

PREPARATION EXAM

PHARMACOECONOMICS

EDITION CODE: C12-2006-04



COUNCIL FOR CONTINUING PHARMACEUTICAL EDUCATION
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**PREPARATION EXAM
PHARMACOECONOMICS (C12-2006-04)**

- 1. Factors associated with increases in health care cost in Canada include all of the following EXCEPT:**
 - a) increase in the Canadian birth rate
 - b) inflation
 - c) increase in drug expenditures
 - d) aging population

- 2. The discipline of pharmacoeconomics focuses on:**
 - a) clinical trials
 - b) reducing the cost of health interventions
 - c) the overall value of pharmaceutical products, services and programs
 - d) providing cost-containment information for health care decision makers

- 3. Objectives of pharmacoeconomics include all of the following EXCEPT:**
 - a) identify less expensive alternatives
 - b) identify, measure, value and compare outcomes of alternatives
 - c) identify, measure, value and compare costs of alternatives
 - d) support decision-making processes

- 4. All of the following statements are true EXCEPT:**
 - a) in Canada the right to commercialize a medication is granted by Health Canada
 - b) the Notice of Compliance is granted on the basis of the safety, the efficacy and the economic profiles of a medication
 - c) provincial drug plans represent a considerable share of the pharmaceutical market in Canada
 - d) it is essential to the commercial success of a drug to be added to the provincial reimbursement list

- 5. Pharmacoeconomic research can be used by physicians or pharmacists for all of the following EXCEPT:**
 - a) formulary decision making
 - b) pricing decisions for a new drug
 - c) establishment of best practice guidelines
 - d) support for development of pharmaceutical services

- 6. The entity that makes reimbursement recommendations to provinces and territories other than Quebec is the:**
- a) Canadian Agency for Drugs and technologies in Health (CADTH)
 - b) Common Drug Review (CDR)
 - c) Health Canada
 - d) federal formulary committee
- 7. In pharmacoeconomic studies, the cost of hospitalization is:**
- a) a health care sector cost
 - b) a patient and family cost
 - c) an intangible cost
 - d) an indirect cost
- 8. The cost of producing one extra unit of output is called the:**
- a) average cost
 - b) fixed cost
 - c) marginal cost
 - d) opportunity cost
- 9. All of the following statements regarding perspective in pharmacoeconomics are true EXCEPT:**
- a) the perspective represents the viewpoint by which a pharmacoeconomic analysis is performed
 - b) the most common perspectives are those of society, the health care system, private payers, and the patient and their family
 - c) the selection of a specific perspective for an analysis will have a significant impact on the costs that will be taken into consideration
 - d) because of the importance placed on the patient and its family, most pharmacoeconomic studies performed in Canada adopt a “patient family” perspective
- 10. All of the following are steps of the costing process EXCEPT:**
- a) cost valuation
 - b) measurement of resources used
 - c) ratio estimation
 - d) identification of resources

11. In pharmacoeconomic evaluations, outcomes can be defined in terms of each the following EXCEPT:

- a) natural units
- b) logic equations
- c) quality adjusted life-years (QALYs)
- d) monetary value

12. The efficacy of an intervention that is preferred for a pharmacoeconomic evaluation is:

- a) effectiveness
- b) observed efficacy
- c) estimated efficacy
- d) all of the above

13. All of the following instruments can be used to estimate utility EXCEPT:

- a) Standard Gamble
- b) SF-36
- c) EQ-5D
- d) Time Trade-Off

14. Using the Time Trade-Off method, respondents were found to be indifferent between remaining in a given health state for 10 years or having perfect health for 6 years. The utility value of that health state would be:

- a) 6 QALYs
- b) 0.6 QALY
- c) 6
- d) 0.6

15. All of the following statements related to utility are true EXCEPT:

- a) the EQ-5D gives an indirect measure of utility
- b) the EQ-5D covers 5 health dimensions while the Health Utility Index covers 7 health dimensions
- c) the Standard Gamble gives a direct measure of utility
- d) the Standard Gamble is much easier to use and interpret than the EQ-5D

16. Which pharmacoeconomic method is most often used for the evaluation of medication?

- a) cost-minimization analysis
- b) cost-effectiveness analysis
- c) cost-consequences analysis
- d) cost-benefit analysis

17. Which of the following is one of the major limitations of a cost-effectiveness analysis?

- a) only one outcome can be considered
- b) utility assessment is difficult to make
- c) therapeutic equivalence of health interventions occurs infrequently
- d) places the burden of aggregating components of the analysis on the decision makers

18. The incremental cost-effectiveness ratio (ICER) corresponds to the ratio of:

- a) the difference in cost to the difference in effectiveness
- b) the difference in effectiveness to the difference in cost
- c) the cost of an intervention to its effectiveness
- d) the effectiveness of an intervention to its cost

19. If treatment A is more effective and more costly than treatment B, the decision should be to:

- a) select treatment A
- b) select treatment B
- c) indifferently select either treatment A or B
- d) calculate an incremental cost-effectiveness ratio (ICER) comparing treatment A to treatment B

20. Treatment A costs \$40,000 and provides 10 years of survival and treatment B cost \$60,000 and provides 15 years of survival. What is the incremental cost-effectiveness ratio (ICER) of B compared to A?

