OBJECTIVES: In oncology trials, it is common practice to offer patients the possibility to switch from their randomized treatment to an active intervention as disease progression. When patients switch to, and benefit from, active post-progression therapies which do not form part of the standard treatment pathway, a standard intention-to-treat (ITT) analysis may inaccurately estimate the "true" overall survival (OS) benefit of the active intervention. The purpose of the present study was to determine the budget impact of increasing the proportion of laparoscopic liver resections compared to open liver resections to oncologically equivalent patient outcomes when compared to open liver resection. Clinical research has demonstrated that laparoscopic liver resection for hepatocellular carcinoma or secondary colorectal metastases provides oncologically equivalent patient outcomes when compared to open liver resection, while also providing a statistically significant reduction in postoperative complications. Approximately 16% of all liver resections in Canada are laparoscopic liver resections. With a high rate of 16% of laparoscopic liver resections and a steady increase in the number of patients undergoing liver resections, healthcare environment hospitals face constrained budgets and it is critical to determine the impact of laparoscopic liver resection to increase procedure volume. This study was conducted to determine the budget impact of increasing the proportion of laparoscopic vs. open liver resection in a Canadian hospital. METHODS: We examined the budget impact of increasing the percentage of laparoscopic liver cases from 16% to 40%, while decreasing the number of open cases proportionally in a hospital that performs 50 resections annually. The model incorporates the costs associated with surgery, length of stay (taking into account facility and staff costs) and postoperative complications. The cost data used in the model was obtained from peer reviewed literature, the Ontario Cost ICNtique and costing data from a large Canadian hospital. Data on patient outcomes was obtained from published meta-analyses. A multivariate sensitivity analysis using a Monte Carlo simulation was completed to ensure scientific rigour. RESULTS: Laparoscopic liver resections are associated with higher device costs, but similar overall procedure costs. The additional device cost is offset by a shorter length of stay and lower rate of post-operative complications. The model establishes that for a Canadian hospital performing 50 liver resections increasing the proportion of laparoscopic cases from 16% to 40% allows for a potential cost savings of CAD $50,730 annually. CONCLUSIONS: In a Canadian hospital, laparoscopic liver resection offers a more cost-effective treatment for colorectal and secondary colorectal metastases when compared to open resection.

PCN34 EXAMINING THE BUDGET IMPACT OF ADOPTING NETUPITANT/PALONSETRON FOR THE PREVENTION OF CHEMOTHERAPY INDUCED NAUSEA AND VOMITING IN A U.S. HEALTH PLAN

Objective: Adverse effects of chemotherapy such as nausea and vomiting may contribute to poor quality of life and medication adherence. Anticipatory strategies such as prophylaxis with a 5-HT3 antagonist reduce the incidence of chemotherapy-induced nausea and vomiting (CINV). This study examined the budget impact of a hypothetical ten-million member health plan over a 3-year horizon. Estimates of cancer rates and utilization of HEC and NEC therapies were derived from epidemiological and market data. Treatment costs were computed using standard prescribing dosages, U.S. drug cost listings and simple reimbursement and dispensing assumptions. Uptake of NEPA was calculated at 5% for a year 3, and comparing antiemetic therapies were reduced proportionately based on initial share assumptions. RESULTS: A total of 54,000 patients with cancer were identified in the model scenario. Of these, 8,982 (18.3%) would receive HEC and 3,949 (7.3%) would receive NEC requiring combination therapy, for a total of 13,830 eligible for NEPA. Cost of CINV prevention prior to the adoption of NEPA was estimated at $40.96 million. Following adoption of NEPA, cumulative costs were reduced by nearly $629K by the end of year 3. Calculations using PAPM estimates showed cumulative savings of $40,000 in year 1, $1,004 in year 2, and $2,005 in year 3. CONCLUSIONS: Results of the model indicate that adoption of NEPA for the prevention of CINV may have a relatively neutral impact on a U.S. health plan budget. Additionally, these estimates do not include savings from a potential reduction in the overall rate of CINV.

