

Introduction. The Irish Health Service (HSE) Health Technology Assessment Group (HTAG) aims to maximise the impact of its work by collaborating with HSE Procurement, formalised through an evidence-based Memorandum of Understanding (MOU). This study aims to inform the MOU.

Methods. A sequential mixed-methods study design was used. A rapid review of the literature identified no substantive body of evidence on collaboration between independent national health technology assessment (HTA) and procurement bodies. Personnel involved in HTA or procurement were invited by email to complete a survey, take part in an interview, or both. The quantitative and qualitative data were analysed using descriptive statistics and thematic analysis, respectively. Findings were integrated using a conceptual framework that examined the complementarity of HTA and procurement processes relevant to an MOU.

Results. Thirteen surveys were completed (response rate was 13 percent). Eleven interviews (five Ireland, two Canada, three UK, one New Zealand) were conducted between August and November, 2017. No formalised collaboration between independent national HTA and procurement bodies was identified. However in New Zealand, HTA and procurement are an integrated function of the Pharmaceutical Management Agency (PHARMAC). In other jurisdictions, successful ad hoc collaborations occurred where there was a clear need expressed by Procurement for additional evidence required for decision-making, and where HTA personnel tailored their research approaches accordingly. Key themes to successful collaboration were relationships, communication, clear roles, rigorous research and 'system support'. Good individual relationships and ready access/communication promoted successful outcomes. Successful outcomes included improved clinical practice, and major cost savings. Collaboration may be focussed on: innovative or established devices; specific types of HTA/research products; specific categories/specialties; or specific procurement departments.

Conclusions. All participants considered collaboration to be beneficial but requiring good relationships and 'system support'. Furthermore, successful collaboration requires clarity regarding the purpose, parties involved, their roles, responsibilities, modes of communication, information to be shared, and the expected outcomes.

OP96 Assessing Impact Of UK Health Technology Assessment Programme Trials

Christopher Carroll (Contact Author email: c.carroll@shf.ac.uk) and Andy Tattersall

Introduction. Citation analysis is a standard tool for measuring the impact and influence of scientific work. One purpose behind controlled trials is to answer clinical and policy questions and to contribute directly or indirectly (contributing to systematic review and meta-analyses) to the production of practice guidance. The citation of trials within systematic reviews and policy or guidance documents therefore represents an authentic and meaningful measure of impact.

Methods. All 136 randomized controlled trials published by the United Kingdom (UK) Health Technology Assessment (HTA)

programme in a 10-year period (2006-2015) were identified. Web of Science citation index was used to collect citation data relating to each trial. Altmetrics were used to identify additional policy and guidance documents. Citation data were collected and tabulated, and descriptive statistics produced. Additional data were collected for principal 'spin-off' publications.

Results. Eighty-eight percent of trials were cited by at least one Cochrane or non-Cochrane systematic review or meta-analysis; 37 percent by at least one Cochrane review (90 Cochrane reviews in total); 85 percent by at least one non-Cochrane systematic review or meta-analysis (365 in total). Forty-four percent of trials were cited by at least one unique piece of published policy or guidance. Mean number of review citations per published trial: 25.30; mean number of systematic reviews/meta-analyses per trial: 3.34; mean number of guidance documents per trial: 0.85. Trial investigators published the primary clinical outcome data in 27 additional peer-reviewed journal articles, generating citations in a further 66 unique reviews and 22 unique guidance documents.

Conclusions. Based on the payback model, this sample of 136 UK HTA trials represent meaningful impact: 88 percent of trials were cited in systematic reviews and 44 percent in guidance documents. Chronological data indicate that there might be a sizeable time-lag between publication and impact, especially for policy documents and Cochrane reviews.

OP97 Cost-effectiveness Model Appraisal Guidelines For Health Technology Assessments In Ireland

Felicity Lamrock (flamrock@stjames.ie), Joanne O'Connor, Joy Leahy, Claire Gorry, Lesley Tilson and Michael Barry

Introduction. The National Centre for Pharmacoeconomics (NCPE) assesses the cost-effectiveness of new drugs for which reimbursement by the healthcare payer, the Health Service Executive (HSE), is sought in Ireland. This research aims to create a systematic approach for the NCPE review group (RG) to assess each of the cost-effectiveness models submitted by the applicant by creating cost-effectiveness model appraisal guidelines.

Methods. The RG consists of clinical, statistical and health economic expertise. In order to systematically appraise the HTA submission, which includes a cost-effectiveness model, clear guidelines on how each of the members of the RG can work together are required. The current members of the RG in the NCPE were given a draft of the guidelines created by the primary author, and additional feedback and testing was performed using the expert experience of the team. A version of the guidelines was tested for its usefulness.

