recommendation on health care spending per QALY gained, PCV13 NIP in Czech Republic can be considered cost-effective.

PIN69

ECONOMIC EVALUATION OF FIDAXOMICIN FOR THE TREATMENT OF CLOSTRIDIUM DIFFICILE INFECTIONS (CDI) ALSO KNOWN AS C. DIFFICILE-ASSOCIATED DIARRHOEA (CDAD) IN IRELAND

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OBJECTIVES: Fidaxomicin is the first in a new class of macrocylic antibiotics, indicated in adults for the treatment of Clostridium difficile infections (CDI) also known as C. difficile-associated diarrhoea (CDAD). The study objective was to perform a cost-utility analysis of fidaxomicin for the treatment of CDI compared to oral metronidazole (used to treat initial non-severe CDI and first non-severe recurrence) and oral vancomycin (used to treat severe CDI and any non-severe recurrence beyond the first one). **METHODS:** A Markov model was used to determine the cost-utility of fidaxomicin in the treatment of all adult CDI patients (base case), patients with severe CDI, and patients with initial CDI recurrences, respectively. The cycle length was 10 days. The patient enters the model in the CDI health state and is treated either with fidaxomicin, oral metronidazole or vancomycin for 10 days. The time horizon was one-year. Deterministic and probabilistic sensitivity analyses were performed. Health state utilities were derived from the literature. The perspective was that of the Irish Health Service Executive (HSE). **RESULTS:** In the base case, fidaxomicin was dominant compared to current standard of care, resulting in cost savings of €2,904 and an incremental QALY gain of 0.031. The main drivers of cost-effectiveness were the reduction in rate of recurrence in patients treated with fidaxomicin and the cost of hospitalisation. Fidaxomicin was also found to be dominant for all patient subgroups. The ICERs were highly sensitive to recurrence rates. The probability of the cost-effectiveness of fidaxomicin in all CDI patients at a willingness to pay threshold of €45,000 per QALY gained was estimated to be approx. 82%. **CONCLUSIONS:** Fidaxomicin was dominant compared to current standard of care with an approx. 82% probability of being cost-effective in all CDI patients at a willingness to pay threshold of €45,000 per QALY gained.

PIN70

A UK CASE STUDY OF SOCIETAL AND HERD-EFFECT IMPACT OF UNIVERSAL MASS INFLUENZA VACCINATION IN THE UNITED KINGDOM

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OBJECTIVES: To demonstrate the impact of influenza vaccination in currently non-recommended populations in the UK. To understand critical elements of influenza infection (herd-effect and productivity losses) and management of disease. Management includes direct medical, non-medical and indirect resources. **METHODS:** A multicohort, static, one-year Markov-model was constructed. Universal influenza mass vaccination of healthy individuals ≥6 months to ≤64 years was applied, using either trivalent (TIV) or quadrivalent (QIV) influenza vaccines. Current vaccination coverage rates for high risk persons were utilized as a proxy. Vaccine efficacy data were derived from Cochrane Databases (TIV) and meta-analyses (QIV). The impact of herd-effect was evaluated by two different estimates from published literature, providing a range of results. A societal perspective was adopted and 2010 was the cost reference year. **RESULTS:** Using the average influenza-B circulation and vaccine matching data of 2000 to 2010, between 71,000-82,000 additional cases will be prevented with QIV versus TIV in one influenza season. QIV is anticipated to prevent more medical visits, complications, and hospitalisations (15,000-17,000); (8,000-9,300) and (889-1,044), respectively. QIV programme costs are higher due to acquisition costs compared to TIV, however influenza treatment and management costs are lower due to fewer cases/complications for direct medical, non-medical and indirect categories (absenteeism/presenteeism), (savings: £4,800,000-£5,700,000); (savings: £215,000-£253,000); (savings: £22,400,000-£26,400,000), respectively. In addition, future productivity losses caused by premature mortality are also minimized with maximal effect with QIV rather than TIV (savings: £5,100,000-£6,700,000). **CONCLUSIONS:** Herd-effect is a well understood and appreciated benefit of vaccinating children and mass vaccination within a population. This model suggests that there are vast benefits in universal mass vaccination of healthy persons in the UK with QIV instead of TIV, due to greater health-related benefits and lower treatment-related costs. However, vaccine acquisition costs need to be considered.

PIN71

THE ECONOMIC ASSESSMENT OF AN ENVIRONMENTAL INTERVENTION: DISCRETE DEPLOYMENT OF COPPER FOR INFECTION CONTROL IN ICUS

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OBJECTIVES: Health Economics evaluations are typically applied to medications or surgery costs, but this unique study has investigated the economic benefits of discrete deployment of antimicrobial copper alloy touch surfaces in ICUs. Copper/copper alloy surfaces have been shown to act as an adjunct to standard infection control practices in diverse clinical settings, continuously reducing contamination by over 90%. A study by Salgado in 2013 investigated the use of copper surfaces in ICUs and reported a 58% reduction in hospital acquired infections. This study investigates the cost-effectiveness of this intervention. **METHODS:** Following an extensive literature review and use of expert opinion a number of factors have been considered in this evaluation. These are the component costs of the items used in the ICU, the cost of and extra day in bed due to an infection, baseline infection rates and risk reduction of copper items. The model is based on a single room configuration in an intensive care unit with 20 beds in the UK using 6 critical items - bed rails, overbed tray table, chair, call button, data device and IV pole. The model has been created to show the economic impact of an environmental intervention. **RESULTS:** The model predicts the cost of replacing key, frequently-touched surfaces in a 20-bed UK ICU with copper equivalents will be recouped in less than two months. Over 5 years there were 325 fewer infections in the copper arm at a cost per QALY of £262.84. **CONCLUSIONS:** The investigation allowed the derivation of a spreadsheet-based model that uses the best current published information and shows the rapid ROI of a copper intervention. It also calculates the impact on bed days and quality-adjusted life years (QALY). The model is simple, transparent to those with knowledge of spreadsheets, and allows adaptation to specific local settings.

