rare diseases, consideration of alternative acceptance criteria for public reimbursement/health service provision may be required.

THE IMPACT ON DECISION-MAKING OF CHANGING COST-EFFECTIVENESS OF HEALTH TECHNOLOGIES OVER TIME

Pang F1, Tolley K2
1Abbott Laboratories Ltd, Maidenhead, Berkshire, UK; 2MAPI VALUES, Bollington, UK

OBJECTIVES: Estimation of cost-effectiveness of health technologies tends to focus on the time period at or around launch, to fulfill the growing requirements of reimbursement or market access agencies. This study reviews the factors which influence cost-effectiveness over time and demonstrates the temporal impact on cost-effectiveness using a number of case-studies. The implications for decision making and market access are discussed.

METHODS: A review of the factors that may influence cost-effectiveness over time and methodological approaches used to address these was conducted. Earlier analytical frameworks of studies from the 1990s in the fields of motor airbags, implantable cardiac defibrillators, statins, renal dialysis and hearing aids were revisited to re-estimate the cost-effectiveness. For example, parameters of an economic evaluation conducted in 1990 for erythropoetin were updated to 2004 values using a recent systematic review of clinical evidence together with revised unit costs and expert clinical opinion for resource utilisation.

RESULTS: For the majority of case-studies examined, there was a trend for the reduction in cost-effectiveness ratios over time—e.g. for erythropoetin, the base-case cost per QALY decreased ten-fold over a 14 year period (£216,906 to £21,547). Significant factors included unit costs, dosage, utility gains and revised discounted rates.

CONCLUSIONS: The timing of economic evaluation is critical in the estimation of cost-effectiveness. Production of this evidence may often be the first time that the conceptual framework of economic analysis has been applied to the technology, despite suggestions that economic evaluation should be used iteratively throughout the product life-cycle. This study has demonstrated that whilst there is a need for economic evaluation results to be timely to aid decision-making (i.e. at or around launch), it is important that the analysis is updated and reviewed periodically to assess whether cost-effectiveness has changed sufficiently to justify modifying the original decision.

EXAMINING THE QUALITY OF HEALTH ECONOMIC ANALYSES SUBMITTED TO THE REIMBURSEMENT AGENCIES IN SWEDEN AND FINLAND—A CROSS COUNTRY COMPARISON

Engstrom A1, Kivioja A2
1Pharmaceutical Benefits Board, Solna, Sweden; 2Ministry of Social Affairs and Health, Helsinki, Finland

OBJECTIVES: To compare the quality of the health economic material submitted to the Swedish Pharmaceutical Benefits Board and the Finnish Pharmaceuticals Pricing Board as part of the application for reimbursement for new pharmaceuticals.

METHODS: The health economic evaluations were reviewed in each country against two checklists, marking each question Yes/No/Not Applicable. The checklists used were: 1) the respective national Guidelines transformed into yes or no questions, 2) the QHES check list, a validated instrument, was also used to provide a common comparator. The central estimate of cost effectiveness was collected (cost per QALY) as well as whether the application was accepted or rejected in each country.

RESULTS: The Swedish scores range from 0.24 to 0.87 and on the QHES from 0.09 to 1, with a mean quality of 0.61 and 0.67 respectively. The Finnish scores range from 0.58 to 0.96 and on the QHES from 0.28 to 0.84, with a mean quality of 0.76 and 0.62 respectively. The correlation between the respective national guidelines and the QHES scores is modest (approx. 0.7 both in Sweden and in Finland). This is mostly due to country specific criteria. There was a low observed correlation between quality score and acceptance in Sweden and also in Finland. Likewise, the correlation between cost per QALY and decision to accept/reject is low to medium.

CONCLUSIONS: Health economic material as part of applications to reimbursement agencies varies widely in quality. There are differences even for the same product in the two countries. Secondly, due to the relatively small number of applications studied and the even fewer rejections, it is difficult to draw firm conclusions regarding the value the pricing authorities studied placed on a QALY.