life costs with voriconazole and a good estimate of clinical response and survival rates.

THE COST-EFFECTIVENESS OF A MENINGOCOCCAL SEROGROUP C CONJUGATE VACCINE IN GERMANY

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OBJECTIVES: Routine meningitis C (MenC) vaccination to individuals <18 years has been adopted in the UK since 1999 but is not yet available in Germany. Our aim was to estimate the costs and economic consequences of a routine MenC vaccination programme in Germany for children aged up to 10 years versus no vaccination. A secondary analysis considered a catch-up initiative for individuals aged 11 to 19. **METHODS:** A published cohort simulation model was adapted. Data to populate the model was obtained from published sources and official statistics. Incidence, mortality, and vaccine efficacy were estimated. Costs included the cost of the vaccination, inpatient management, insurance (benefit) payments to parents, and long-term disabilities. Costs were divided by effectiveness (life years gained) to estimate cost per life year gained. Population estimates were applied to consider the total cost of vaccination. Selecting credible data ranges and statistical distributions, a probabilistic sensitivity analysis was performed on ultra-sensitive parameters to evaluate the effects of multivariate uncertainty and generate 95% confidence limits. **RESULTS:** The annual cost of the vaccination programme was estimated to be €27.2 m, increasing to €59.7 m when factoring in the catch-up cohort. Managing infections and long-term costs were estimated to fall by €0.4 m and €0.6 m, respectively. Routine vaccination was estimated to avoid 6 deaths per year, increasing to 12 deaths avoided including catch-up. Findings were sensitive to disease incidence, vaccine efficacy, mortality and an incidence inflator for under-reporting. Cost-effectiveness was estimated at €64,203 (95% CI: 48,502–89,246) per life year gained for the primary analysis and €64,865 (51,130—86,412) when including the catch-up initiative. **CONCLUSIONS:** Our results demonstrate a reasonable level of cost-effectiveness for both vaccination strategies, with a relatively tractable overall impact on the wider health care system. Results are broadly similar to those reported in economic evaluations in other countries.

COST-UTILITY ANALYSIS OF TREATMENT ALTERNATIVES IN PATIENTS WITH HBEAG POSITIVE CHRONIC HEPATITIS B

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OBJECTIVES: Antiviral therapy remains an important treatment strategy for chronic hepatitis B (CHB) in China. However, multiple antiviral strategies—interferon, lamivudine, adefovir, and their sequential use—have caused difficulties for health decision-makers in selecting cost-effective treatments, given their high prices and long-term interventions. This study assessed cost-effectiveness of current available treatment alternatives for patients with CHB in China. **METHODS:** A cost-utility analysis was conducted from the Chinese health care-sector perspective. We developed a decision-analytic model to simulate a 1-year disease progression. Markov model was used to simulate lifetime outcomes, based on 1-year results. The model was validated

through discussion with leading hepatologists in China. Seven treatment alternatives, including no antiviral treatment, were considered for patients with HBeAg-positive CHB. The data on disease transition probabilities were primarily obtained from the randomized trials and meta-analyses, and validated by the clinician expert's panel. The data on utility of different diseases states were derived from a published study on Chinese patients. The resources use was obtained from a literature, and adjusted based on the expert panel's recommendations. The unit prices of resources 2006 were obtained from national and provincial registries. The costs were presented in US dollars. A rate of 5% was used to discount the costs. **RESULTS:** The base-case analysis showed that, of these seven treatment options, no antiviral therapy was dominated by all the antiviral treatment options. Interferon-adefovir sequential use dominated all the other alterative antiviral treatments, with US$562.3 per QALY gained (US$15215.8 for 27 QALYs). When the transition probability of HBeAg seroconversion in patients using adefovir was less than 0.157, and that of relapse rate higher than 0.032, lamivudine-adefovir strategy would be the dominant one. **CONCLUSIONS:** Interferon-adefovir appeared to be the most cost-effective strategies for CHB in China. However, clinical effects of adefovir might affect the robustness of results.

COST-EFFECTIVENESS OF MASS VACCINATION WITH A ROTAVIRUS VACCINE IN THE NETHERLANDS

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OBJECTIVES: To estimate the cost-effectiveness of mass-vaccination with an oral rotavirus vaccine (RIX4414) compared to no vaccination from a societal perspective. **METHODS:** A Markov model was constructed for a hypothetical birth cohort, comparing two treatment arms, one receiving the vaccine, the other receiving standard care. In the model, seasonality of the virus, protection from breastfeeding, and nosocomial infections are taken into account. Direct medical costs and costs due to loss of productivity (of the parents) were estimated. Effects were expressed as the number of hospitalisations, GP visits, deaths, nosocomial infections, and the quality adjusted life years (QALYs) over a lifetime horizon. Costs and QALYs were combined into an incremental cost-effectiveness ratio (ICER). Data for the model were obtained from published local data on incidence of rotavirus infection and consequential health care consumption and from clinical studies measuring the effectiveness of the vaccine. Costs and effects were discounted at 4% and 1.5%, respectively. A probabilistic sensitivity analysis was performed. **RESULTS:** Mass-vaccination with RIX4414 shows a reduction in the number of GP consultations by 95.8%. Hospitalisations, nosocomial infections and deaths were reduced with 100%. This results in savings of €8.9 million for direct medical costs and of approximately €1 million for productivity costs, whereas the costs of vaccination are estimated at €16.5 million. Furthermore, 270 QALYs are gained, yielding an ICER of approximately €24,000. Sensitivity analysis shows that the probability for nosocomial infection and the probability of hospitalisation have the largest effect on the outcome. However, the prioritisation of the alternatives does not alter. **CONCLUSIONS:** Mass-vaccination against rotavirus disease with RIX4414 may be considered economically attractive from a societal perspective, given the favourable balance between costs and effects, especially considering the very low health care utilisation in the Netherlands compared to other European countries.