

## 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