

Spinal cord injury

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 spinal cord injury, to test their knowledge of the articles, and send their answers, together with a stamped and addressed A5 envelope, to:

Life-long Learning — spinal cord injury
Hospital Pharmacist
1 Lambeth High Street
London SE1 7JN

Entries must be received by Monday, 25 April. 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 fourth 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.

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 (above 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

- ◆ Understand the nature of spinal cord injury
- ◆ Understand the principles of the acute and long-term management of spinal cord injury

Act

- ◆ Read the articles in this issue
- ◆ Test your knowledge by answering the multiple-choice questions on spinal cord injury 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. 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).

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

	True	False		True	False
1. Spinal cord injury:					
a) Affects approximately 0.07% of the population in the UK					
b) Gives rise to 8,000 new cases per year in the UK					
c) Is most commonly caused by sports accidents					
d) Is predominantly a condition of young males					
e) Is associated more commonly with motorcycle accidents than with car accidents					
2. In relation to the spine:					
a) It comprises the spinal cord and vertebrae					
b) It is divided into four main sections					
c) Spinal nerves leave the spinal cord throughout all four sections					
d) Spinal nerves leaving the spinal cord in the thoracic spine are predominantly sensory rather than motor					
e) The spinal cord terminates at level L4/L5					
3. With spinal cord injury:					
a) A complete lesion is said to occur whenever both motor and sensory neurones are affected					
b) A lesion in the area C1–C3 will always result in respiratory problems					
c) Patients with complete lesions in the cervical spine will suffer paraplegia					
d) The degree of long-term disability for patients with incomplete lesions is relatively straightforward to predict					
e) In up to 9 per cent of patients presenting to accident and emergency departments, their spinal cord injury may not be recognised					
4. In the acute management of patients with spinal cord injury:					
a) Most spinal injury units in the UK recommend the use of high dose intravenous methylprednisolone					
b) Patients are at risk of developing renal failure					
c) Acute respiratory distress syndrome may occur in 10 per cent of patients					
d) Patients are likely to need ventilation if their lesion occurs at C4 or above					
e) Most patients will require anticoagulation					
5. In spinal injuries:					
a) The sacral area is at particular risk of pressure sore development					
b) Established pressure sores usually resolve with alginate dressings					
c) Stimulant laxatives should be avoided in managing constipation associated with spinal cord injuries					
d) The use of a bulking agent may be particularly useful in patients with lesions of the sacral spine					
e) Erectile dysfunction does not usually respond to standard treatments such as sildenafil or apomorphine					
6. In autonomic dysreflexia:					
a) The condition is confined to patients with lesions at level T2 and above					
b) An episode can be triggered by trauma to the skin					
c) Nifedipine is the only licensed treatment					
d) Intravenous hydralazine is not normally effective in patients who do not respond to nifedipine					
e) Terazosin is sometimes of value in prophylaxis of the condition in susceptible patients					
7. In bladder problems associated with spinal cord injury:					
a) These are most unlikely to occur with lesions within the sacral spine					
b) Lesions below T12 usually result in acontractile bladder					
c) Lesions above T6 usually result in a reflex bladder					
d) Lesions between T6 and T12 usually result in a "mixed" bladder					
e) A patient with acontractile bladder is particularly prone to repeated urinary tract infections					
8. In managing bladder problems associated with spinal cord injury:					
a) Anticholinergic agents are first line treatment in acontractile bladder problems					
b) The use of anticholinergic agents is limited mainly by side effects					
c) Oxybutynin is the only agent licensed for use as an intra-vesicular instillation					
d) Alpha-1 adrenoceptor blockers are of use in managing detrusor sphincter dyssynergia					
e) High dose ascorbic acid is used to maintain patency of in-dwelling catheters					
9. In spasms associated with spinal cord injury:					
a) These often occur immediately after the initial injury					
b) Spasms are associated with an increased risk of deep vein thrombosis					
c) Baclofen can cause seizures if treatment is stopped rapidly					
d) Dantrolene acts on calcium pathways within muscle fibres					
e) About 20 per cent of patients receiving oral baclofen are likely ultimately to require the drug to be delivered by an implantable intrathecal device					
10. In the management of pain associated with spinal cord injury:					
a) Pain can occur in the limbs of patients who otherwise have no sensation					
b) Conventional analgesics have little role to play					
c) Gabapentin is considered to act primarily as a gamma-aminobutyric acid agonist in its analgesic effect					
d) Non-steroidal anti-inflammatory drugs are often given with gastro-protective agents to reduce risk of ulceration					
e) Clonazepam may be effective against neuropathic pain even when spasms are absent					

Answers will appear in the May 2005 issue.

