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

Thomas Butt (thomas.butt@ucl.ac.uk), Daniel Ollendorf, Renxing Zhao and Gordon G. Liu

**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

Julie Glanville, Eleanor Kotas (eleanor.kotas@york.ac.uk), Robin Featherstone and Gordon Dooley

**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

Ewan Gray (ewan@eghealtheconomics.com), Joachim Marti, David H Brewster, Jeremy C Wyatt and Peter S Hall

**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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