Economic evaluation and EBM

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Abstract
In the world of textbook economics, the “sovereign” consumer weighs up the (freely available) evidence on the costs, risks, harms and benefits before purchasing health care. The value that consumers then attach to the evidence and the expected outcomes is revealed through their purchasing decisions in the market. Ultimately, the consumer’s decision represents the best or benefit maximising choice given the available information. The notion of this evidence-based market is however a long way from the reality of health care in Australia. Consumers (that is, patients) generally do not have current best evidence to hand. The same could be said of their agent (doctor) prior to worldwide interest in evidence-based medicine (especially through the Cochrane Collaboration). If the market is not capable of integrating external clinical evidence from systematic research and clinical expertise such that consumers (or their agents for that matter) can assess the quality of information easily then a mechanism is needed to perform that function. One such mechanism is economic evaluation. This approach describes a set of techniques, such as cost-effectiveness analysis and cost-benefit analysis, that require the systematic comparison of the costs and benefits of the full range of health care activities. Economic evaluation performs what individual consumers would otherwise do in a competitive market; it weighs up the costs and benefits of the available choices. That still leaves many questions about whose values count in the aggregation of costs and benefits and whether the value of the total is greater than the sum of individual values. Nonetheless, if one of the aims of a health care system is to be efficient, then choosing those programs that provide the greatest benefits for the resources available will delivery an efficient allocation of health care resources. Allocating health care resources is seldom simply a matter of choosing efficient programs; the ‘fairness’ or equity of resource allocation is also a desirable economic goal. The aim of this paper is to provide a brief account of what economic evaluation has achieved and could achieve in cancer control within an EBM environment. The first part looks at funding lor health services based on evidence of economic evaluation. The following section of the paper highlights some innovative research into the use of EBM to elicit consumer preferences for colorectal cancer screening.

Keywords
ebm, economic, evaluation

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ECONOMIC EVALUATION AND EBM

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Introduction

In the world of textbook economics, the "sovereign" consumer weighs up the costs and benefits before purchasing health care. The reality is that the value that one places on the expected outcomes is revealed through their purchasing decisions in the market. Ultimately, the consumer's decision represents the best or closest choice achievable given the available information. The notion of this evidence-based market is however only as strong as the evidence available. In Australia, Consumers (that is, patients) generally do not have current best evidence to hand. The same could be said of their agent, health care providers, as they are not always privy to all the latest developments in clinical medicine (especially through the Cochrane Collaboration). If the market is not capable of integrating external clinical evidence from systematic reviews, the quality of evidence available to consumers (or their agents for that matter) can assess the quality of information easily then a mechanism is needed to perform that function. One such mechanism is economic evaluation.

This approach describes a set of techniques, such as cost-effectiveness analysis and cost-benefit analysis, that require the systematic collection of data and the quantification of the full range of health care activities. Economic evaluation performs what individual consumers would otherwise do in a competitive market: compare the costs of buying different brands of the available choices. That still leaves many questions about whose costs are the one in the aggregation of costs and benefits and whether the result is the same as the sum of individual values. Nonetheless, if one of the aims of a health care system is to be efficient, then choosing those programs that provide the greatest benefits for the resources available will deliver an efficient allocation of health care resources. Allocating resources is a matter of choosing efficient programs; the "fairness" or equity of resource allocation is also a desirable economic goal.

The aim of this paper is to provide a brief account of what economic evaluation can achieve in the context of cancer control within an EBM environment. The first part looks at funding for health services based on evidence of economic evaluation. The following section of the paper highlights some innovative research into the use of EBM to elicit consumer preferences in cancer screening.

Funding for Success

If EBM focuses on the use of "current best evidence in making decisions about the care of individual patients" then economic evaluation tends to focus on the use of current best evidence before the care of individual patients. Such economic evaluation is relevant to the care of individual patients but that is where it has been most successful. Success has come more recently with screening and treatment programs. For example, in 1987 the National Health Act, 1953, was amended to require the Pharmaceutical Benefits Advisory Council (PBAC) to take account of comparative effectiveness and cost in recommending drugs as pharmaceutical benefits. However, the legislation did not extend to the funding of health care services. The PBAC and the Commonwealth Department of Health and Ageing develop an Evidence-Based Guidelines and Advisory Committee (EBGAC) to provide the evidence for the PBAC. This system is under review. This system is under review.

In this example, the respondent has been told that the government is going to introduce a new cancer program that is expected to save 9,000 men and 50,000 women aged 50-69 years as a falsable occult blood test.

blood test every second year for 10 years. In Figure 1, the subject is being asked to trade off the chance of a false positive death (due to a long biopsy) against the chance of a cancer death. The subject has been given a line description of what is involved in the screening process and in having a colposcopy. By altering the level of harm, the balance of benefits in subsequent choice questions, a point is reached where the respondent is indifferent to a combination of harms and benefits. The process of tracking involves viewing a series of questions presented in each of the scenarios. The information contained in each of the scenarios is based on the mean value and 95% confidence limits for the harms and benefits of screening cruel CRC screening. In this way, individuals are being asked to weigh up the best available external evidence on screening. The next stage of the project will introduce cost as a variable in the question.

Conclusion

The application of economic evaluation within a clinical/ EBM framework provides a successful and efficacious tool for making decisions about the care of patients. Economic evaluation is required to ensure that the best evidence is available to clinicians making decisions about the care of individual patients or on people being offered cancer screening. Cancer screening is less than impressive. New approaches such as discrete choice modelling are needed to help individuals to make cost, risk, harm and benefits of screening or treatment options so that the consumer can make the best (evidence-based) choice.

References