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## Glaucoma

This issue's special feature, on which these questions are based, was commissioned from independent authors. 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 glaucoma, to test their knowledge of the articles, and send their answers, together with a stamped and addressed A5 envelope, to:

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

Entries must be received by Monday, 5 September. Results will be returned with a certificate of completion.

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 final set of questions.

The runner-up will receive registration and expenses for the *Hospital Pharmacist* conference this autumn. 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](http://www.pjonline.com/noticeboard/lifelong).

Your name, address and scores will be held on a database for the purpose of awarding prizes. Should you wish your details not to be held in this way, please tick the box. If you do this, you will be sent a certificate, but you will be ineligible for a prize.

Name \_\_\_\_\_

College member: Yes  No

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

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

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

### Continuing education

This article is accredited as suitable for continuing education (CE) by the College of Pharmacy Practice. Completion of the questions will count towards the CE requirements of College members. Should you wish us to pass your scores to the College for this purpose, please tick the box (top right) showing that you are a College member.

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.



### Continuing professional development

#### Identify knowledge gaps

- ◆ To understand the different types of glaucoma and the various causative factors
- ◆ To understand the use of medicines in the management of glaucoma

#### Act

- ◆ Read the articles in this issue
- ◆ Test your knowledge by answering the multiple-choice questions on glaucoma 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](http://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. Further information on how hospital pharmacists are approaching the challenges of CPD can be found in articles in the February issue of *Hospital Pharmacist* (2005;12:65–72).



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

	True	False		True	False
<b>1. Major risk factors for glaucoma include:</b>					
a) Being elderly					
b) Having corneas of above average thickness					
c) Having reduced intraocular pressure (IOP)					
d) Being Afro-Caribbean					
e) Being Chinese, for acute angle closure glaucoma					
<b>2. Regarding IOP:</b>					
a) Raised IOP is always associated with glaucoma					
b) IOP is usually at its lowest around breakfast time					
c) Normal IOP is between 10 and 21mmHg					
d) Variations throughout the day are less in patients with untreated glaucoma					
e) Normal diurnal variation is in the range 6 to 8mmHg					
<b>3. In the IOP-related diagnosis of glaucoma:</b>					
a) Indentation tonometry is the method most commonly used					
b) Applanation tonometry uses a ratio of force to area					
c) Excessive tears can lead to an underestimation of IOP					
d) Perkins hand-held tonometers are considered the "gold standard"					
e) Air-puff tonometers are frequently used by optometrists					
<b>4. In the non-IOP related diagnosis of glaucoma:</b>					
a) Direct gonioscopy is unsuitable for use in children					
b) Splinter haemorrhages are most frequently seen in people with normal-pressure type glaucoma					
c) Retinal nerve fibre layer assessment uses red light					
d) Kinetic perimetry provides a two-dimensional measurement of visual field					
e) A Goldmann perimeter is commonly used to carry out static perimetry					
<b>5. The following agents can be used long-term in patients with glaucoma:</b>					
a) Timolol					
b) Apraclonidine					
c) Brimonidine					
d) Acetazolamide					
e) Brinzolamide					
<b>6. Effects that are believed to contribute to the mode of action of the following agents are:</b>					
a) Guanethidine — allows a lower concentration of adrenaline to be applied to the eye					
b) Pilocarpine — closes the trabecular meshwork					
c) Brimonidine — renders ciliary muscle less resistant to the flow of aqueous humour					
d) Latanoprost — renders ciliary muscle less resistant to the flow of aqueous humour					
e) Betaxolol — blocks beta-2 mediated active transport					
<b>7. The following agents are selective for beta-1 adrenoceptors:</b>					
a) Brimonidine					
b) Apraclonidine					
c) Adrenaline					
d) Betaxolol					
e) Timolol					
<b>8. Regarding carbonic anhydrase inhibitors:</b>					
a) These catalyse the interconversion between carbon monoxide and bicarbonate ion					
b) Acetazolamide is generally administered topically					
c) Dorzolamide is generally used three times a day in combination with beta blockers					
d) Dorzolamide is generally less well tolerated than brinzolamide					
e) Systemic agents reduce IOP by 25–30 per cent					
<b>9. Side effects of glaucoma treatments include:</b>					
a) Dry mouth for pilocarpine					
b) Increased conjunctival pigmentation for adrenaline					
c) Eyelid swelling for apraclonidine					
d) Bronchoconstriction for timolol					
e) Hypertension for timolol					
<b>10. Further side effects of glaucoma treatments include:</b>					
a) Weight gain for methazolamide					
b) Depression for ethoxzolamide					
c) Darkening of eyelashes for bimatoprost					
d) Blurred vision for acetazolamide					
e) Eye inflammation for latanoprost					

