Abstracts

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results are reported over a one-year period after reaching steady-state level of vaccination. Multiple probabilistic sensitivity analysis was performed to estimate the distribution of the cost difference between the two vaccines by running 5000 iterations with @Risk(r) software in Excel(r) (normal distributions for vaccine efficacy, uniform distributions for HPV typing and costs).

RESULTS: Multiple probabilistic sensitivity analysis showed an average annual cost difference of $9.3M (CDN) (95% CI: −$10M, +$43M) in favor of cross-protection over genital warts protection. Cross-protection provided additional cost saving with an 86.3% probability. An efficacy for additional cross protection of around 12% would achieve cost neutrality. The difference in cost was most sensitive to vaccine efficacy of cross-protection, the proportion of non-vaccine oncogenic HPV-types in CIN1, and the unit cost of treating CIN1. CONCLUSION: A vaccine with additional cross-protection of at least 12% is likely to offset the costs associated with the protection against genital warts in the Canadian health care system.

PCN16
COST DIVERSITY OF DRG BASED COLORECTAL CANCER THERAPIES IN HUNGARY
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OBJECTIVE: In Hungary, costs of anti-cancer treatments are covered by hospitals’ budget, and funds for therapy expenditures provided from the National Health Fund Administration, based on DRG accounts. The goal was to investigate the real cost of treatments, and assess a comparison of DRG based remittance and expenditures of therapies. METHODS: Cost analysis of CRC chemotherapy-protocols has been conducted from the perspective of Oncology Departments. Regimens of 5-fluorouracil/leukovorin, irinotecan, cetuximab, bevacizumab and oxaliplatin have been investigated, focusing on cost of medication, hospitalisation and total expenditure of protocols. RESULTS: Real expenditures of protocols were assessed. The range of drug related costs were USD$18.20–3085.80 as expenditures of hospitals. Total expenditures of chemotherapy-regimens have been assessed and compared to allocation of remittances from the National Health Fund Administration. The value of remittances have been found between USD$405.70 and USD$2875.20, depending on protocols. The gap analysis of drug expenditures and remittances has resulted in a wide range of USD$–347 to USD$1611. The ratio of drug related expenditures and total remittance of hospitals showed diversity from 5% to 107%. CONCLUSION: The analysis showed that fixed DRG values had not represented real expenditures of chemotherapies of CRC treatment. Remittances should have been validated regularly. Neither priority, nor incentive elements, have been found in protocols containing molecules with superior efficacy or improved safety. In general, Oncology Departments are motivated to use protocols, containing generic compounds with low expenditures and to achieve significant savings in hospitals’ budget.

WITHDRAWN

PCN17

WITHDRAWN

PCN18

A COST-EFFECTIVENESS ANALYSIS OF LAPATINIB AT A TERTIARY CANCER CENTER
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OBJECTIVE: As new agents become available for the treatment of diseases, there exists a need to evaluate the cost-effectiveness of the agents. This study calculates the cost-per-life-year saved and the budget impact of lapatinib, a new dual tyrosine inhibitor as part of the formulary evaluation process at a major tertiary cancer center. METHODS: A decision analytical model was developed to estimate the incremental cost-effectiveness of lapatinib for advanced breast cancer. The model estimates the incremental cost-effectiveness of two strategies: combination therapy of lapatinib with capecitabine compared to capecitabine alone. The outcome of interest was time to disease progression, based on randomized clinical trials (RCTs). Direct medical costs from the institutional perspective were utilized and were calculated for a one-year time period. One-way and two-way sensitivity analysis on the rate of disease progression for monotherapy and combination therapy was conducted. In addition, a budget impact model was also calculated for the institution. RESULTS: Based on outcome estimates from RCTs and the application of the institutional costs, the cost-per-life-year saved for lapatinib for treatment of advanced breast cancer was $108,300. One-way sensitivity analysis of the combination response (0–50%) indicated that lapatinib’s cost-effectiveness ratios ranged from $100,000 to $119,000 per life-year saved. Two-way sensitivity analysis indicated that the majority of the time monotherapy was more cost-effective. The lapatinib combination was only considered cost-effective, if the response rate of the monotherapy never exceeded 14.6%. The budget impact model, which incorporated both on-label and off-label usage of lapatinib, estimated that the institution will utilize about 10 million dollars worth of drugs annually, based on acquisition costs. CONCLUSION: Lapatinib appears to have similar cost-effectiveness in comparison with other targeted oncology agents. Post evaluation economic analysis will be conducted to determine how closely the economic model predicted the utilization of lapatinib at the institution.

PCN19

PCN20

COST ANALYSIS OF IMMUNOGLOBULIN PROPHYLAXIS IN CHRONIC LYMPHOCYTIC LEUKEMIA
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OBJECTIVE: Patients with chronic lymphocytic leukemia (CLL) are often treated with prophylactic intravenous immunoglobulin (IVIG) to reduce risk of infection, although increased survival has not been demonstrated with use. The objective of this study was to estimate direct medical costs of IVIG versus no prophylaxis over 12 months. METHODS: Costs were estimated from the government (Medicare) perspective when available, or calculated from the literature in 2007 US dollars. Assuming a regimen of 400mg/kg every four weeks for one year, 12 administrations for a 70kg patient was calculated using a reimbursement of $30 per 500mgs. Estimated resources costs were $24 per preparation and $144 per administration. Infections were considered minor, moderate, or severe and both costs and probabilities of infection were extracted from previous studies. Risk of any infection with IVIG use was 36% and with no prophylaxis, 56%. Reported infections per year among patients with 1+ infection was 1.4 with IVIG use and 2.25 infections with no prophylaxis. RESULTS: Under the described model, the total cost per year of prophylactic IVIG = $24,312 per patient. The weighted average cost per infection was $1688. The average weighted infection cost (AWIC) of minor infections = $12; moderate, AWIC = $96; and severe, AWIC = $2256. In comparison, total cost with no prophylaxis was $4500 per patient year. The weighted average cost of one infection with no prophylaxis = $2000. The AWIC of minor