Interactive Questions

Question 1:

This unit of cost-effectiveness is defined as: (cost of intervention X – cost of comparison intervention Y) / (effect of intervention X – effect of comparison intervention Y). ?

- Cost-benefit ratio
- Quality-adjusted life-year
- Incremental cost-effectiveness ratio

Explanation:

The incremental cost-effectiveness ratio (ICER) is the additional cost of implementing one intervention versus the comparison (such as a control treatment, or the current standard of care), divided by the additional clinical benefit gained from that intervention versus the comparison.

- Average cost-effectiveness

Question 2:

What type of analysis is performed to simulate real-world uncertainty in the parameters of the cost-effectiveness analysis and test assumptions under varying conditions? ?

- Cost-benefit analysis
- Sensitivity analysis

Explanation:

Sensitivity analysis is used to determine the effect that changes in different variables will have on the conclusions drawn from the cost-effectiveness analysis.

- Comparative effectiveness analysis
Question 3:

Which type of model can be useful in cost-effectiveness analysis for simulating the complex course of chronic disease, or conditions in which there is transition back and forth among disease states? ?

- Decision tree analysis
- Logistic regression model
- Cox proportional hazards model
- Markov model

Explanation:

The Markov model is particularly well suited for modeling dynamic processes, such as a chronic disease characterized by multiple relapses, remissions, and transitions among various states of active disease and resolution. Decision tree analysis is better suited to modeling more simplified clinical pathways in cost-effectiveness analyses.

Question 4:

Which of the following is a commonly used threshold for valuing a single quality adjusted life year (QALY) in cost-effectiveness analysis? ?

- $500/QALY
- $5,000/QALY
- $50,000/QALY

Explanation:

Though an area of active discussion in health economics research, a commonly used threshold for valuing a quality adjusted life year is $50,000.
$500,000/QALY

Question 5:

Which of the following costs should be factored in as part of a cost-effectiveness analysis for a newly developed pharmaceutical treatment?

- Retail price of the drug
- Physician time necessary to administer the drug to patients
- Patient time out of work to recover from side effects of the drug
- all of the above

Explanation:

In performing a cost effectiveness analysis, cost calculations should include not only the price of administering an intervention, but also costs associated with facility and staff resources, intervention side effects, and indirect costs of patient suffering and lost productivity.