EVALUATING THE WORTH OF GENETIC COUNSELLING IN TERMS OF ECONOMICAL VALUE

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ABSTRACT

In the medical field, genetic testing can aid with disease prediction, diagnosis, prognosis, and treatment. Assessing the therapeutic utility of genetic testing necessitates a method for weighing and valuing various results. Gene sequencing's speed and cost, as well as enhanced genomic data analytics, have aided in the development of deep biomedical insights and breakthroughs, which are being integrated with advances in biopharmaceuticals, diagnostics, and other medical technologies that use genomic data. The utility of genomics and widespread use of sequencing has clearly reached a tipping point, where they are clearly beneficial for significantly improving human health outcomes. The functional application of human genetics and genomics to clinical healthcare is now a daily reality in some medical fields and is becoming increasingly front-and-center in neurological, psychiatric, gastrointestinal, immunologic, rheumatologic, dermatologic, pain management, and other clinical medicine application areas, as this report highlights. It's also critical to progress in the diagnosis and treatment of a wide range of rare diseases and disorders, helping to put an end to the diagnostic odysseys of millions of patients with uncommon diseases that are difficult to diagnose and underserved in terms of therapeutic options.

Keywords: Genetic Counselling, Economic, Value, Health Care.

INTRODUCTION

The utilisation of genetic data in health care has clinical as well as economic ramifications. Various stakeholders, such as health-care decision-makers, practising clinicians, and patients and their families, may find genetic information beneficial. Genetic testing is a complex intervention that can be used to predict the risk of developing a condition, facilitate more rapid and accurate diagnoses of genetic conditions, and potentially prevent disease, prolong life, and promote health by leading to earlier or more precise interventions. Even if the results of a genetic test do not impact clinical management or have a measurable influence on health, genetic knowledge can improve individual and family decision-making (Burke et al., 2002).

However, genetic testing can lead to invasive and costly follow-up testing or the implementation of management strategies with unknown benefits, as well as negative psychosocial effects like fear of discrimination and complacency as a result of negative test results, which may encourage unhealthy behaviours. Genetic-based technologies have the potential to provide information to help guide clinical decision-making, but they will have an impact on how health-care resources are used. Assessing the therapeutic utility of genetic testing necessitates a method for weighing and valuing various results. In this article, outcomes are defined as the impacts of a health-care service or interventions, including both health outcomes such as disease or quality of life and non-health outcomes such as test-results wait time or the sort of care provided (Payne et al., 2008).

Robust evidence on the economic impact of genetic tests could be viewed as a precondition for making well-informed decisions. In order to inform health policy decisions,

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economic evaluation methods that value multiple outcomes are critical. Cost-effectiveness analyses are a type of economic evaluation that focuses on outcome measures such as the number of cases of disease detected or deaths avoided (CEAs). *"Not everything that counts can be counted,"* Albert Einstein famously observed (Grosse & Khoury, 2006).

Human genetics and genomics are having profound positive impacts not only in terms of biomedical discovery, but also in terms of clinical medicine, helping to improve the lives of millions of patients and demonstrating great promise for future highly positive contributions to human health and well-being around the world. Following testing, genetic counselling can assist you in better understanding your test results and treatment options, as well as direct you to additional healthcare specialists and advocacy and support groups. Clarifying the economic implications of genetic testing adds to the knowledge available to decision-makers with limited resources. Costs and the clinical effectiveness of medical therapies are considerations evaluated in funding decisions in a context with limited health care resources (Hambly & Kolb, 2016).

Determine the risks associated with shared genes. Learn more about the lifestyle and environmental characteristics that you and your family share. Learn how making healthy lifestyle choices can lower your risk of contracting an illness. Discuss your health with your family. The biggest benefit is that early detection may avert more severe types of sickness or the birth of a sick child in a couple. The biggest downside is that if an individual was not previously aware of an elevated risk of getting a condition with no cure, it may cause psychological stress. A positive outcome can point a person in the direction of available prevention, monitoring, and treatment options. Some test results can also aid in the decision-making process when it comes to having children. Genetic diseases can be identified early in life through new-born screening, allowing therapy to begin as soon as feasible. Depending on the nature and complexity of the test, the cost of genetic testing can range from under $100 to more than $2,000. If more than one test is required or if numerous family members must be tested in order to produce a significant result, the expense rises. The cost of newborn screening varies by state (Col, 2003).

CONCLUSION

The vast majority of economic evaluations of health-care treatments, including genetic tests other than prenatal testing, have been CEAs from the standpoint of the health-care system. These are valuable for allocating health-care resources, but they are insufficient for maximising wellbeing across both health and non-health outcomes. However, there are still a few roadblocks in the way of general adoption. While these obstacles can be overcome, the rate at which genomic technologies are integrated into healthcare systems will be determined by the decisions made by the public, policymakers, payers, physicians, scientists, and genetic counsellors, among others. These stakeholders and decision-makers have an urgent and growing need to facilitate timely and fair access.

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