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.

https://doi.org/10.1017/S0266462323001666 Published online by Cambridge University Press