(30–90%) to all oral antibiotics. **CONCLUSIONS:** TMP-SMX should no longer be recommended for empiric treatment of this disease and should be replaced by nitrofurantoin. The decrease in resistance to amoxycillin + clavulanic acid observed for E. coli shows that interventions designed to improve antibiotic prescribing may play a valuable role in the global effort to combat antibiotic resistance. Furthermore, the data presented illustrates that longitudinal surveillance of antibiotic resistance should be an integral component in the formulation of antibacterial pharmacopolicy.

INFECTION—Cost Studies

PIN8

PROSPECTIVE STUDY ON ACUTE LOWER RESPIRATORY TRACT INFECTIONS IN GERMAN CHILDREN YOUNGER THAN 3 YEARS (PRI.DE)—ECONOMIC IMPACT OF HOSPITALIZED CASES

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OBJECTIVES: To calculate the average cost per hospitalized patient (case) with lower respiratory tract infection (LRTI) and to estimate the economic impact of LRTI due to RSV, parainfluenza and influenza viruses in Germany. Costs were evaluated from the perspectives of third party payer, parents and society. **METHODS:** This economic analysis is part of the PRI.DE study, which is a prospective, multicenter, population-based epidemiological study. It was carried out over 2 years (1999–2001) on the impact of LRTI in children aged 0 to 36 months in Germany. Inclusion of children with pneumonia, bronchitis, bronchiolitis, croup and apnea. Nasopharyngeal secretions were tested for RSV, parainfluenza-(PIV), and influenza viruses (IV) by Hexaplex PCR (Prodesse, USA). Medical services consumed were generated by chart ion. Data regarding parental expenses were collected via telephone interviews within 4 weeks after hospitalization by using standardized questionnaires. **RESULTS:** A total of 1035 evaluable cases with community-acquired infections treated as inpatients enrolled in 6 hospitals were analysed. Total costs per hospitalized community-acquired LRTI case amount to €2579 (SD 1874). Main cost driver is direct medical cost (91%). Mean hospital length of stay is 7.4 days (SD 6.5). For children under 1 year (n = 596), total costs amount to €2827 (SD 2213), whereas the costs for older children (1 to 3 years; n = 439) are lower (€2242; SD 1132). Total cost of LRTI caused by RSV (n = 350) is €2772 (SD 1603), caused by PIV (n = 74) €2374 (SD 1644) and by IV (n = 35) €2596 (SD 1214). Treatment of LRTI caused by other pathogens costs on average €2482 (SD 2131). Annual total expenditures due to hospitalized cases of community-acquired LRTI amount to €158 million. **CONCLUSIONS:** LRTI in children up to the age of three years cause a considerable economic burden to the health care system in Germany.

PIN9

COST-EFFECTIVENESS OF TWO DIFFERENT VACCINATION STRATEGIES FOR THE PREVENTION OF MENINGOCOCCAL C DISEASE IN PORTUGAL

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OBJECTIVE: Until 2001 serotype prevalence of meningococcal disease in Portugal was unknown. Following the first release of data it was found that a high prevalence of type C disease existed in Portugal (>50% all serotypes). Several conjugated vaccines are currently available, all having several possible vaccination schemes. This study estimates the cost-effectiveness of two different vaccination schemes using the vaccine MeningiteC®. **METHODS:** Using an Excel-based model we estimated the impact of vaccinating 100,000 children, using alternatively 2 different vaccination schemes (1 vs 3 doses). Disease prevalence was assumed as the one found during the year previous to the introduction of the vaccine. The vaccine was assumed as having a 92% efficacy for 5 years, with no herd immunity. Costs were obtained from official sources, when available. The estimation of resources for disease and sequelae treatment was obtained by consulting several clinical experts. Costs were determined in 2002 Euros and a discount rate of 5% was used, as required by Portuguese guidelines. **RESULTS:** For each 100.000 children vaccinated, using a 3-dose scheme will result in 345,36 Life-Years Gained (LYG), with cost-effectiveness ratios of €29.575/LYG—societal, and €11.272/LYG—3rd payer, while the vaccination with only one dose will result in 297,58 LYG, with ratios of €10.806/LYG and €3.768/LYG, respectively. The results found are sensitive to vaccine price, epidemiology of disease and mortality rates. Resources consumed due to disease and sequelae did not influence final results considerably. **CONCLUSION:** Use of meningococcal C vaccine in Portugal is expected to be cost-effective provided that no substantial change in the prevalence of the disease occurs. Decision to use 1 or 3 doses will depend on both society's and parent's willingness to pay since incremental cost-effectiveness ratios for the 3 vs 1 dose scheme are considerably high.

