

support the cost-effective use of NHS resources, but other factors regularly influence decision-making.

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ASSESSING THE QUALITY OF MANUFACTURERS' SEARCHES IN NICE SINGLE TECHNOLOGY APPRAISALS BY EVIDENCE REVIEW GROUPS

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OBJECTIVES: No guidelines exist in the approach that Evidence Review Groups (ERGs) should take to appraise search methodologies in the manufacturer's submission (MS) in single technology appraisals (STA). As a result, ERGs are left to appraise searches using their own approach. This study investigates the limitations of manufacturers' search methodologies as critiqued by ERGs in published STA reports. **METHODS:** Limitations from search critiques in 83 ERG reports published in the NIHR website between 2006 and May 2011 were extracted. The limitations were grouped into themes. Comparisons were made between limitations reported in the clinical effectiveness versus cost-effectiveness searches. **RESULTS:** Over 60 different limitations were identified and sorted in seven broad themes: missing studies, search strategy, reporting, sources, limits, filters and translation. The search strategy theme contained the most limitations. Missing studies were frequently found by the ERG group in the clinical effectiveness searches. The omission of searches by manufacturers for unpublished and ongoing trials was frequently reported by the ERG. By contrast, failure of the manufacturer to report strategies was the most common limitation in the cost-effectiveness searches which may explain the number of missing critiques in some ERG reports. Themes with the most frequent limitations in both types of searches are search strategy, reporting and source. **CONCLUSIONS:** Variations exist in the limitations reported in both clinical and cost-effectiveness evidence searches in STAs. It is recommended that separate checklists or one that incorporates both reporting and search strategy appraisal be used to ensure that ERG groups and manufacturers are aware of the range of limitations that might exist when appraising searches.

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PAYER INFORMATION REQUIREMENTS FOR RELATIVE EFFECTIVENESS ASSESSMENT VARY ACROSS MARKETS AND CREATE DISCREPANCIES IN PATIENT ACCESS TO MEDICINES

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OBJECTIVES: To 1) evaluate how relative effectiveness assessment (REA) is used within the national pricing and reimbursement (P&R) processes in 8 developed and emerging markets; 2) to understand payer REA requirements and preferences in each of the markets studied; and 3) to analyse how the process impacts patient access to medicines across geographies. **METHODS:** IHS studied national P&R processes through primary and secondary research to establish how REA is leveraged to rationalise reimbursement and control price levels. Over 30 key relative effectiveness assessors and P&R decision makers were interviewed to understand the level and type of relative effectiveness evidence they look for in practice, broken down by public versus private sector, primary versus secondary-care segment, and key therapeutic areas. This research was further supported by real-life REA case studies across key therapeutic areas. **RESULTS:** The evaluation of the therapeutic value of a medicine can result in P&R decision discrepancies across markets. These coverage disparities notably reflect societal and methodological differences in the way the available evidence is interpreted across markets. In terms of how therapeutic value is factored into P&R decisions, markets can be segmented into two broad categories: 1) those that rely on economic evaluation to assess therapeutic value, and 2) those that evaluate the added therapeutic value/improvement in actual clinical benefit without considering associated costs. In terms of information needs, payers wish to be in a position to evaluate how new medicines compare with the standard of care in their specific health care setting and in their patient population when making their P&R decisions. **CONCLUSIONS:** REA will increasingly be used in future to rationalise finite health care resources and budgets. For now there are two schools when it comes to the methodology and patient access to medicines is more stringent in countries that undertake economic evaluation.

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EXPLORING THE ROLE OF THE COMMITTEE IN THE NICE APPRAISAL PROCESS: HOW CONSISTENT ARE DECISIONS ACROSS COMMITTEES?

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OBJECTIVES: NICE technology appraisals are reviewed by one of four committees (A to D). Given the standard submission template, the information submitted as part of the appraisal process is the same across submissions. Therefore, committees may be expected to make similar decisions regarding the acceptance or rejection of submissions. This research explored whether there were differences in acceptances or rejections between committees and which factors affected those decisions. **METHODS:** Final appraisal determinations (FADs) from October 2009 to May 2012 were identified and reviewed. The committee, decision, and reasons for the decision were extracted from the FADs. Rates of acceptance or rejection were compared across the four committees using Fisher's exact test. The composition of each committee and the considered therapy area were also assessed. **RESULTS:** This research considered 53 submissions, from which 63 recommendations were generated. Committee A made the highest proportion of positive recommendations (75%) and Committee D made the lowest proportion (50%). The background of committee members was similar between Committees A and B, and between C and D, but differed between those two sets. However, the number of acceptances or rejections did not differ significantly by committee ($p=0.560$). Limitations in clinical