Results. Three checklists were created. The purpose of the first checklist is to evaluate if the cost-effectiveness model works correctly. The second checklist ensures that each of the assumptions included in the HTA dossier are the same as those included in the cost-effectiveness model. The final checklist validates the assumptions used in the cost-effectiveness model to ensure they are reasonable and appropriate for decision making. The final version of

the checklists were validated by choosing cost-effectiveness models with known errors and/or discrepancies and testing that the issues were captured by the checklists.

Conclusions. These guidelines are not an exhaustive list of checks that should be performed, but are presented as the minimum requirements for consideration to be included with each RG assessment of the corresponding HTA submission. The guidelines will be constantly updated as the process evolves over time. The cost-effectiveness models should follow the National Health Information and Quality Authority (HIQA) Guidelines for the Economic Evaluation of Health Technologies in Ireland.

OP98 Limitations In Health-Economic Guidance For Medical Devices

Maximilian Blüher, Virginie Mittard, Rafael Torres and Rhodri Saunders (rhodri@coreva-scientific.com)

Introduction. Health technology assessment (HTA) includes consideration of health and economic factors, playing a key role in optimizing healthcare provision in Europe. Medical devices are an important contributor to both health outcomes and the cost of healthcare provision, yet they are rarely addressed in current guidance for health-economic evaluation. Our aim is to help improve assessment of medical devices via review of European health-economic guidelines and recent research.

Methods. Searches for European HTA guidelines were performed and where available were reviewed by two researchers working independently. Additionally, a systematic review of published literature focused on assessment of medical devices was conducted. English, German, or French literature published between 2000 and 2017 was analyzed. The status of HTA guidance to date was subsequently reviewed in light of current research findings and suggestions made to help improve standardization.

Results. Of the 41 investigated European countries, 22 had official HTA guidance. Only four of 22 (18 percent) dedicated documentation to guidance specific to medical devices. Where differences between pharmaceuticals and medical devices were highlighted, specifics for health-economic assessment of medical devices were generally absent. The systematic review yielded 472 unique articles, 28 of which underwent full-text review. Issues surrounding medical device value assessment that commonly emerged were: limited evidence base, learning curve effects, organizational impact, incremental innovation, diversity of devices, dynamic pricing, and transferability. While identification of issues was ubiquitous, actionable suggestions on how to overcome them were less common. The most frequent recommendations were use of Bayesian methods, inclusion of real-world data, and modelling the learning curve. Key to implementation is determination of the medical device type and its impact duration.

Conclusions. Current guidelines rarely address the needs of medical devices. Practical recommendations for improvements exist and provide opportunity to start discussion on how best to serve the medical devices field and improve the HTA process.

OP103 Incorporating Health Technology Assessment In The Development Of A Clinical Care Pathway

Maria Benkhalti (maria.benkhalti.ciussse-chus@sss.gouv.qc.ca) and Pierre Dagenais

Introduction. Clinical care pathways (CPWs) provide a step-wise multidisciplinary care plan for patients with a particular health condition. Their aim is to optimize patient outcomes and organization of care by supporting evidence-based practice. It therefore seems inevitable that health technology assessment (HTA) should be incorporated within the development process of a CPW. As CPWs become increasingly utilized, there is a need to understand the added value and strategies to integrating HTA in the development of a CPW.

Methods. Through a case study of an HTA on treatments for chronic low back pain requested as part of the development of a CPW for chronic musculoskeletal pain, we demonstrated the three key strategies to include HTA in CPWs described by Rehaluk 2016 and added a fourth one. We then showed how these strategies contribute to the development of a CPW which answers the quality criteria outlined by the Cochrane Effective Practice of Care group through a strength, weaknesses, opportunities, and threats analysis.

Results. We confirmed four key strategies to including HTA in CPWs (organizational positioning of the HTA unit, partnership and communication with stakeholders, tailoring the integration of contextual data with evidence from the literature, explore tools to facilitate the use of HTA findings). The inclusion of HTA through these strategies contributes to the development of a CPW which meets the ten criteria to evaluate the quality of a CPW outlined by the Cochrane Effective Practice of Care group. Through a strength, weaknesses, opportunities, and threats analysis, we describe how each of the criteria were met and how this led to recommendations influencing our regional organization of care.

Conclusions. The inclusion of HTA in CPW development increases its capacity to directly influence organization of care. HTA can represent a pivotal vehicle to ensure good quality CPWs.

OP105 Factors Affecting Horizon Scanning For Hospital-Based Health Technology Assessment

Anastasia Chalkidou (anastasia.chalkidou@kcl.ac.uk), Jamie Erskine, Thomas Macmillan and Stephen Keevil

Introduction. The strategic MedTech investment for the expansion of a central London paediatric hospital must sustain its ambitions to remain a state-of-the-art hospital, whilst implementing recent and future MedTech innovations and taking into account spatial and financial limitations. Horizon scanning (HS) is an important health technology assessment (HTA) tool to achieve these goals. To this end, we developed a methodology to help decide the suitability of investing in the following imaging-based