
*Hospital Pharmacist*  
1 Lambeth High Street  
London SE1 7JN



Entries must be received by 27 May 2008.  
Results will be returned with a certificate of completion.

Name: \_\_\_\_\_

RPSGB registration number: \_\_\_\_\_

Address: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

Post code: \_\_\_\_\_

### Life-long Learning competition

Details of the next Life-long Learning competition are still being finalised.

In the meantime, readers are invited to continue to answer the Life-long Learning questions overleaf for continuous professional development purposes. Answers will be marked as usual and a certificate of completion will be sent in return. Accreditation by the College of Pharmacy Practice remains unchanged.

### How to undertake continuing professional development

#### Identify knowledge gaps

- ◆ How the most common types of valvular disease are managed
- ◆ How the risk of thrombosis and endocarditis is managed following valve replacement surgery

#### Act

- ◆ Read the articles in this issue
- ◆ Test your knowledge by answering the multiple-choice questions overleaf

#### Evaluate

- ◆ What have you learnt?

- ◆ How has it added value to your practice?
- ◆ What will you do now and how will this be achieved?

The feature on valvular heart disease has been accredited by the College of Pharmacy Practice against the Royal Pharmaceutical Society's general and hospital practice areas of competence, which can be accessed via *Hospital Pharmacist* online ([www.pjonline.com/hplinks](http://www.pjonline.com/hplinks))  
Reading the feature and completing the questions will help readers to fulfil aspects

of the following competency areas, depending on their area of practice and application of learning: G1, G5, G8, G9, HP1, HP2, HP4, HP5, HP10.

Completion of the questions entitles undergraduates to one point towards the Professional Development Certificate, a joint initiative between the British Pharmaceutical Students' Association and the College. The assistance of the College of Pharmacy Practice is acknowledged in producing the CPD elements of this month's **Special feature**.



To answer the questions, tick either the True or False column

	True	False		True	False
<b>1. Valvular heart disease (VHD):</b>			<b>6. Regarding replacement valves:</b>		
a) Is always caused by streptococcal infections			a) Biological valves are more durable than mechanical valves		
b) Is rarely treated surgically nowadays			b) Mechanical valves are preferred in older patients		
c) Can be caused by certain appetite suppressants			c) Biological valves are less thrombogenic than mechanical valves		
d) Is often seen in conjunction with comorbidities			d) Metallic prostheses are contraindicated in pregnancy		
e) Can only be diagnosed using Doppler studies			e) Bjork-Shiley valves are recommended for patients with comorbidities		
<b>2. Aortic stenosis:</b>			<b>7. Regarding complications of valve replacement:</b>		
a) Is the rarest form of VHD			a) Valve thrombosis does not occur in those taking warfarin		
b) Only affects people aged over 65 years			b) Prostheses in the aortic valve have the highest risk of embolism		
c) Has similarities to atherosclerosis			c) Aortic valve failure causes death after about three weeks		
d) Should only be treated surgically if left ventricular dysfunction has occurred			d) "Early" endocarditis can be caused by a contaminated central line		
e) Should be treated with beta-blockers if heart failure develops			e) Haemolysis most commonly occurs with "caged ball" devices		
<b>3. Aortic regurgitation (AR):</b>			<b>8. Concerning endocarditis:</b>		
a) Can be caused by diseases of the aortic root			a) It has a low mortality rate		
b) Can lead to ischaemia and angina			b) It is a high risk in patients with replacement heart valves		
c) Should be treated surgically at the onset of symptoms			c) Clindamycin is an alternative antibiotic for patients allergic to penicillin undergoing dental procedures		
d) Should be treated surgically even in patients who are not experiencing symptoms			d) Intravenous amoxicillin and gentamicin are used as prophylaxis during procedures involving general anaesthesia		
e) Has a poor prognosis if the left ventricle measures over 50mm in diameter			e) NICE guidelines suggest that antibiotic prophylaxis should not be offered to patients for dental procedures		
<b>4. Regarding mitral stenosis:</b>			<b>9. Warfarin:</b>		
a) Symptoms develop rapidly			a) Reduces the concentration of vitamin E-dependent clotting factors		
b) It is defined as critical stenosis if the valve area is less than 2cm <sup>2</sup>			b) Crosses the placenta		
c) Long-acting nitrates can be used to relieve dyspnoea			c) Produces an anticoagulant effect within 24 hours		
d) Percutaneous mitral commissurotomy is an alternative to surgery			d) Has a half-life of 6–12 hours		
e) It has a poor prognosis once symptoms develop			e) Must be monitored by a cardiologist for six months following initiation		
<b>5. Concerning drugs used for VHD:</b>			<b>10. Regarding anticoagulation therapy:</b>		
a) Sodium nitroprusside can be used before surgery in patients with poorly tolerated AR			a) The increased risk of bleeding with concurrent use of antiplatelet drugs is shown through an increased INR		
b) Patients can receive sodium nitroprusside in outpatient clinics			b) It should be stopped in patients with mechanical heart valves who require a tooth extraction		
c) ACE inhibitors should only be initiated after patients have undergone valve replacement			c) It is essential in patients with homografts, even if they have no other risk factors		
d) Dihydropyridine calcium channel blockers can be used to treat comorbid hypertension			d) Coronary angiography can be safely performed if a patient's INR is less than 5		
e) Diuretics can help reduce mitral regurgitation			e) The effect of warfarin is potentiated by metronidazole, amiodarone and cimetidine		

Answers will appear in the June issue

