OP414 The Influence Of Cost-Effectiveness Evidence And Other Factors On China's National Reimbursement Drug Listing Decisions

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Introduction. China's National Reimbursement Drug List (NRDL) covers medicines that are included in national health insurance schemes. NRDL updates take into account evidence and recommendations of experts from the fields of medicine, health economics, pharmacy and health policy. A negotiation mechanism between the government and manufacturers was introduced in 2017 to include a more detailed evaluation and negotiation for high cost drugs. However, the values that are considered in NRDL decision making are not well-understood. This study aims to investigate the influence of available evidence and other factors on coverage decisions.

Methods. Outcomes of the 2017 and 2018 NRDL negotiations were analyzed. Logistic regression was used to investigate factors associated with listing decisions. Ordinary least squares and Tobit regression were used to investigate factors associated with negotiated price discounts. Independent variables were published cost-effectiveness analysis (CEA), incremental cost-effectiveness ratio (ICER), disease area, burden of disease (disability-adjusted life years), company ownership (domestic or foreign) and regulatory approval year.

Results. Twenty-eight out of sixty-two negotiated drugs had one or more published CEA studies in the English or Chinese language, although neither the presence of a study nor the central ICER estimates were predictive of price discount or listing. A longer time since regulatory approval was a significant predictor of listing ($p < 0.05$). Disease area (oncology) and ownership (foreign) were significant predictors of a higher price discount ($p < 0.01$).

Conclusions. The NRDL plays a key role in providing access to healthcare for the 95 percent of China's population that is covered by public insurance. We found several factors that were associated with reimbursement decisions. Many of the medicines in the NRDL negotiation have CEA evidence, although the role of CEA in reimbursement decision making in China remains inconclusive.

OP441 Testing The Sensitivity And Precision Of The Cochrane MEDLINE Randomized Controlled Trial Search Filters

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Introduction. The Cochrane Handbook of Systematic Reviews contains two search filters to find randomized controlled trials (RCT) in Ovid MEDLINE: a sensitivity maximizing RCT filter and a sensitivity and precision maximizing RCT filter. The RCT search strategies were originally published in 1994 have been adapted and updated, most recently in 2008. To determine whether the Cochrane filters are still performing adequately to inform Cochrane reviews, we tested the performance of the Cochrane filters and 36 other MEDLINE filters in a large new gold standard set of relevant records.

Methods. We identified a gold standard set of RCT reports published in 2016 from the Cochrane CENTRAL database of controlled clinical trials. We retrieved the records in Ovid MEDLINE using their PubMed identifiers. Each RCT filter was run in MEDLINE and combined with the gold standard set of records, to determine their sensitivity, precision and f-scores.

Results. The gold standard comprised 27,617 records and the searches were run on 16 July 2019. The most sensitive RCT filter was Duggan (sensitivity 0.99). The Cochrane sensitivity maximizing RCT filter had a sensitivity of 0.96, but was more precise than Duggan (0.14 compared to 0.04 for Duggan). The most precise RCT filter was Chow, Glanville/Lefebvre, Royle/Waugh, Dumbrique (precision 0.97, sensitivity 0.83). The best precision Cochrane filter was the sensitivity and precision maximising RCT filter.

Conclusions. The Cochrane MEDLINE sensitivity maximizing RCT filter can continue to be used by Cochrane reviewers and CENTRAL compilers as it has very high sensitivity but a more acceptable precision than many higher sensitivity filters. Slightly more sensitive filters are available, but with lower precision than the Cochrane sensitivity maximizing RCT filter. These other filters may be preferred when combining with a subject search when record numbers may be more manageable than searching the whole of MEDLINE.

OP447 Feasibility And Validity Of Real-World Data As Evidence Of Effectiveness - Experience From Breast Cancer Care In Scotland

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Introduction. Data from randomized controlled trials (RCTs) are the primary source for health technology assessment (HTA) however these are limited by strict patient inclusion criteria, leading to concerns about whether treatment benefit estimates are accurate for all patients (generalizability). Real-World Data (RWD) have been proposed as a solution however as these are observational data there is additional potential for bias when estimating treatment effectiveness. To maximize the utility of RWD it is useful to consider the whole process of evidence generation and robustly address issues of feasibility and validity.