- a) \$1,500
- b) \$4,000
- c) \$7,000
- d) \$35,000

- 21. Intervention A will be preferred over intervention B in all of the following situations EXCEPT when intervention A gives:**
- a) less QALYs and is more costly
 - b) more QALYs and is more costly, and the added QALYs are worth the added cost
 - c) more QALYs and is less costly
 - d) less QALYs and is less costly, but the added QALYs of intervention B are not worth the added cost
- 22. Treatment A provides 6 QALYs and costs \$30,000 while treatment B costs \$40,000 and gives 8 QALYs. What is the incremental cost per QALY ratio comparing B to A?**
- a) \$2,000
 - b) \$3,500
 - c) \$5,000
 - d) \$15,000
- 23. Which of the following statement is true?**
- a) with the cost-utility analysis, many interventions can be compared with one another
 - b) utility is relatively easy to assess
 - c) when a treatment provides more QALYs and is less costly, an incremental cost per QALY ratio should be calculated
 - d) in a cost-utility analysis, quality of life of interventions are compared
- 24. In cost-benefit analysis, the outcomes measure is expressed in:**
- a) natural units
 - b) quality adjusted life-years
 - c) years of life gained
 - d) dollars
- 25. All of the following statements regarding pharmacoeconomic methods are true EXCEPT:**
- a) result of cost-effectiveness analysis is expressed as a ratio
 - b) result of cost-utility analysis is expressed as a ratio
 - c) result of cost-minimization analysis is expressed as a ratio
 - d) result of cost-benefit analysis is expressed as a net benefit

26. A measure of preference or desirability for a particular health outcome or health state corresponds to:

- a) uncertainty
- b) utility
- c) quality of life
- d) effectiveness

27. All of the following statements regarding discounting are true EXCEPT:

- a) every cost and outcome that occurs beyond one year should be discounted
- b) different discounting rates can be used in sensitivity analyses
- c) in a sensitivity analysis, a rate of 5% can be used to show the impact of discounting
- d) discounting takes into account the preference for receiving something of value today instead of in the future

28. All of the following statements regarding perspective are true EXCEPT:

- a) pharmacoeconomic analyses may be conducted from different perspectives
- b) changing the perspective of the study may alter the conclusion
- c) the perspective used impacts which costs will be considered in the analysis
- d) usually, cost-utility analyses are performed from different perspectives than cost-effectiveness analyses

29. Which of the following statements on the transferability of pharmacoeconomic data across regions is true?

- a) transferability issues can be resolved by replacing foreign cost of a given resource by its Canadian cost
- b) resources used in Canada can be different than the resources used in another country and the type of care dispensation can be different
- c) transferability issues are mainly associated with outcomes
- d) with the current context of globalization, results from foreign pharmacoeconomic studies can be regarded with less precautions

30. Pharmaceutical sales representatives can service their clients effectively by helping them to:

- a) understand pharmacoeconomic terminology
- b) understand the practical application of pharmacoeconomics to each client's work
- c) appreciate the variety of pharmacoeconomic methods
- d) all of the above

**ANSWER KEY FOR PREPARATION EXAM
PHARMACOECONOMICS
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<i>Question</i>	<i>Correct answer</i>	<i>Location</i>
1.	A	1.1-2
2.	C	1.1-6
3.	A	1.1-6
4.	B	1.1-7
5.	B	1.1-8
6.	B	1.1-7
7.	A	2.1-2
8.	C	2.1-5
9.	D	2.1-6
10.	C	2.1-7
11.	B	3.1-1
12.	A	3.1-3
13.	B	3.1-3
14.	D	3.1-5
15.	D	3.1-7

<i>Question</i>	<i>Correct answer</i>	<i>Location</i>
16.	B	4.1-4
17.	A	4.1-8
18.	A	4.1-6
19.	D	4.1-6
20.	B	4.1-6
21.	A	4.1-9
22.	C	4.1-9
23.	A	4.1-10
24.	D	4.1-11
25.	C	4.1-13
26.	B	3.1-3
27.	C	5.1-3
28.	D	4.1-8
29.	B	5.1-4
30.	D	7.1-4