librarians and other information specialists when they are asked to evaluate electronic search strategies. CADTH and PRESS authors were approached for permission to translate this checklist into various languages.
Methods: The team from Fundação Oswaldo Cruz and the Universidade Federal do Rio de Janeiro asked CADTH for permission to translate the PRESS guideline and checklist for their research work. They translated PRESS following the steps advocated by the scientific literature on the translation of standardized questionnaires.
Results: CADTH is now sharing and actively disseminating the PRESS translations in French and Portuguese (and a forthcoming version in Spanish) via the Finding the Evidence website and through related presentation activities.
Conclusions: The coordinated translation of key health technology assessment (HTA) tools provides an avenue for international uptake and improvement of best practice in information retrieval, which is a foundational feature of HTA work. With the absence of formal translation guidelines on the translation of protocols such as PRESS, CADTH would benefit from developing guidance for HTA teams requesting to translate our tools. CADTH is currently conducting research on the uptake and use of PRESS, which will inform future knowledge mobilization strategies such as translation standards and communications.

OP173 Estimating The Marginal Productivity Of Health Technology Adoption

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Introduction: Decisions to adopt health technologies rely, in part, on judgements about cost effectiveness. Cost effectiveness is commonly assessed against a willingness-to-pay threshold for health gains. Building an evidence base on the marginal productivity of health spending to inform the value of the threshold is increasingly of interest for resource allocation decision-making and technology implementation. We report on an in-progress analysis to inform a threshold for policy purposes in British Columbia, Canada.
Methods: We developed a ten-year panel-data model with instrumental variables, which lessens the degree of time-invariant confounding and addresses biased causal inferences caused by unobserved factors, to provide estimates of the marginal cost per health unit measured using quality-adjusted life-years (QALYs). We use the Johns Hopkins Adjusted Clinical Group (ACG) system and a British Columbia Health System Matrix to classify patients into six resource use bands (RUBs) ranging from 'healthy' to 'very high morbidity'. Patients are also classified by chronic conditions and types of services. Place of residence and geographical region of health authorities are considered. Variables included age, gender, mortality and comorbidity rates, costs of hospitalizations, emergency department and physician visits, residential and home care, laboratory services, diagnosis and medications, and quality of life. Instrumental variables included sociodemographic characteristics as reported in the Canadian census.
Results: The largest RUB was 'moderate' morbidity (39.3%), while the smallest was 'healthy' (1.5%). The youngest was the 'low' morbidity (mean 31, standard deviation [SD] 21) and the oldest was 'very high' (mean 69, SD 17). The healthy group had the smallest mean costs (CND563, SD CND4,121; equivalent to USD421, SD USD3,083). In contrast, the 'very high' group had the largest (CND20,398, SD CND36,188; equivalent to USD15,258, SD USD27,069). Age and gender standardized comorbidity index scores ranged from 0.05 to 6.41 (median 0.98). Additional analyses (e.g., costs per QALY) are ongoing and the results will be reported at the conference.
Conclusions: Our empirical approach is robust and flexible, allowing estimates of marginal productivity according to factors such as disease, geographical region, service type, and care sector. This work has applications at the provincial and national levels and adds to methodological literature in the field.

OP174 Health Technology Assessment And Economic Evaluations For A Genomic Strategy In Italy

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Introduction: The challenge to health systems is sustainability, not only in the economic and financial sense of compatibility of spending with allocated resources, but also in terms of equity in access to services and care, quality, safety, innovation and research, that is, in terms of the effectiveness of the right to health. Some countries, such as Italy, do not have formal health technology assessment (HTA) or other similar processes that take into account views outside the decision maker.
Methods: In the Italian national context, there is currently no single tariff for the reimbursability and pricing of genomic technologies. In fact, although genomic tests have been in clinical practice for many years now, to date they have not yet been included in the LEA (Minimum healthcare provision), especially in view of the fact that a defined and transparent process for updating the Essential Levels of Care has been operational since 2018. With the goal of structuring guidelines for the adaptability of economic evaluations to currently available and developing genomic technologies, a literature review was conducted.
Results: The literature review showed that there are some methodological and practical issues that need to be carefully considered when designing and conducting economic evaluations of genomic tests. In more detail, five key concepts were identified in order to implement the most comprehensive economic evaluation of the technologies under study: the PICO model, the survey perspective, the costs included in the analysis, the effectiveness analysis, the time horizon, and the discount rate.
Conclusions: Adequate definition of these concepts appears to be of paramount importance in view of the fact that genomic testing may

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have important consequences for future generations as well. For the purpose of sustainability of access of genomic technologies, the use of Budget Impact Analysis (BIA) is recommended in all analysis settings being essential for the regulator to tie access to its available budget capacity.