Methods. A series of complementary studies investigated whether population-based routinely collected health data from Scotland are suitable for estimating the effectiveness of chemotherapy for early breast cancer. Firstly, a prognostic score was validated in this population. Secondly, a comparison of RWD and randomized trial effectiveness estimates was made to investigate feasibility and validity of several methods – Propensity Score Matching (PSM), Instrumental variables (IV) and Regression Discontinuity. Finally, effectiveness estimates in trial underrepresented groups were produced.

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Results. PSM and IV were feasible and produced results in relatively close agreement with randomized data. Effectiveness estimates in trial underrepresented groups (women over 70 years and women with high comorbidity) were consistent with an approximate one-third reduction in the risk of death from breast cancer. This is equivalent to approximately a 3–4 percentage point difference in all cause mortality over 10 years in these groups.

Conclusions. RWD are a feasible for generating estimates of effectiveness of adjuvant chemotherapy in early stage breast cancer. The process of using RWD for this purpose should include careful assessment of data quality and comparison of alternative strategies for causal identification in the context of available randomized data.

OP456 The Format And Language Consistency Of Guidance At The National Institute Of Health And Care Excellence (NICE)

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Introduction. NICE is undergoing transformational change aiming to improve consistency across the different types of guidance and to bring together related guidance in a more accessible way (NICE Connect). Currently, NICE publishes myriad guidance with different language and formats, which may lead to stakeholder confusion and gaps in the provision of information. Here, the consistency of the format and language of a subset of NICE guidance was assessed to understand where and how guidance could be better aligned. This preliminary investigation is important to determine the extent of inconsistencies and whether a more detailed analysis is warranted.

Methods. Ten randomly selected pieces of guidance published (or updated) April 2018 – March 2019 from three programs were assessed (two pieces of guidance or ten percent of guidance per program, whichever was greatest): Medical Technologies (n = 2); Diagnostics (n = 2); Technology Appraisals (n = 6). Guidance was assessed on aspects listed on the guidance webpage (for example, summary type, additional sections, links to other resources, format) and the guidance pdf (for example, table of contents and language). Observed data and trends are described.

Results. The webpage summary and additional sections were consistent within and between programs. Additional information on the webpages showed themes which are not currently standardized (for example, guidance history). In the table of contents only one section was consistently included in all guidance, and the terminology was not consistent across different types of guidance. The format used to present evidence differed between programs (webpage tab or within the pdf), as did terminology for the external assessment groups.

Conclusions. These descriptive data highlight inter- and intra-program inconsistencies in the content and format of NICE guidance, especially in the guidance table of contents and the format and language regarding the provision of evidence. These inconsistencies contribute to the inaccessibility of NICE guidance, making it potentially difficult for patients and professionals to understand guidance, conditions and treatments as a whole.A more comprehensive analysis is warranted to extend and validate these conclusions. Future research of this kind could constructively direct the resources and priorities of NICE transformational projects, and could lead to an improvement in the accessibility of NICE Guidance.

OP457 A Collaborative Horizon Scanning Alert For Disinvestment And Early Awareness

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Introduction. In 2019, the Norwegian Institute for Public Health and Canadian Agency for Drugs and Technologies in Health (CADTH) received support from HTAi to produce a quarterly current awareness alert for the HTAi Disinvestment and Early Awareness Interest Group in collaboration with the HTAi Information Retrieval Interest Group. The alert focuses on methods and topical issues, and broader forecasts of potentially disruptive technologies that may be of interest to those involved in horizon scanning and disinvestment initiatives in health technology assessment (HTA).

Methods. Information specialists at both agencies developed search strategies for disinvestment and for horizon scanning in PubMed and Google. The template for the alert was based on an e-newsletter developed by the Information Retrieval Interest Group. Information specialists and researchers reviewed the monthly (PubMed) and weekly (Google) search results and selected potentially relevant publications. Additional sources were also identified through regular HTA and horizon scanning work.

Results. Alerts are posted quarterly on the HTAi Interest Group website; members receive an email notice when new alerts are available. While the revised PubMed searches are identifying relevant information, Google alerts have been disappointing, and this search may need to be revised further or dropped. When the one-year pilot project ends, in Fall 2020, interest group members will be surveyed to see if the alerts were useful, and whether they have suggestions for improving them.

Conclusions. Collaborating on this alert service reduces duplication of effort between agencies, and makes new research in horizon scanning and disinvestment more accessible to colleagues in other agencies working in these areas.

OP484 Analysis Of Horizon Scanning Outputs For The National Institute for Health and Care Excellence Health Technology Assessment Process

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