

costs were assigned using standard costing methods (converted to 2001 US\$). Due to the nearly threefold between-continent cost difference, data were analyzed separately. Multivariate methods were used to adjust both cost and effectiveness for baseline variables. Probabilities of treatment benefits were estimated using bootstrap methods. **RESULTS:** The adjusted incremental total cost of treatment was \$932 and \$484 lower for linezolid; the adjusted incremental effectiveness was 5.8% and 6.4% higher with linezolid when missing effectiveness was scored as failures, or 12.3% and 4.3% higher when missing effectiveness was imputed, for the European and South American patients, respectively; only the 12.3% increment reached statistical significance. The probability for the linezolid group having both lower cost and superior effectiveness was 65.3% and 86.9% when missing effectiveness was scored as failures, or 75.2% and 80.7% when missing effectiveness was imputed, for the European and South American patients, respectively. **CONCLUSIONS:** The results suggest that linezolid is likely to represent good value for money compared to teicoplanin for the treatment of serious gram-positive infections.

**PIN25**

#### **A COST-EFFECTIVENESS ANALYSIS OF BACTERIAL ENDOCARDITIS PROPHYLAXIS FOR FEBRILE CHILDREN WITH CARDIAC LESIONS**

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**OBJECTIVES:** To prevent bacterial endocarditis (BE), the American Heart Association recommends antibiotics prior to urinary catheterization (UC) in the presence of known urinary tract infection (UTI). In young children who undergo evaluation for fever, the presence of UTI is unknown prior to UC. It is the objective of this study to determine the cost-effectiveness of BE prophylaxis prior to UC in febrile children aged 0–24 months with moderate-risk cardiac lesions who present to the emergency department. **METHODS:** Taking a societal perspective, we determined the cost-effectiveness of BE prophylaxis in terms of 1) quality-adjusted life years (QALYs); and 2) bacterial endocarditis incidence. Probabilities were derived from the medical literature. Costs were derived from national sources in US dollars for the reference year 2000, using a discount rate of 3%. Sensitivity analysis was conducted by varying the individual costs and probabilities. **RESULTS:** When antibiotic-associated deaths are excluded, BE prophylaxis is more effective and more costly than no prophylaxis. Prophylaxis prevents seven cases of BE per 1 million children treated, with an incremental effectiveness of 0.00005 QALYs. The incremental cost-effectiveness ratio of amoxicillin is \$10 million per QALY gained and \$72 million per case prevented. For vancomycin, it is \$13 million per QALY gained and \$95 million per case prevented. When antibiotic-associated

deaths are included, the no prophylaxis strategy is more effective and less costly than the prophylaxis strategy. The results are otherwise robust to sensitivity analysis. **CONCLUSIONS:** In the emergency department, BE prophylaxis prior to UC in febrile children aged 0–24 months with moderate-risk cardiac lesions is not cost-effective. The results of this analysis do not support the use of BE prophylaxis in these children.

**PIN26**

#### **LIFETIME GOVERNMENTAL COSTS OF SEVERE SEQUELAE OF PNEUMOCOCCAL MENINGITIS IN A WELFARE STATE**

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Paediatric meningitis is a major, life threatening disease resulting in severe, lifetime sequelae. **OBJECTIVE:** To estimate the lifetime cost to the New Zealand Government of severe disability ensuing from paediatric pneumococcal meningitis. **METHODS:** “Severe disability” was defined as ‘disability sufficient to preclude enrolment at a mainstream UK school.’ The epidemiology of paediatric disability was obtained from a recent UK study of survivors of pneumococcal meningitis, and validated using Auckland data. Long-term costs were estimated from age-specific cross-sectional data obtained from the Ministries of Education, Health and Social Development and 30 provider agencies. Representative healthcare costs were obtained for the following services: home/carer support packages; audiology, hearing devices and cochlear implants for severe or profound bilateral sensorineural hearing loss; assessment and rehabilitation services for cerebral palsy and epilepsy; orthotics services for cerebral palsy; residential facilities; specialised equipment; housing modifications; GP consultations; pharmaceuticals; hospital costs for epilepsy and corrective surgery for physical disabilities. Other costs comprised disability allowances plus income and vocational support. The cost from birth to age 64 years was obtained by multiplication of 3 matrices in 5-year age bands: weighted mean annual costs across all categories of expenditure; survival (from life tables) and an age-specific discounting factor (at 5% discount rate). **RESULTS:** The Government cost to age 64 of severe disability resulting from pneumococcal meningitis contracted in the first year of life is estimated at \$NZ0.88M (\$US0.44M) discounted to present value at 5% per annum (\$NZ2.8M undiscounted). This cost is sensitive to the distribution of disability by type and severity. The main costs are: individual home and carer support (28%); education (23%); residential care (18%); income support (13%); environmental support (10%); and bilateral severe or profound hearing loss (7%). **CONCLUSIONS:** Lifetime costs to the Government associated with severe disability resulting from paediatric pneumococcal meningitis are substantial.