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# Breast cancer

Welcome to Life-long Learning.

The special feature on which the questions are based is commissioned from independent authors. The 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 on the right should help readers to identify knowledge gaps and complete continuing professional development. Readers are also invited to complete the questions overleaf on breast cancer, to test their knowledge of the articles, and send their answers, together with a stamped and addressed A5 envelope, to:

**Life-long learning — Breast Cancer**  
Hospital Pharmacist  
1 Lambeth High Street  
London  
SE1 7JN

Entries must be received by Wednesday, 29 December.

Results will be returned with a certificate of completion which, in the case of college 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 spring 2006 to the entrant who achieves the highest marks overall in this series of exercises. The best six scores from the eight exercises will be taken in to consideration. This is the first set of questions. The runner-up will receive travel, accommodation and registration to the *Hospital Pharmacist* conference in autumn 2005. Third and fourth place respectively will receive pharmaceutical press vouchers and Royal Pharmaceutical Society historic china mugs.

### Continuing professional development

#### Identify knowledge gaps

- ◆ What factors are believed to increase the risk of breast cancer?
- ◆ What are the different stages of the disease?
- ◆ What pharmacological treatments are available for the treatment of the disease?

#### Act

- ◆ Read the articles in this issue
- ◆ Test your knowledge by answering the 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 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 British Oncology Pharmacy Association is acknowledged in producing the CPD elements of this month's special feature

### 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



Your name \_\_\_\_\_

College member: Yes  No

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

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

Post Code: \_\_\_\_\_



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

Although we will correct material errors, *Hospital Pharmacist* does not have the resources to enter into correspondence about the answers.

	True	False		True	False
<b>1. The following factors have been linked to an increased risk of breast cancer:</b>					
a) Early menarche					
b) Being born in Africa					
c) First full term pregnancy at the age of 35					
d) Never giving birth					
e) Being thin					
<b>2. Regarding stage III breast cancer as defined by the Union Internationale Contre Cancer:</b>					
a) Survival at 15 years is 40 per cent					
b) It is not metastatic					
c) There is always nodal involvement					
d) It can be defined as primary breast cancer					
e) It can include patients whose tumour is T1					
<b>3. Regarding the epidemiology of breast cancer:</b>					
a) It is the most common cause of death in women aged 35–55					
b) The incidence decreases after the age of 50					
c) It is responsible for over 10,000 deaths each year in the UK					
d) There are around 20,000 new cases in the UK each year					
e) The mortality rate from breast cancer is currently increasing					
<b>4. Survival from breast cancer:</b>					
a) Was decreasing during the 1990s					
b) Was 78 per cent at five years for patients diagnosed between 1996 and 1999					
c) Is 40 per cent at 15 years for patients diagnosed with metastatic disease					
d) Is 55 per cent at 15 years for patients diagnosed with Stage II disease					
e) Is 95 per cent at 15 years for patients diagnosed with Stage I disease					
<b>5. According to the Oxford Overview for adjuvant treatment of breast cancer:</b>					
a) Five years of tamoxifen results in a 28 per cent reduction in mortality for oestrogen receptor (ER) positive patients					
b) One year of tamoxifen results in a 24 per cent reduction in mortality for ER-positive patients					
c) Patients receiving tamoxifen have a 50 per cent increased risk of endometrial cancer compared with placebo					
d) Chemotherapy results in a 15 per cent reduction in recurrence in node positive patients under the age of 50					
e) Chemotherapy results in a 11 per cent reduction in mortality in node negative patients under the age of 50					
<b>6. Regarding surgical procedures for patients with early breast cancer:</b>					
a) Lymph node sampling occurs to check if the cancer has spread from the breast					
b) Wide local excision is a form of lumpectomy					
c) Simple mastectomy involves the removal of all breast tissue, including the skin, nipple, areola, the axillary tail and the pectoralis minor muscle					
d) Quadrantectomy is often used in patients with a tumour that has a more diffuse appearance					
e) Adjuvant therapy after surgery should not always be offered					
<b>7. Regarding adjuvant chemotherapy:</b>					
a) It can be given to downsize the tumour before surgery					
b) Its place in therapy was first established in 1986					
c) Now includes taxanes such as epirubicin and doxorubicin					
d) Can cause cardiotoxicity with the anthracyclines					
e) It was introduced as the Bonadonna CMF regimen of cyclophosphamide, methotrexate and fludarabine					
<b>8. Regarding adjuvant radiotherapy:</b>					
a) The first randomised trial took place in the 1960s					
b) The Stockholm study of 1986 showed survival benefits for patients receiving this treatment					
c) A consensus statement now recommends it for premenopausal patients with tumours larger 5cm					
d) The 1999 overview by the Overgaard group found a significant survival benefit for patients receiving tamoxifen and radiotherapy as opposed to tamoxifen alone					
e) Early attempts at producing overviews on radiotherapy may have failed to demonstrate the full benefits because of variations in technique and dose					
<b>9. The study comparing letrozole and tamoxifen in the neoadjuvant setting found:</b>					
a) Patients receiving tamoxifen were more likely to have breast conserving surgery than a mastectomy					
b) Fifty-five per cent of patients taking letrozole had a response, when determined by clinical palpation					
c) Overall response rate determined by clinical palpation was significantly superior in the letrozole group					
d) The dose of letrozole was 0.5mg					
e) Medication was taken for three months before surgery					
<b>10. The hormone oestrogen:</b>					
a) Is the main hormone involved in the development of breast cancer					
b) Is antagonised by the aromatase inhibitor anastrozole					
c) Is degraded by tamoxifen					
d) Can be suppressed by ovarian ablation in premenopausal women					
e) Is suppressed by endocrine therapy					

Answers will appear in the January 2005 issue.

