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# Health economics

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 should help readers to identify knowledge gaps and undertake continuing professional development. Readers are also invited to complete the questions overleaf on health economics, to test their knowledge of the articles, and send their answers, together with a stamped and addressed A5 envelope, to:

Life-long Learning — Health economics  
Hospital Pharmacist  
1 Lambeth High Street  
London SE1 7JN

Entries must be received by Thursday 6 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 spring 2007 to the entrant who achieves the highest marks overall in this series of exercises. The best eight scores from the ten exercises in the series (September 2005 – July/August 2006) 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 in autumn 2007. 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: \_\_\_\_\_

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

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

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

## How to undertake continuing professional development

### Identify knowledge gaps

- ◆ To understand the main types of health economic analyses performed and the differences between them
- ◆ To be aware of the issues to look out for when evaluating economic data

### Act

- ◆ Read the articles in this issue
- ◆ Test your knowledge by answering the multiple-choice questions on pulmonary hypertension 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 health economics 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/links/hp](http://www.pjonline.com/links/hp))

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, G7, G8, HP3, HP11.

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.

Further information on how hospital pharmacists are approaching the challenges of CPD can be found in articles in the February 2005 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. Health economic studies:</b>			<b>6. Considering cost-effectiveness:</b>		
a) Are relative rather than absolute			a) Cost-effectiveness analysis produces the same result regardless of the type of model used for analysis		
b) Are often used by the pharmaceutical industry in promotional materials			b) Cost-effectiveness is the most widely used health economic approach		
c) Can be used to compare the costs of health interventions worldwide			c) Cost-effectiveness analysis is used to compare value for money of two interventions with differing outcomes		
d) Usually help reduce health care budgets			d) Incremental cost-effectiveness is the ratio between outcome and effectiveness		
e) Provide definitive answers to aid resource allocation decisions			e) In economic studies for new drugs, the comparator drug should be the most widely used drug rather than the most cost-effective drug		
<b>2. Using economics for decision making:</b>			<b>7. Cost-utility analyses:</b>		
a) Pharmacoeconomic data can be useful for those making formulary decisions			a) Are used to compare the cost of treatments per QALY gained		
b) Pharmacists may require further explanation of economic techniques from companies presenting them with data			b) Are seldom used nowadays		
c) When making formulary decisions, pharmacists need only take into account direct costs to the trust			c) Take into account the patient's daily living activities		
d) The techniques used for data collection are an important factor in determining the validity of an economic analysis			d) Often compare costs per QALY gained		
e) Some drugs may have a greater economic impact in areas outside of the drugs budget			e) May use HRQoL measures		
<b>3. Regarding health economic models:</b>			<b>8. Considering other analysis techniques:</b>		
a) They are designed to rule out bias in comparisons			a) Cost-minimisation analysis may be appropriate to compare two related drugs with the same effectiveness		
b) They can be used to study the cost of an intervention over a longer period than may be ethical in a clinical trial			b) Cost-minimisation models can only be used when programmes produce identical effectiveness levels		
c) They can help industries decide whether it is financially viable to progress with the development of a particular drug			c) Burden of illness studies take into account both direct and indirect costs to patients		
d) Resource use data is generally gathered during phase II clinical trials			d) Burden of illness studies take into account wider costs to society or the health services		
e) Discounting should be taken into account when study outcomes are assessed for more than five years			e) Marginal analysis uses average benefits and average costs of treatment		
<b>4. Regarding the QALY (1):</b>			<b>9. Regarding other models and analyses:</b>		
a) It is the second most common measure used to translate health gain into a monetary value			a) Sensitivity analyses can be used when costs are estimated or studies are non-randomised		
b) One year in perfect health is defined as one QALY			b) Decision analytic models are useful when analysing time sensitive events		
c) QALYs have a value of between zero and one			c) Markov models use a tree-like structure to compare outcomes		
d) It is commonly used by NICE to describe health gains			d) HYE are often used in economic studies as they take into account an individual's preferences		
e) NICE would generally consider an intervention with a cost-effectiveness ratio of up to £35,000 per QALY as being cost-effective			e) HRQoL measures include intangible costs such as emotional strain		
<b>5. Regarding the QALY (2):</b>			<b>10. Benefits and challenges:</b>		
a) NICE regards QALYs to be equivalent for all diseases and all patients			a) The main difficulty with designing cost-benefit studies is quantifying benefits in monetary terms		
b) Conventional QALYs measure immediate and delayed outcomes as equivalent			b) Cost-benefit analyses are a useful tool to compare the relative costs of competing treatments		
c) They can be derived from HRQoL measures			c) Disease-specific quality of life measures may better reflect clinical benefits, although generic measures may be more useful for comparing costs and benefits from different therapeutic areas		
d) Conventional QALYs take into account patient attitude to risk			d) DALYs have been criticised for including social and economic value judgements		
e) HYE differ from QALYs by taking into account how many years the patient has suffered from the disease			e) Health economic studies are only useful after clinical trials have been completed		

Answers will appear in the April 2006 issue

