E6. What I should know about the costs of my favourite breast cancer treatment – and why

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The gap between possibilities and resources

Doctors have different attitudes to health economics. Some say that the attendant physician should never worry about costs, since they are always 'the patient's advocate' and that they should always recommend the best and most effective treatment despite the cost. Conversely, other doctors are concerned about costs, since they are considering not just one patient, but regard all their patients as a group where as many as possible should have the best treatment given the resources. Both standpoints involve ethical considerations. The first takes a clear and undivided position to support the patients' needs. However, this attitude tends to limit problem-solving to one consultation at a time. The other standpoint can be seen as possibly disadvantageous to some patients, but takes into consideration equal opportunities to obtain good care within a population. It is noteworthy that the ethical perspective is also somewhat different depending on how healthcare is financed. Do the patients pay with their own money or is the care to a large extent financed by taxes?

Current scientific and societal developments tend to drive us towards considering many patients at a time. It is becoming increasingly evident in cancer therapy that the possibilities of intervening to the benefit of patients are increasing more rapidly than are the resources available to implement all new interventions. This increasing gap presses us to make prioritisations in which costs and resource utilisation are at the core of the matter.

Cost minimisation

The first thing to determine about my favourite breast cancer treatment is its medical main effects. If we choose between two treatments with very similar main effects (concerning both positive effects and negative side-effects) the situation is rather simple – at least theoretically – and we could undertake a cost-minimisation study [1,2]. This is straightforward if a new treatment policy involves merely changing from drug A to drug B. However, comparisons are often more complex, since a shift in therapeutic policy may involve different resources of monitoring, administration routes of drugs, need for support, etc., and a cost-minimisation study may not always show what would seem evident just by looking at the price of a drug. A recent review of adjuvant chemotherapy for treatment of node-positive breast cancer [3] shows clearly that cost cannot be calculated only by looking at the price of the drug, even if in this example the cheapest drug purchase was also overall the least costly treatment. Well-done cost-minimisation studies are probably under-utilised when it comes to saving resources.

Cost–effectiveness and cost–utility

If the main effects are different, treatments can be compared in cost per units of some benefit, e.g. years of life saved and serious complications avoided – a cost–effectiveness study [1,2]. Thus, treatments may compare both in terms of increased effectiveness (i.e. the effects of a treatment in real-world conditions) and lower toxicity. If the main effects differ, we would also need to know something about development over time. Benefits seen at the start of a treatment may be wiped out later, side-effects not evident from the start can become troublesome in the long run, and the cost-effectiveness of a treatment may therefore look quite different at, for example, 3 years and 10 years of follow-up. This is parallel to the fact that the number needed to treat often changes depending on follow-up time. Since we sometimes see that a more effective treatment also is more toxic, it is common to adjust gain in years of life for negative effects on quality of life – cost–utility studies [1,2]. Thus, I also need to know how my favourite breast cancer treatment affects quality of life. However, it is not always the case that we introduce more toxicity with more anti-tumour activity – the type of toxicity may differ with regimen and be valued differently by different patients.

It is sometimes argued that a more effective treatment will save money by diminishing costs for treatment of recurrences; however, to achieve this we would have to see very effective treatments that require rather low initial investment. Usually, more effective treatment will also be associated with increased cost. The final valuation of costs per unit of benefit may seem different if the new treatment renders a small effect for many patients or a

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large effect for a few. However, it is arguable whether and how this should influence decision-making.

Other changes in management

As mentioned above, to evaluate costs one also needs to know whether changes in the patient management protocol are a prerequisite for the new treatment. A new treatment may require new, and perhaps expensive, diagnostics or diagnostic screening tools in many patients to check for responsiveness (e.g. trastuzumab and HER2/neu), more careful monitoring, extra follow-up, more supportive treatment, antibiotic prophylaxis, treatment for long-term side-effects, etc. One also needs to know whether the treatment is followed by widening indications with more interventions in previously untreated groups – a step that can increase costs considerably. Some changes in management may also modify the main effects. If, for example, the age distribution of those offered the new treatment changes, for many treatments age modifies both main positive and negative side-effects. The 'downstream' changes in management following a shift in therapy tradition are both difficult to monitor and are probably underestimated as contributing to costs [3].

Alternative use of resources

Discussions about costs ultimately return to prioritisation. It is rather meaningless to examine the costs of one or a few treatments when we actually want to discuss alternative and ethical use of resources in a broader perspective. Such a discussion requires that one's favourite breast cancer treatment can, in the long run, be compared with costs and effects of other types of cancer treatment and perhaps even with other measures (medical or otherwise) to prevent suffering and death – i.e. studied in cost–benefit analyses [1,2]. It is interesting to note that current evaluations in public health – at least in northern Europe – are beginning increasingly to look at acceptable levels of costs from a societal view. There appears to be a level of €40–60 000 per quality-adjusted life year (QALY) that is still acceptable in a tax-financed system (cf. UK National Institute of Clinical Excellence; www.nice.org.uk).

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References

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