14

Health Technology Assessment

Comprehension Questions

Indicate whether the statement is true or false, and justify your answer. Be sure to state any additional assumptions you may need.

1. A dominated treatment is one that is less cost effective than another treatment (even though it may produce better medical outcomes).

   FALSE. A dominated treatment is one that is both more expensive *and* less effective than some other treatment. It is never optimal to use a dominated treatment, because there is always a more effective and cheaper alternative available.

2. Both ICERs and ACERs compare two drugs on the basis of both cost and medical efficacy.

   FALSE. An ICER (incremental cost effectiveness ratio) is used to compare two treatments, but an ACER (average cost effectiveness ratio) only makes sense in the context of a single treatment compared against a lack of treatment.

3. If a medical screening technique is perfect at detecting a disease before it develops and is able to prevent the disease from occurring, it must be cost effective.

   FALSE. The answer depends on how expensive the screening technique is. If the technique is more expensive than treating the disease in question, it is obviously not cost effective to screen.

4. An ICER value indicates which of two treatment options is better.

    FALSE. The ICER by itself does not indicate which treatment is optimal; it simply indicates exactly how expensive a health improvement is in monetary terms. An ICER is a positive fact about costs and benefits of two different treatments, not a normative judgment about whether a better treatment is worth the extra cost.

5. The cost effectiveness frontier (CEF) shows the subset of treatment strategies which are not dominated by any other treatment.

    TRUE. The CEF shows a subset of treatment strategies for a condition that are not dominated by any other treatment. Any treatment on the CEF is said to be potentially cost effective.

6. The results of any CEA analysis depend on the perspective taken, but analyses from the perspectives of the patient and a social planner will never differ.

    FALSE. CEAs from the patient and the social planner might diverge if there is moral hazard induced by insurance coverage, or if a treatment has a positive or negative externality.

7. There are several survey methods that health services researchers use to measure quality of life under different diseases.

    TRUE. Three key estimation measures are the VAS scale, standard gamble, and time trade-off.

8. Medical experts are ideal candidates for providing estimates of the quality weights associated with various health states.

    FALSE. Using medical experts to provide such estimates is appealing because the experts have taken care of many patients with the given disorder and observed their quality of life. But this method is prone to weigh the concerns of doctors over the concerns of patients. For instance, patient comfort may be overlooked in so-called "Delphic" estimates of quality weights.

9. Cost-benefit analysis (CBA) allows us to pick an optimal treatment from the list of potentially cost effective treatments.

    TRUE. Cost-benefit analysis (CBA) is the process of choosing an optimal treatment among the potentially cost effective ones, given a certain monetary value for each unit of health gained.

10. The value of statistical life (VSL) is a measure of how much money someone would be willing to accept in exchange for dying.

    FALSE. VSL is derived from measurements of how much people seem to value small changes in mortality risk. It is thus a measure of how people value small changes in their risk of death and not how people value certain death.

11. Studies of labor market choices and product purchase decisions infer VSL from tradeoffs between money and risk.

    TRUE. By finding the amount of money necessary to compensate people for accepting higher risk, or the amount of money people are willing to pay to reduce risk, researchers can uncover how much individuals value small changes in the risk of dying.

12. Empirically, VSL estimates vary widely by country, income, age, and gender.

    TRUE. There is tremendous variation by country, income, age, and gender. Richer people, younger people, and women tend to have higher estimated VSL.

13. Cost-benefit analysis is used to determine which medicines and treatments U.S. Medicare will cover.

    FALSE. It is illegal for U.S. Medicare to use cost-benefit analysis in its decision-making.