

Arrhythmias

This issue's special feature, on which these questions are based, was commissioned from an independent author. The Life-long Learning scheme is supported by an educational grant from Mayne Pharma but the company has no editorial input. The scheme is open to all pharmacists. The information in the box below (right) should help readers to identify knowledge gaps and undertake continuing professional development. Readers are also invited to complete the questions overleaf on arrhythmias, to test their knowledge of the articles, and send their answers, together with a stamped and addressed A5 envelope, to:

Life-long Learning — Arrhythmias

Hospital Pharmacist

1 Lambeth High Street

London

SE1 7JN

Entries must be received by Wednesday, 30 March. Results will be returned with a certificate of completion which, in the case of College of Pharmacy Practice members, will count towards their continuing education requirements.

Mayne Pharma is offering a place as part of its delegation to the European Association of Hospital Pharmacists conference in Geneva in spring 2006 to the



entrant who achieves the highest marks overall in this series of exercises. The best six scores from the eight exercises in the series (November 2004 – July/August 2005) will be taken into consideration. This is the third set of questions.

The runner-up will receive travel, accommodation and registration for the *Hospital Pharmacist* conference in autumn 2005. Third and fourth place, respectively, will receive Pharmaceutical Press vouchers and British Society for the History of Pharmacy china mugs. Further details on this scheme can be found in *Hospital Pharmacist* (2004;11:436) and at www.pjonline.com/noticeboard/lifelong

Name _____

College member: Yes No

RPSGB registration number: _____

Address: _____

Post code: _____

Continuing education

This article is accredited as suitable for continuing education by the College of Pharmacy Practice. Completion of the questions will count towards the continuing education requirements of college members.

Completion of the questions entitles pharmacy undergraduates to one point towards the Professional Development Certificate, a joint initiative between the British Pharmaceutical Students' Association and the College of Pharmacy Practice



Continuing professional development

Identify knowledge gaps

- ◆ Understand the different types of arrhythmias that can occur
- ◆ Understand the place of drug therapy within the overall disease management
- ◆ Understand the other forms of intervention that can be employed

Act

- ◆ Read the articles in this issue
- ◆ Test your knowledge by answering the multiple-choice questions on arrhythmias 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 Royal Pharmaceutical Society's areas of competence for pharmacists are listed in "Plan and record", (available at www.rpsgb.org/education).

The assistance of the College of Pharmacy Practice is acknowledged in producing the CPD elements of this month's special feature. The CPD feature of the Life-long Learning series will be undertaken in association with specialist pharmacy organisations.

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

	True	False		True	False
1. Atrial fibrillation occurs more commonly in patients with:			6. Regarding class I anti-arrhythmic drugs from the Vaughan Williams classification:		
a) Heart failure			a) Mexilitene is in class IB		
b) Hypothyroidism			b) They work by blocking the potassium channels		
c) Hypertension			c) Propafenone is in class IA		
d) Asthma			d) Class IC drugs shorten the action potential		
e) Diabetes			e) Flecainide is in class IC		
2. The sinoatrial node of the heart:			7. Class II anti-arrhythmic drugs from the Vaughan Williams classification:		
a) Produces electrical impulses at a normal resting rate of 70 per minute			a) Include the beta-blockers		
b) Is the only pacemaker mechanism in the heart			b) Slow SA nodal and AV nodal firing		
c) Is located between the left and right ventricles			c) Can be used to return the heart back to sinus rhythm		
d) Produces impulses which are conducted across the atria			d) Act principally on the ventricles		
e) Can be affected by parasympathetic stimulation via the vagal nerve			e) Can cause an increase in heart rate		
3. The atrioventricular node of the heart:			8. Regarding non-drug interventions for the treatment of arrhythmias:		
a) Is located between the right atria and ventricles			a) Direct current cardioversion is successful at the first attempt in 80 per cent of cases of atrial fibrillation		
b) Conducts electrical impulses from the right atria to the bundle of His			b) Cardiopulmonary resuscitation should be suspended between attempts at defibrillation		
c) Is able to generate electrical impulses of 70 beats per minute if the sinoatrial node fails			c) Radiofrequency ablation is usually performed under anaesthesia in adults		
d) Is represented by QRS waves on the electrocardiogram			d) Defibrillation is used to treat atrial flutter		
e) Completely fails to conduct impulses during first degree heart block			e) Direct current cardioversion is performed under anaesthesia		
4. The P wave will be absent from the electrocardiogram during:			9. Regarding devices used to treat arrhythmias:		
a) Sinus rhythm			a) Tachycardias are a primary indication for pacemaker insertion		
b) Atrial flutter			b) Leads from the pacemaker can be placed in both the atria and the ventricles		
c) Sinus arrest			c) The pacemaker is located in the abdomen		
d) Atrial fibrillation			d) Internal cardioversion defibrillators (ICD) can discharge electric shocks		
e) Ventricular fibrillation			e) ICDs are used in patients with ventricular tachycardias		
5. Ventricular tachycardias:			10. The following is a treatment of choice:		
a) Can cause palpitations			a) Magnesium sulphate for atrial flutter		
b) Generally increase the ventricular rate to over 300 beats per minute			b) Direct current cardioversion for atrial fibrillation		
c) Are diagnosed as a result of five or more consecutive extra ventricular beats			c) Amiodarone for bradycardia		
d) Can be caused by a re-entry circuit			d) Defibrillation for ventricular fibrillation		
e) Are called non-sustained when they last for 30–60 seconds			e) Radiofrequency ablation for torsades de pointes		

Answers will appear in the April 2005 issue.

