PRM43

HORIZON SCANNING IN ONCOLOGY – RAPID SCANNING APPROACH IN SLOVAKIA

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OBJECTIVES: Horizon scanning is in place in many European countries, as well as outside of the Europe. Slovakia didn´t formalize that approach yet, but extreme pressure on healthcare budget has resulted in the implementation of the pilot project. **METHODS:** Rapid scanning was chosen as the most appropriate method for the pilot project. Prioritisation meeting was held at Slovak Medical University. Experts chose the area for scanning, agreed on method and form. Subsequently, all pharmaceutical companies were contacted to report expected new oncological indication registration for already registered molecules or for newly developed molecules. Finally we completed the table report by a literature overview using systematic research from pre-selected sources. The selected period was years 2017-2019. **RESULTS:** The report contained 31 molecules in 46 indications. 14 were already registered between 2012 and 2016. 4 new indications are expected the treatment of oncological diseases to molecules that are already registered. 18 new molecules were expected to be registered for the treatment of oncological diseases, 1 of them as the extension of the indication to the molecule, which is expected to be registered in 2017. 4 molecules reported new indications in the period after 2019. 3 already registered molecules were reported without time frame. The return of the questionnaires was 57%. The table was completed by 40 more molecules, 2 of them were excluded due to marketing authorization withdrawal and 15 were excluded due to inappropriate period. **CONCLUSIONS:** The report completed by the data from the search created the baseline for next steps – final prioritization based on burden of disease and potential impact on patients and budget impact. This shall result on planning of managed entry processes.

PRM44

THE IMPORTANCE OF PERSPECTIVE WHEN EVALUATING THE ECONOMIC VALUE OF VOCATIONAL REHABILITATION

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OBJECTIVES: The NICE reference case recommends economic evaluations take an NHS and Personal Social Services (PSS) perspective. This is appropriate if all of the associated costs and benefits are captured, however less so, when a proportion lie outside of healthcare. We aim to explore the importance of perspective in the FRESH trial. This trial assessed the feasibility of delivering a full scale trial evaluating the (cost) effectiveness of Vocational Rehabilitation (VR), an individualised return to work programme, amongst Traumatic Brain Injury patients in comparison to usual care, across three trauma centres in England. **METHODS:** This feasibility study compared alternative methods of collecting and valuing resource use data, which included taking two perspectives: NHS and PSS, plus a societal perspective. Several methods were used to estimate time off work costs, for example using national average hourly wage rates compared to participant reported earnings, as well as valuing presenteeism through the Workers Productivity and Activity Impairment instrument compared to bespoke questions. **RESULTS:** When societal costs were considered, such as government employment services, time off work and out of pocket costs, the broader costs accounted for 61.77% of total costs in the VR group, compared to 80.90% within usual care. Though these percentages varied according to methods used, they demonstrate that within any full-scale economic evaluation conducted, it is likely that the largest cost-drivers will occur using a societal perspective. Taking a broader perspective adds complexity to an evaluation in terms of appropriately capturing the data and in identifying sources of unit costs. **CONCLUSIONS:** Using a limited perspective where significant costs and benefits are believed to lie outside healthcare could lead to erroneous estimates of value for money and poor value from public funding. Further research is required to inform how such wider resource items should be measured and valued.

PRM45

IDENTIFYING COST EFFECTIVE METHODS OF HEALTH TECHNOLOGY ASSESSMENT FOR DEVELOPERS – THE NEED FOR FAST AND FRUGAL EVALUATION

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OBJECTIVES: "Early" or Supply-side Health Technology Assessment (HTA) is potentially useful during technology development. Supply-side HTA aims to inform investment and study-design decisions made by developers and investors. Supply-side HTA analysis can improve decision making and increase the net return on investment, and hence justify its own costs, in two ways: 1) by increasing the achievable price, market share or development costs for technologies that are ultimately successful, and 2) by reducing development costs, possibly by facilitating earlier termination of development, for technologies that are ultimately unsuccessful. Given the large number of candidate products, high rates of failure and fast pace of development `fast and frugal' methods are required for supply-side HTA to be cost-effective. This study aims to identify 'fast and frugal' methods for supply-side HTA and propose a 'fast and frugal' framework for supply-side HTA. **METHODS:** A wide-ranging cross-disciplinary pearl-growing literature review was undertaken. Methods of supply-side HTA were grouped according to their aim, methodology and resource requirements. A framework of activities in supply-side HTA was developed. Studies where authors had sought to apply 'fast and frugal' methods were identified and adaptations were noted. **RESULTS:** 81 studies were found exemplifying methods of supply-side HTA. Cost-effectiveness analysis was the most frequent method applied, expert elicitation and user-feedback methods were also well represented. One 'fast and frugal' application of a quantitative method ('headroom') was identified and one qualitative toolkit. There was a lack of studies using early stage qualitative methods. A framework for supply-side HTA was developed encouraging explicit qualitative steps before a quantitative model is developed. Possible adaptations to supply-side methods to enable 'fast and frugal' approaches were noted. **CONCLUSIONS:** Both qualitative early-stage and 'fast and frugal' supply-side methods may be valuable to developers and warrant further development.

