

OP68 Value-Engineered Translation: An Example for Bladder Cancer Diagnosis

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Introduction. The Institute of Health Economics offers a suite of analyses that provide developers an understanding of the expected commercial viability of an early stage health technology. In combination, these analyses form the Value-Engineered Translation framework. These methods incorporate innovative methods to manage uncertainty in early economic evaluations, in particular, moving beyond current stochastic assessments of headroom to account for inter-market variability in value hurdles, as well as incorporating social value premia considerations. An illustration of these methods is demonstrated using the example of a non-invasive diagnostic test (called DCRSHP) at an early stage of development, compared to current practice of cystoscopy in the diagnosis of bladder cancer.

Methods. Competing technologies were identified to inform the headroom assessment based on price and effectiveness. Then, a model-based cost-effectiveness analysis was undertaken incorporating headroom analysis, stochastic one-way sensitivity analysis, and value of information analysis using data from secondary sources.

Results. Currently there are a number of non-invasive tests available, but none have sufficient test accuracy to be suitable for bladder cancer diagnosis alone. From the headroom analysis, DCRSHP can be priced at up to CAD 790 (i.e. USD 588) and still be cost-effective compared to the current practice of cystoscopy. Interestingly this price can be increased for patient groups that have lower levels of bladder cancer prevalence.

Conclusions. The requirements of economic evaluations depend on the stage of technology development, and analysis approaches must reflect this. The results here indicate that DCRSHP clears the value hurdle in terms of being cost-effective, and thus provides the opportunity to make a commercial return on future investment. Future analysis of DCRSHP could consider the cost drivers for development of the technology, including the regulatory pathways, costs associated with the intellectual asset management for the technology, and alternative manufacturing costs. All of which contribute to the research-to-practice continuum.

OP69 Initiatives To Improve The Timeliness Of Cancer Diagnosis

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Introduction. Conventional wisdom suggests that accelerating the speed of cancer diagnosis should improve health outcomes. However, cancer diagnosis requires complex coordination and effective communication between care providers working across many areas of the healthcare system. Since 2000, several nations

and jurisdictions have aimed to improve timeliness of cancer diagnosis by integrating and coordinating cancer diagnostic services for patients. The objective of this study was to describe the impact of these existing initiatives.

Methods. We conducted an environmental scan consisting of a literature review (published academic and grey literature) and key informant consultations (online surveys and telephone interviews with experts who have knowledge of existing initiatives). We searched for initiatives in the United Kingdom, the Nordic countries, Canada, Australia, and New Zealand. For each initiative, we extracted data on their development and implementation, structure and functioning, intended outcomes and effectiveness, costs and cost savings, and enablers and barriers.

Results. Eighty-nine relevant documents and 20 key informants contributed to this study. We identified 21 relevant initiatives, including seven national initiatives targeting multiple types of cancer. The literature review found that most initiatives accelerated the diagnostic phase of cancer care by several days or weeks. These wait time reductions were often associated with improved patient experience, but not less advanced cancer stage or increased long-term survival. Insights from key informants improved our understanding of the costs, enablers, and barriers associated with program implementation and maintenance.

Conclusions. These results can be used as a first step to inform the development, evaluation, and improvement of international cancer diagnostic pathways. Stakeholders wishing to accelerate cancer diagnosis should consider the feasibility of achieving their intended program outcomes based on the existing research evidence, desired type of initiative, and jurisdiction's unique contextual factors.

OP71 Understanding Hospitals' Performance Variability: Conceptual Framework

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Introduction. Understanding of the role of contextual factors in determining the real value of health technologies is one of the major challenges for the use of Health Technology Assessment (HTA) methodology within hospitals. Moreover, the responsibility of assessing hospital performance is problematic. Although a number of managerial tools are available to appraise outcomes, there is little evidence on the role of contextual variables and how they might contribute to hospital performance.

Methods. Based on three extensive literature reviews, a pragmatic framework has been developed to understand interactions between organizational factors and health technologies on hospitals' performance. Three main causal relationships emerge: (i) direct relationship between contextual factors and performance; (ii) an effect of contextual factors on the capability of technologies

to “produce value”; (iii) an influence of organizational factors on clinical evidence-based decision-making. This pragmatic framework was designed within the IMPACT HTA EU Horizon 2020 Research Project.

