Foundations of Economic Evaluation in Health Care

OR

Advanced Methods for Cost-Effectiveness Analysis: Meeting Decision Makers' Requirements

WHICH WORKSHOP IS BEST FOR ME?

This self-assessment questionnaire contains questions to test your basic knowledge of the methods of economic evaluation and to help you decide which of our two workshops above is probably most appropriate for you.

If you do not know the answers to each of the following 10 questions, then you should not proceed to the Advanced Workshop without either:

- following a foundations workshop (e.g. Foundations of Economic Evaluation in Health Care); or

- studying a basic text (e.g. Drummond *et al*, Methods for the Economic Evaluation of Health Care Programmes, Oxford University Press, 2015: http://bit.ly/MethodsBookOUP).

QUESTIONS:

1. What is the name of the form of economic evaluation where all the costs and benefits are expressed in monetary units?

2. Name 3 methods for obtaining health state preference values (or 'utilities').

3. How is an incremental cost-effectiveness ratio calculated?

4. Discounting costs and benefits occurring in the future is likely to make prevention programmes: (a) less attractive; (b) more attractive?

5. If a treatment increases a patient's quality of life, measured in utility terms, from 0.7 to 0.9 for a 5 year period, how many quality-adjusted life-years (QALYs) would be gained?
   (Assume no discounting.)

6. How would you calculate the productivity losses (due to a person being off work due to sickness) according to the 'human capital' method?

7. Name 3 weaknesses/problems in collecting resource use data alongside clinical trials.

8. Name 3 factors, varying from place to place, that are likely to limit the generalisability of cost-effectiveness estimates from one setting to another.

9. Summarise the characteristics of a decision tree and a Markov model.

10. Why, in an economic evaluation, would you conduct a sensitivity analysis?

ANSWERS:

1. Cost-benefit analysis.

2. Any of the following: visual analogue scale (or rating scale); time trade-off; standard gamble; person trade-off.

3. The additional cost of an intervention (relative to a comparator) divided by the additional effects of an intervention (relative to a comparator).

4. (a) Less attractive.

5. 1.0 QALYs (i.e. 0.2*0.5).

6. Multiply the time off work by the person's gross wage (i.e. full salary plus benefits).

7. Any of the following: trials are undertaken under conditions that differ from regular practice; they are often of short duration; they may compare the drug with an inappropriate alternative such as a placebo; patients are often not followed up if they discontinue study medication; trials may be conducted in multiple sites with different cost structures.

8. Any of the following: demography and epidemiology of disease; relative price levels; clinical practice patterns; availability of healthcare resources; preferences for health states.

9. A decision tree characterises a patient's prognosis in terms of a series of branches stemming from decision nodes (e.g. showing choice of treatment) and chance nodes (e.g. uncertainty about an event). Pathways represent alternative journeys through the tree. Each pathway has a cost and outcome and the tree is evaluated by weighting the costs and outcomes of each pathway by its probability and summing across pathways to calculate the expected cost and outcomes of each intervention. A Markov model is similar but, instead of pathways, the time patients spend in particular health states is the basis of the structure.

10. To explore the impact of uncertainty on the study results, most often parameter uncertainty, but could include uncertainties in methods, or differences across locations.