PRM46

WHICH INFORMATION SOURCES SHOULD BE USED TO IDENTIFY STUDIES FOR SYSTEMATIC REVIEWS OF ECONOMIC EVALUATIONS IN HEALTHCARE?

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OBJECTIVES: The key economic evaluation (EE) databases, NHS EED and HEED, have closed. Which databases do we now need to search to identify economic evaluations for models and systematic reviews (SRs)? We assess which databases are now the best sources of EEs and whether typical search strategies are effective. **METHODS:** A quasi-gold standard (QGS) set of economic evaluations was formed from studies included in SRs of EEs undertaken to inform HTA. 9 databases were searched for each QGS reference. Yield for each database, and combination of databases, was calculated. MEDLINE search strategies reported in source SRs were re-run to assess their performance in finding EEs. **RESULTS:** We built a QGS of 351 records from 46 reviews. Embase had the highest yield (0.89), followed by Scopus (0.84) and MEDLINE and PubMed (both 0.81). The HTA database identified the highest number of unique records (13/351), despite a low overall yield (0.1). All 9 databases combined retrieved 337/351 records. The most efficient combination of databases which could be searched to find records for all 337 references was Embase, Scopus, HTA Database and (MEDLINE or PubMed). 10/29 (34.5%) of re-run strategies missed at least 1 of the included records available in MEDLINE (25 records missed in total). Only 1 of the missed records was due to failings of search terms used for the economics concept. **CONCLUSIONS:** For most SRs Embase, HTA Database and either PubMed or MEDLINE are likely to be sufficient to identify EEs included in bibliographic databases. Additionally searching a multidisciplinary database may be useful, particularly in non-clinical topics. Beyond this, supplementary search techniques may be more efficient than extensive database searching. Weaknesses in reported MEDLINE search strategies were identified which impacted retrieval; these weaknesses appear to be associated with population and intervention concepts, rather than the economics concept.

PRM47

SINGLE DISTRIBUTION, TWO-PART, AND TWO-COMPONENT FINITE MIXTURE MODELS FOR PREDICTING SMOKING-RELATED INDIRECT COSTS IN US WORKING ADULTS

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OBJECTIVES: Indirect costs data typically include a high proportion of zeros that cannot be adequately modeled with a single distribution. The current study examined predicted total costs associated with work impairments using different models applicable to such distributions. **METHODS:** Data on employed US adults (18-64 years old) were analyzed from the 2013 National Health and Wellness Survey. Self-report was used to define smoking status (never smoked, quit, attempting to quit, and currently smoke) as a predictor. Costs due to work productivity loss were derived from Work Productivity and Activity Impairment questionnaire-based measures on percentage absenteeism and presenteeism, and calculated using weekly wages by age and sex from the US Bureau of Labor Statistics (2014). Given excessive zeros (60%) in the cost data, two-part (first part logit, second part negative binomial [NB]) and two-component finite mixture (first component constant, second component truncated NB) models were used to predict costs as a function of smoking status, controlling for respondent demographics and health characteristics. Model fit statistics (Akaike and Bayesian Information Criterion [AIC and BIC, respectively] and mean squared error [MSE]) were compared with those from a single-distribution generalized linear model (GLM) with NB distribution, which is also suited to highly skewed, count-like distributions. **RESULTS:** Among 36,883 working adults, the two-part model had the best fit statistics (AIC=359159; BIC=359355) compared with the mixture (AIC=394788; BIC=395001) and the GLM (AIC=391201; BIC=391312) models, and also the smallest MSE (105454117 compared with 105482560 and 21486386573, respectively). Overestimation of costs among those with zero cost was greatest in the single-distribution GLM (average predicted costs=$5306.76) compared with those from two-part ($5293.13) and mixture ($5293.04) models. **CONCLUSIONS:** In a broadly representative US population of working adults, two-part modeling was found to better represent high zero-skewed indirect cost data compared with two-component finite mixture and single-distribution models.

PRM48

ACCOUNTING FOR CAPACITY CONSTRAINTS IN ECONOMIC EVALUATIONS OF STRATIFIED MEDICINE: A SYSTEMATIC REVIEW

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OBJECTIVES: Stratified medicines are viewed as promising interventions to safely, effectively and cost-effectively target treatment to eligible sub-groups of patients. However, the adoption of stratified medicines into practice has been slower than anticipated. Regulatory approval and reimbursement of stratified medicines creates an immediate demand for companion-diagnostic tests which were either not previously available or not prognostically useful. Health system capacity constraints can slow the implementation of stratified medicines and potentially influence their relative cost-effectiveness. This study aimed to identify if, and how, previous economic evaluations of stratified medicines had accounted for capacity constraints and the potential impact on relative cost-effectiveness. **METHODS:** A meta-review conducted in February 2017 used an electronic search of the EMBASE and MEDLINE databases to identify all previous systematic reviews of economic evaluations relevant to stratified medicines. Primary economic evaluations of interventions of a