evidence were cited as a reason for rejection more frequently than limitations in economic evidence across all committees. The considered therapy areas differed between committees though cancer was the most commonly-appraised area; Committee C reviewed the highest proportion of cancer submissions. For this therapy area, the rate of acceptance or rejection did not differ significantly by committee ($p=0.126$). **CONCLUSIONS:** The likelihood of positive or negative recommendations did not appear to vary by the committee assessing the submission. Given the reasons for negative recommendations and the proportion of academic committee members, maximising the quality and rigour of submitted evidence is a rational approach to the appraisal process.

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THE ROLE OF DECISION-ANALYTIC MODELING IN GERMAN HEALTH TECHNOLOGY ASSESSMENTS

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OBJECTIVES: Decision-analytic modeling has become a widespread method applied in Health Technology Assessments (HTA), but the extent to which modeling is used differs widely among international HTA institutions. The German Agency for Health Technology Assessment (DAHTA) states in its methodological guidelines that model calculations can be carried out if necessary and feasible. However, DAHTA does not provide any methodological guidance in this regard. Aim of this study is to quantify the current role of decision-analytic modeling in DAHTA-reports and to analyze the applied methods. **METHODS:** All 140 DAHTA-reports published between 1998 and May 2011 were screened for the specific development of new decision-analytic models. To assess the impact of these models on recommendations, all relevant reports were reviewed with respect to the health economic conclusion, modeling methods and further research needs. **RESULTS:** A total of 90 DAHTA-reports incorporate an economic assessment. Of these, ten reports develop a new specific decision-analytic model. About 30% of the reports without a model come to a general economic conclusion but only one report gives a clear recommendation without major limitations. About 20% of these reports explicitly state that the development of a model for the German setting may have helped to come to a clear conclusion. In contrast, all reports incorporating a model give an economic recommendation – two of these with limitations. The identified models differ with respect to the type of health economic evaluation (cost-effectiveness, cost-utility), model type (decision tree, Markov model, Monte Carlo simulation), time horizon (two weeks – life long), discount rate (3%, 5%), perspective (statutory health insurance, care provider, social), outcome parameters (generic, disease specific) and sensitivity analyses (one-way, multi-way, probabilistic). **CONCLUSIONS:** Incorporating decision-analytic models in German HTAs has the potential to increase the number of health economic recommendations, but only a fraction of reports developed a specific model so far.

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CALCULATED FORECAST FOR TECHNICAL OBSOLESCENCE IN COMPUTERISED TOMOGRAPHY EQUIPMENT

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OBJECTIVES: To estimate the useful life of Computerised Tomography Equipment (CT) **METHODS:** A main components analysis in this methodology has allowed for a reduction in the number of variables on the survey-file in Computerised Tomography technology and facilitates subsequent work without a significant loss of information. The Log Binomial Regression Model has enabled probability calculations on answers (technology leap) to the different levels of stimuli (changes in variables, temporary development, detection system, imaging resolution and equipment power). Using a Discriminant analysis, the objective has been to estimate, based on time, the chances of a technological leap occurring. **RESULTS:** The 18 evaluated technical parameters in Computerised Tomography Technology have been grouped in three main components: Detection System which explains 72.4% of the variance; Imaging Resolution which explaining 13.55% of the variance and Equipment Power explaining 7.1% of the variance. Logistic regression allows us to approximate the influence of each main component with the passing of time, the implementation of a technology leap, with its significant influence with positive signs of temporary evolution (0.430), and with a negative sign for the main component the detection system (−3.974), image resolution (−3.766) and equipment power (−2.460). For Determinant analysis, the explanatory variables used in the model are the 3 components calculated. The prediction model obtains a lower percentage of success than the Log Binomial, around 66.7%. The most important factor in influencing the change of technology seems to be the image resolution followed by the detection system and a negative sign for temporary evolution. **CONCLUSIONS:** The results of the present project will enable advance knowledge of the expectations of technological change in CT technology, allowing an advance in investment planning for this technology, for acquiring and installing this type of technology.

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COMPARING THE HUNGARIAN METHODOLOGICAL GUIDELINE FOR CONDUCTING ECONOMIC EVALUATION OF HEALTH CARE INTERVENTION WITH EUROPEAN GUIDELINES

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OBJECTIVES: The Hungarian methodological guideline for conducting economic evaluation of health care interventions was published in 2002 and the modified version will be shortly published. The 10th anniversary of the Hungarian HTA