PIN10

A COST CONSEQUENCE ON CONCOMITANT DRUG USE DURING HCV THERAPY IN MANAGED CARE PATIENTS IN THE UNITED STATES

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OBJECTIVE: The purpose of this study was to examine concomitant medications use and associated costs in hepatitis-C (HCV) patients before and after HCV treatment in a large managed care population. **METHODS:** Continuously benefit-eligible patients were identified from a managed care database of integrated medical and pharmacy claims (~10 million lives). A total of 1812 patients with a new HCV diagnosis between June 1, 2001 and December 31, 2001, who had no HCV-related medical and prescription claims in a 12-month pre-diagnosis period and had up to 12 months of medical follow-up were included in the study. Concomitant medications included all drugs prescribed for treatment of anemia, neutropenia, depression, and sleeping disorders that were dispensed between the first and last HCV prescription fill date. **RESULTS:** The study subject median age was 46 years and 62% were male. The HCV treatment rate was 17% (314 treated vs 1498 untreated) with a mean of 2.6 months of elapsed time between HCV diagnosis and initial HCV prescription claim. Concomitant medication use was lower in the pre-diagnosis period than in the follow-up period for anemia agents (3% vs. 9%, $p = 0.004$), neutropenia agents (1% vs. 3%, $p = 0.05$), antidepressants (18% vs. 31%, $p < 0.0001$), non-barbiturate sedatives (8% vs. 21%, $p < 0.0001$), and overall concomitant use (23% vs. 45%, $p < 0.0001$). Consequently, mean cost associated with concomitant drug use was higher during the HCV therapy as compared to the pre-diagnosis period ($761 vs. $457, $p < 0.0001$). **CONCLUSIONS:** In this sample of HCV treated patients, 45% were prescribed concomitant medications for treatment of HCV-related conditions during the follow-up period compared to only 23% in the pre-diagnosis period. This pattern suggests a cost consequence on concomitant drug use during HCV therapy. More research is needed to better understand the association between these concomitant agents and cost implications of HCV treatment in this patient population.

PIN11

ABACAVIR HYPERSENSITIVITY: IS PRE-PRESCRIPTION GENOTYPING COST-EFFECTIVE?

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OBJECTIVES: Abacavir causes hypersensitivity reactions (HSRs) in about 4% of HIV patients. HSRs can be serious, result in hospitalisations and incur significant Health care expense. Recent evidence suggests that the presence of HLA-B57 increases the likelihood of occurrence of HSRs. The aim of this analysis is to model the cost-effectiveness of genotyping, which costs £30 per patient, as a therapeutic strategy to avoid abacavir—induced hypersensitivity reactions. **METHODS:** As HSRs occur within the first few weeks of therapy, a 6-month time horizon was chosen for the analysis that adopted a UK National Health Service perspective. Data relating to time of onset and prevalence of HSRs were obtained from published sources. An analysis of test characteristics (sensitivity and specificity) was performed by pooling data from two previously published studies with data of our own. The use of Health care resources, and associated costs of treating HSRs were collected from the records of 16 patients. The cost and selection of substitutes for abacavir (alternative HAART regimens), in the case of positive testing or occurrence of HSR, were considered in the analysis but assumed to be equally efficacious. A probabilistic decision analytic model (comparing testing versus no testing) was formulated and Monte Carlo simulations performed. **RESULTS:** When abacavir is used as salvage therapy, genotyping is cost saving. When used in treatment naïve patients or for regimen simplification, the ICER of genotyping versus conventional "blind" therapy ranged from being cost saving to £4000 per HSR avoided, depending on the cost of alternative regimen: the more expensive the alternative, the less cost effective the test is. **CONCLUSIONS:** Pharmacogenetic testing to prevent abacavir—induced HSRs appears to be a cost effective use of Health care resources. A recommendation of routine adoption of testing for patients eligible for abacavir therapy may be appropriate.

PIN12

THE COST-EFFECTIVENESS ANALYSIS OF PEGINTERFERON ALFA-2A AND RIBAVIRIN VERSUS INTERFERON ALFA-2B AND RIBAVIRIN IN CHRONIC HEPATITIS C IN POLAND

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OBJECTIVE: To estimate the cost-effectiveness of peginterferon alfa-2a 180 mcg/week and ribavirin 1000 mg/d (PegINF + R) relative to interferon alfa-2b 3 mln units thrice weekly and ribavirin 1000 mg/d (INF + R) in chronic hepatitis C patients without preexisting cirrhosis. **METHODS:** A Markov model was developed to project lifelong clinical and economic outcomes in 45-year-old patients based on published in literature transition probabilities and utility values and Polish data on health care resource utilisation and unit cost. The duration of treatment was 48 weeks and 24 weeks respectively in patients with HCVgenotype-1 (group I) and non-1 (group II). Predictability test was performed after 12 weeks and 24 weeks in those receiving PegINF + R and INF + R respectively. Effectiveness was expressed in LY and QALY. Only direct medical costs were analysed from Health care payer's perspective. The cost-effectiveness threshold was calculated on the basis of 1-year haemodialysis treatment cost (60,000 PLN, €1 = 4 PLN; in 2003). Sensitivity analyses were performed to test the robustness of the model. **RESULTS:** PegINF + R relative to INF + R increased life expectancy by 0.78 LY or 0.46 QALY in group I and 1.17 LY or 0.78 QALY in group II. The cost/patient treated with PegINF + R or INF + R was