Results. The contextual dimensions are ascribable to five domains: organizational structure; managerial accounting tools; information, communication and technology (ICT) tools; human resource management (HRM) tools; hospital-based HTA procedures. The impact of contextual factors on technologies’ ability to produce value is highly overlooked in literature. Some effort in this sense exists only in the analysis of health information technologies. Moreover, among the contextual dimensions, only HRM tools have inspired a lively debate. The definition of hospital performance is amenable to multiple domains: accessibility, appropriateness, efficiency, safety and patient centeredness (continuity of care).

Conclusions. Although hospital performance is a pivotal topic in the healthcare sector, a deep understanding of how contextual factors may affect it is missing. The theoretical framework developed provides a tool to understand the multiple dimensions able to affect hospital performance. On one hand contextual dimensions may provide a direct effect on hospital performance. On the other, they may affect the extent to which technologies are capable of producing value.

OP72 HTA Beyond 2020 In China : HB-HTA Rising Up In Tertiary Hospitals

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Introduction. Health technology assessment (HTA) was introduced into China more than 20 years ago and has developed rapidly recently. While only recently has the concept of hospital-based health technology assessment (HB-HTA) attracted attention in China. The purpose of this study is to investigate the views of government officials, decision makers and relevant stakeholders in the management and application of medical technologies in hospitals, within the environment of Health System Reform in China. We analysed the current situation and identified obstacles and prospects of HB-HTA in Chinese tertiary hospitals.

Methods. We conducted semi-structured interviews in 8 provinces in Eastern, Central and Western China; in 2 to 4 tertiary public hospitals in each province. We interviewed doctors, nurses, and Chiefs in hospitals, and key informants in the National Center for Medical Service Administration.

Results. A total of 98 people participated in the panel discussions and interviews. We found that:

1. China’s tertiary public hospitals have embraced HB-HTA, and various hospitals have performed different forms of HB-HTA (including ambassador model, Mini-HTA model, and internal committee model). However, the assessment process, standards, and methods are yet to be standardized.
2. The promotion of HB-HTA in China’s tertiary public hospitals has remarkable external incentives and internal advantages.
3. The lack of HB-HTA professionals, improvements in cognition level, and evidence-based decision-making models and

management culture hinders the development of HB-HTA in China.

Conclusions. HB-HTA is in high demand in China, especially in tertiary hospitals. It will continue to develop rapidly over the next decade along with the development of China’s HTA. HB-HTA will complement the national HTA to jointly extend the Chinese HTA system.

OP74 Stoma Cover Use By Fully Laryngectomized Patients

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Introduction. The use of stoma covers has been a common clinical practice for laryngectomized patients for several years. In the province of Québec, Canada, laryngectomized patients can obtain stoma covers through a dedicated program providing them with medical supplies and voice re-education services. For many years, the program’s supply has included cloth and/or foam covers, but the supply of Heat and Moisture Exchangers (HME) has been limited. Two hospital-based HTA units joined their expertise to assess the opportunity of providing HMEs to more patients, depending on their clinical characteristics.

Methods. Their joined assessment rested on a systematic review (SR) and a field assessment. The systematic review aimed at assessing the efficacy, clinical effectiveness and safety of various types of stoma covers. The field inquiries intended to assess the perceptions of clinicians and managers towards stoma covers in clinical practice.

Results. We included 27 studies in the SR. Most of them appraised the clinical effectiveness or safety of HME filters. Their methodological quality was very low with potential conflicts of interest whereas many studies were financed by the industry. The heterogeneity of study designs, expected outcomes and paucity of comparative studies prevented the pooling of results. Industry sponsorship appeared to be an important issue, since 17 of the included studies were sponsored. The SR did not provide conclusive evidence concerning the efficacy, clinical effectiveness and safety of the various types of stoma covers. The field inquiries intended to assess the perceptions of clinicians and managers towards stoma covers in clinical practice. It showed that industry representatives are quite active in clinical settings, promoting their products. Clinicians’ opinions and preferences were coherent with the systematic review main observations: in a context where the quality of the evidence is low, clinicians’ recommendations of stoma protectors for laryngectomies are mainly based on their professional experience and academic training.

Conclusions. Future research of high methodological quality would strengthen the evidence concerning the relative efficacy and safety of different stoma protectors. These studies would help define evidence-based allocation criteria and set parameters so that the choice of a stoma protector is best adapted to a laryngectomized patients’ condition.