dataset, whilst also having high prices, due to small patient populations, limiting commercial returns, may necessitate increased utilisation of alternative reimbursement mechanisms.

VP75 Improving Access To Ultra-Orphan Medicines In NHS Scotland

Noreen Downes (noreen.downes@nhs.net), Jan Jones, Anne Lee, Ailsa Brown, Pauline McGuire and Helen Wright

Introduction. Medicines for very rare conditions present challenges for healthcare globally due to uncertain evidence and often extremely high costs. In 2014, SMC introduced an ultra-orphan framework placing less emphasis on the cost per quality adjusted life year (QALY). Despite this, many medicines continued to be not recommended. A new pathway aimed at improved patient access based on further evidence collection is now being implemented.

Methods. The development of the new pathway has involved collaboration with key stakeholders including patient groups, the pharmaceutical industry, and clinicians. Medicines that meet a new definition (based on four criteria including the prevalence of the condition treated) will be appraised by the SMC committee and a data collection plan will then be agreed with the pharmaceutical company.

Results. From April 2019, medicines validated as ultra-orphans will initially be appraised using the broader decision-making framework and the SMC committee will outline key uncertainties in the clinical effectiveness. The medicine will then be available for a period of at least three years while further data are gathered, potentially comprising ongoing clinical trials, registry data, and patient reported outcome measures. SMC will then re-assess the clinical and economic evidence to inform a final decision on routine use of the medicine in NHS Scotland.

Conclusions. The new pathway for ultra-orphan medicines will allow further evidence on their longer-term clinical benefits to be collected before a final decision on routine use. This approach reflects the current direction of travel in medicines regulation, by making medicines that address an unmet need available to patients at an earlier stage of development.

VP77 Extrapolating ICERs At Different Discount Rates

Conor Teljeur (cteljeur@hiqa.ie) and Máirín Ryan

Introduction. Applicability of incremental cost-effectiveness ratios from another jurisdiction is often affected by a different local discount rate, creating uncertainty about the ICER using the local discount rate. The ICER is sometimes reported at additional discount rates in the sensitivity analysis. We aimed to investigate the extent to which an ICER can be predicted at a given non-differential discount rate if estimates are available for at least two discount rates.

Methods. We used six previously published economic models representing analyses with a range of time horizons and ICERs calculated at discount rates from 1% to 8%. A simulation exercise was applied whereby the ICER at a discount rate selected from the range 2% to 5% was calculated based on ICERs provided at two or three randomly selected discount rates. With two discount rates a linear model was used to predict the ICER at the selected rate. For three discount rates an exponential model was used. Error between the predicted and actual ICER was calculated as the absolute difference divided by the actual ICER.

Results. For four of the models, ICERs could be well predicted by a linear model (i.e., with two points), with average errors of less than 5%. For the final two models the error was substantial with a linear model but substantially improved to under 15% with an exponential model (i.e., with three data points). The two models with a poor fit to a linear model assessed childhood vaccination programmes over a lifetime horizon.

Conclusions. For studies with a relatively short time-horizon, or where the majority of costs and benefits accrue in the short-term, a simple linear extrapolation can facilitate calculation of the ICER at a discount rate other than those reported. With longer time horizons, a third data point facilitates more reliably extrapolation of ICERs at desired discount rates.

VP82 Impact of Evidence Synthesis Methods on Outcome of Economic Evaluation

Claire Gorry (cgorry@stjames.ie), Joy Leahy, Felicity Lamrock, Cathal Walsh, Arthur White, Michael Barry and Laura McCullagh

Introduction. Evidence synthesis (ES) is often required for economic evaluation (EE) of pharmaceuticals. Commonly used methods are based on the assumption of proportional hazards in trial data, using the hazard ratio (HR). Alternative methods for ES are increasingly used in EE, in situations where the pattern of hazards in the trial data indicates that the proportional hazards assumption may be violated. The impact of these methodological choices on model outcomes is explored.

Methods. A network of trials of BRAF-targeted treatments for advanced melanoma, derived using a systematic review of the literature, is chosen for the study. Guyot's method is used to create individual-patient Kaplan-Meier (K-M) data from published survival curves. Log-cumulative hazard plots and Schoenfeld residuals are derived to examine patterns in hazards within the trial data. All analyses are conducted in R version 3.5.0©. Three alternative methods for ES are tested: 1) Network meta-analysis (NMA) based on published HRs and the assumption of proportional hazards. 2) NMA using fractional polynomials (FP) based on digitised K-M data, allowing the relaxation of the proportional hazards assumption. 3) NMA using an accelerated failure time (AFT) model based on digitised K-M data, allowing the relaxation of the proportional hazards assumption. The derived estimates of relative efficacy from each method are applied in a partitioned survival cost-effectiveness model programmed in Microsoft Excel™.

https://doi.org/10.1017/S0266462319003301 Published online by Cambridge University Press