PCN35 LUNG CANCER ECONOMIC BURDEN FROM A PRIVATE HEALTHCARE SYSTEM PERSPECTIVE IN BRAZIL

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OBJECTIVES: To evaluate the cost of lung cancer treatment in Brazil from the perspective of private hospitals and identify the major cost drivers. METHODS: Orizone administrative claims database containing over 18 million lives was used to identify patients with lung cancer using the following ICD-10 codes: C34, C34.9, C34.3, C34.4, C34.8, C34.92 between the period of November 2010 to October 2013. Only patients receiving traditional chemotherapy for their lung cancer were included in the analysis. RESULTS: A total of 11,348 patients were identified with lung cancer. In the study population, 54% men, 62% were older than 65 years, 37% were non-smokers, 35% were former smokers, 21% were current smokers and 3% were never smokers. Mean age was 66 years old on average, and received treatment for a mean duration of 5.5 months. Of the 11,348 patients, 3,076 were hospitalized and 8,272 received outpatient care. Forty-nine percent of the patients received chemotherapy, 15% of those hospitalized started chemotherapy as a first-line treatment while 85% of those hospitalized, each patient had, on average, 4.63 hospitalizations with an average length of stay of 9.55 days. The average cost per patient hospitalized was BRL 34,904, with approximately 25.67% of the total hospital cost spent on drugs and the remainder spent on fees, supplies, exams and procedures (24.41%, 37.31%, 5.71% and 6.89% respectively). For outpatient care, the average cost per patient was BRL 22,746 with 87.61% of the total outpatient care cost spent on drug expenses and the remainder spent on fees, supplies, exams and procedures (1.73%, 4.04%, 5.76% and 2.88% respectively). CONCLUSIONS: The economic burden of lung cancer in Brazil could be reduced especially in outpatient care if oral treatments instead of infusion-based treatments were used (e.g., avoidance of infusion-related resources such as drugs, fees, procedures and supplies), which could represent a reduction of 8.63% or BRL 1,956 per lung cancer patient.

PCN36 THE UTILIZATION OF LAPAROSCOPIC VERSUS OPEN LIVER RESECTION FOR HEPATOCELLULAR CARCINOMA OR SECONDARY COLORECTAL METASTASES: A BUDGET IMPACT ANALYSIS

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OBJECTIVES: Clinical research has demonstrated that laparoscopic resection for hepatocellular carcinoma or secondary colorectal metastases provides oncologically equivalent patient outcomes when compared to open liver resection, while also providing a statistically significant reduction in postoperative complications. Approximately 16% of all liver resections in Canada are laparoscopic liver resections. With a high rate of 16% of laparoscopic liver resections and a steady increase in the number of patients undergoing liver resections, healthcare environment hospitals face constrained budgets and it is critical to determine the impact of laparoscopic liver resection to increase procedure volume. This study was conducted to determine the budget impact of increasing the proportion of laparoscopic vs. open liver resection in a Canadian hospital. METHODS: We examined the budget impact of increasing the percentage of laparoscopic liver cases from 16% to 40%, while decreasing the number of open cases proportionally in a hospital that performs 50 resections annually. The model incorporates the costs associated with surgery, length of stay (taking into account facility and staff costs) and postoperative complications. The cost data used in the model was obtained from peer reviewed literature, the Ontario Cost ICNtique and costing data from a large Canadian hospital. Data on patient outcomes was obtained from published meta-analyses. A multivariate sensitivity analysis using a Monte Carlo simulation was completed to ensure scientific rigour. RESULTS: Laparoscopic liver resections are associated with higher device costs, but similar overall procedure costs. The additional device cost is offset by a shorter length of stay and lower rate of post-operative complications. The model establishes that for a Canadian hospital performing 50 liver resections increasing the proportion of laparoscopic cases from 16% to 40% allows for a potential cost savings of CAD $50,730 annually. CONCLUSIONS: In a Canadian hospital, laparoscopic liver resection offers a more cost-effective treatment for colorectal and secondary colorectal metastases when compared to open resection.