OP176 Integrating Real-world Compliance In The Assessment Of Left Atrial Appendage Closure Versus Anticoagulation Therapy In Non-valvular Atrial Fibrillation

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Introduction: In patients with non-valvular atrial fibrillation (NVAF), left atrial appendage closure (LAAC) has demonstrated non-inferior efficacy and safety relative to life-long oral anticoagulation therapy (OAT) in a four-year randomized controlled trial (RCT) (PRAGUE-17). Sub-optimal compliance to OAT in the real-world setting (Simmons 2016) has been associated with increased risk of stroke (Ozaki 2020) and may alter efficacy estimates derived from RCTs in which compliance is generally higher. The study aims to model disease outcomes in NVAF patients treated with LAAC versus lifelong OAT when applying trial versus real world compliance to OAT.
Methods: Real-world compliance to OAT in the Australian setting was investigated in a 10 percent Pharmaceutical Benefits Schedule (PBS) sample scripts analysis which measured treatment adherence and persistence to new oral anticoagulants (NOACs) and warfarin. Design of the 10 percent PBS analysis was informed by the compliance to medicine working group report and included the longest follow-up of any OAT compliance study identified in the literature. A Markov cohort model was developed to estimate the expected numbers of strokes and major bleeding events in NVAF patients.
Results: Rates of NOAC discontinuation in PRAGUE-17 was higher at 20 months median follow-up (6.5%) versus compliance in the Australian setting (35.4% and 30.0% according to 3 and 6 month ceasing rules at 20 months follow-up). Applying sub-optimal compliance to lifelong OAT demonstrated in the Australian setting resulted in higher numbers of strokes over a life time modelled time horizon compared with LAAC.
Conclusions: Real world compliance to medicines should be a consideration in economic analysis comparing lifelong medications to one-off surgical interventions.

Poster Presentations

PP01 Health Technology Assessment Of Cervical Artificial Disc Replacement: Highlighting The Need For A Consistent International Approach

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Introduction: Cervical artificial disc replacement (C-ADR) is not a new technology but one that has seen many technological advances in the past 10 years. Indeed, a recent review described total disc arthroplasty as the most innovative development in the history of spinal surgery. The primary goals of C-ADR are to reduce or eliminate pain, and restore normal segmental motion. The aim of this analysis was to identify, extract and examine key health outcomes and economic data from published health technology assessment (HTA) reports on C-ADR, with the aim of understanding how the evolution of this technology has influenced assessments internationally.
Methods: A comprehensive search of over 90 HTA organization websites and the INAHTA HTA database using key terms for C-ADR surgical procedures was coupled with a literature search of recent systematic reviews. No language restrictions were applied.
Results: Twenty HTA reports of C-ADR surgery published from 2005 to 2022 were included for review. Several HTAs (4/20) were updates or reassessments by the same agency and one was an update across agencies (Italy update of Belgian HTA). While many of the HTAs concluded C-ADR is as effective as standard care and superior in certain outcomes, there was no pattern or consistency in the conclusions or recommendations from these assessments, even as the evidence base expanded over time. Our analysis found this was largely due to variations in HTA approaches among agencies including: differences in research questions asked, PICO (Population, Intervention, Comparator, Outcomes) criteria and methods performed, such as: rapid versus full systematic reviews; inclusion of economic evaluations and/or budget impact analyses.
Indeed, one of the only predictive factors for a positive HTA was a favorable cost-effectiveness analysis.
Conclusions: C-ADR is an established technology with extensive HTA investigation internationally. The lack of a consistent approach taken by HTA bodies made prediction of successful HTA outcomes difficult. Future alignment of key evaluation processes and methods may help address current international variations and support consistent decision making on patient access.

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