PIN72

COST-EFFECTIVENESS OF A 13-VALENT CONJUGATE PNEUMOCOCCAL VACCINATION PROGRAM IN COPD PATIENTS AGED ≥50 YEARS IN SPAIN: PRELIMINARY RESULTS

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OBJECTIVES: Patients with chronic obstructive pulmonary disease (COPD) are at risk of pneumococcal infection. A 13-valent pneumococcal-conjugate vaccine (PCV13) has recently been approved for adult protection against *S. pneumoniae*. This study estimated the clinical and economic consequences of vaccinating COPD patients aged ≥50 years with PCV13 compared to current vaccination recommendations using a 23-valent pneumococcal-polysaccharide vaccine, from the Spanish Healthcare System perspective. **METHODS:** A microsimulation model with a Markov process accounting for risks and costs for invasive pneumococcal disease (IPD) and all-cause nonbacteremic pneumonia (NBP) was developed. Prevalence, mortality rates, vaccination and serotype coverage, and vaccination and disease-related costs (€2013) were based on published data. Vaccines effectiveness was modified by a waning effect over time. Herd-immunity and revaccination were not considered. Outcomes and costs (both discounted at 3%/year) were simulated 100 times with, 1.6 million COPD patients per simulation. Outcomes were pneumococcal cases averted and incremental cost–effectiveness ratio (ICER) in terms of cost per life-year gained (LYG). Sensitivity analyses were performed modifying the time horizon, discount rate and vaccination coverage. **RESULTS:** Over a 5-year period, the use of PCV13 vs current vaccination strategy in adult COPD subjects would prevent 529 IPD cases, 6,329 inpatient-NBP cases, and 697 outpatient-NBP cases. Additionally, 231 IPD and 148 inpatient-NBP related deaths would be averted. The ICER was €24,557/LYG for PCV13 vs current vaccination strategy. In sensitivity analyses, ICER ranged from €26,986/LYG (when changing discount rate from 3% to 5%) to €7,661/LYG (when changing vaccination coverage from 80% to 66%). Using a lifetime horizon 1,271 IPD cases, 10,294 inpatient-NBP cases, and 2,072 outpatient-NBP cases would be prevented, with an ICER of €5,030/LYG. **CONCLUSIONS:** At a willingness-to-pay of €30,000/LYG, PCV13 vaccination in COPD patients aged ≥50 years in Spain is a cost-effective strategy compared to current vaccination recommendations under both 5-year and lifetime time horizons.

PIN73

LINEZOLID FOR THE TREATMENT OF PATIENTS WITH CONFIRMED MRSA NOSOCOMIAL PNEUMONIA IN NANJING, CHINA: A COST EFFECTIVE ALTERNATIVE TO VANCOMYCIN

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OBJECTIVES: Vancomycin has been the treatment of choice for several years while linezolid is a relatively new alternative in China. Although clinical superiority of linezolid was demonstrated in a recent head-to-head clinical study, economic evaluation comparing the two treatments provides additional useful decision making information. This study aimed to compare the cost-effectiveness of linezolid versus vancomycin in treating confirmed MRSA NP from a payer's perspective in Nanjing. **METHODS:** A cost-effectiveness model primarily driven by the head-to-head clinical data (Wunderink, CID: 2012), was adapted with local published data and expert opinion on resource use and unit costs. The model structure and assumptions were verified to reflect local clinical practice. Both linezolid and vancomycin arms were assumed to have same life expectancy in full health upon discharge. The base case analysis considered 10-day treatment duration for both treatments. Scenario analyses were conducted by varying treatment duration, per day total costs in ICU and general ward, drug acquisition costs, and including costs for managing key adverse events. All costs were reported in 2012 Chinese RMB. **RESULTS:** A higher treatment success rate by 2.7% was predicted for linezolid. Both treatment arms were estimated to have very similar average total costs in the region of RMB 78,800 with the key cost drivers being drug acquisition costs and ICU per day total cost. The ICER for linezolid was RMB 163 for each additional successfully treated patient. Dominance of linezolid attributed to greater treatment success but lower total cost was observed in most of the scenario analyses. The highest ICER was RMB 31,663 in the scenario where the acquisition cost of vancomycin reduced by 20%. **CONCLUSIONS:** Given the estimated low ICERs with dominance in most of the scenario analyses, linezolid can be considered a cost effective option compared to vancomycin in managing confirmed MRSA NP in Nanjing.

PIN74

A COST-EFFECTIVENESS ANALYSIS OF LINEZOLID VERSUS VANCOMYCIN FOR VENTILATOR-ASSOCIATED PNEUMONIA PATIENTS IN COSTA RICA

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OBJECTIVES: Ventilator-associated pneumonia (VAP) is the most common nosocomial infection in the intensive care unit (ICU). It's associated with significant morbidity, increasing the ICU and hospital length of stay (LOS), and raising overall costs. Literature suggests that costs could be reduced using the most efficient empiric