CONCLUSIONS: Infant universal vaccination with PCV-7 has intermediate cost-effectiveness, therefore, regional policies are warranted, according to local epidemiology of the disease.

ECONOMIC EVALUATION OF VORICONAZOLE IN THE TREATMENT OF INVASIVE ASPERGILLOSIS IN GERMANY

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OBJECTIVES: To assess the costs and cost-effectiveness of voriconazole in comparison to conventional amphotericin B for the treatment of invasive aspergillosis in Germany. METHODS: The cost-effectiveness of voriconazole in comparison to conventional amphotericin B was evaluated with a life-time Markov model, focusing on the long-term survival of patients treated for invasive aspergillosis. Long term survival was extrapolated from survival after 12 weeks of treatment, obtained from a large randomized aspergillosis study (Herbrecht et al. NEJM, 2002). Information on medical resource consumption, treatment pathways and switch rates were obtained from both this randomized study and an expert committee. Probabilistic analysis was used to evaluate the cost-effectiveness of voriconazole compared to amphotericin B, and was expressed by the incremental costs per life weeks gained. The evaluation was performed from an insurance perspective (both inpatient and outpatient costs) and hospital perspective (direct costs, inpatient). RESULTS: The mean survival of patients treated with voriconazole was 174.4 life weeks (95%CI 159.4; 191.3), compared to 119.4 life weeks (95%CI 106.4; 132.3) for amphotericin B. With voriconazole, the total mean costs for treating invasive aspergillosis per patient were 31,765€ (95%CI 24,094€; 39,383€) compared to 28,569€ for amphotericin B (95%CI 22,674€; 36,860€) from the insurance perspective. Total inpatient costs were approximately 85% of the total mean costs of treating aspergillosis infection. The corresponding incremental cost-effectiveness ratio was 18€ per life year gained, indicating a >999% probability of being cost-effective for a willingness-to-pay threshold of 20,000€ per life year gained. CONCLUSIONS: In the treatment of invasive aspergillosis, voriconazole is cost-effective in comparison to amphotericin B. Inpatient costs had been represented within the current German reimbursement system (per diem charges), but are higher than those currently reimbursed within the newly introduced German DRG system.

ACUTE ROTAVIRUS GASTROENTERITIS: BURDEN OF DISEASE AND COST OF ILLNESS AMONG YOUNG CHILDREN IN GERMANY

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OBJECTIVES: Rotavirus (RV) infections are probably the most important cause of severe acute gastroenteritis (AGE) in infants and children up to 4 years of age. Evidence on the overall burden of RV-AGE in Germany is limited, especially due to under-reporting. The objective is to estimate the burden of disease and cost-of-illness of RV-AGE in Germany. METHODS: Data on incidence of community-acquired and nosocomial infections as well as related health care utilization were derived from a systematic literature review and official statistics. Population data and prices were taken from official statistics and price compendiums. A payers’ (sickness funds) perspective was taken. Costs include out- and inpatient care as well as work loss by parents (considering their labour force participation). The latter is paid by sickness funds in Germany (i.e. “childcare benefits”). Price level is that of 2002. RESULTS: Community-acquired RV-AGE requiring outpatient care occurs each year in nearly 120,000 children aged 0–48 months. 6.1% of those cases require hospitalisation resulting in about 7,350 inpatient cases and 38,250 inpatient days. Nosocomial infections result in 6,900 additional inpatient days. Outpatient costs amount to 8.5€m p.a. and account for 27.4% of overall costs. Inpatient care costs about 15.9€m (51.2%). Childcare benefits amount to 6.6€m (21.4%). Overall costs to payers are 31€m p.a. CONCLUSIONS: Rotavirus causes severe acute gastroenteritis among young children. The overall burden of rotavirus gastroenteritis is considerable and even underestimated as not all children are presented to physicians and stool samples are not analysed on a regular basis. Furthermore, rotavirus causes considerable costs to health care payers, especially due to hospitalizations and nosocomial infections.