

## PCN43

**THE ASSOCIATION OF TUMOR HISTOLOGY WITH FIRST-LINE TREATMENT AND LIFETIME MEDICAL-CARE COSTS AMONG ELDERLY STAGE IIIB/IV NON-SMALL CELL LUNG CANCER (NSCLC) PATIENTS TREATED WITH COMMONLY USED DOUBLET THERAPIES AMONG**Lang K<sup>1</sup>, Marciniak M<sup>2</sup>, Faries D<sup>2</sup>, Clements KM<sup>1</sup>, Nyambose J<sup>1</sup>, Earle C<sup>3</sup>, Sugarman K<sup>2</sup>, Thompson D<sup>1</sup><sup>1</sup>i3 Innovus, Medford, MA, USA, <sup>2</sup>Eli Lilly and Company, Indianapolis, IN, USA, <sup>3</sup>Harvard University, Boston, MA, USA

**OBJECTIVE:** Evidence concerning the relationship between medical-care costs and tumor histology among advanced-staged NSCLC patients is lacking. The purpose of this analysis was to identify costs associated with first-line chemotherapy treatment and total lifetime medical-care costs by tumor histology among elderly Stage IIIB/IV NSCLC patients treated with commonly used doublet chemotherapy regimens. **METHODS:** Study patients included those aged 65 years and older who were diagnosed with Stage IIIB/IV NSCLC in a SEER cancer registry between 1997 and 2002 and who received first-line treatment with a commonly used doublet regimen. Study patients were followed in the SEER-Medicare database to evaluate costs while on first-line chemotherapy treatment as well as lifetime medical-care costs by histology for commonly used doublets. Pairwise comparisons of costs estimated using non-parametric bootstrap methodology were generated for treatment comparisons. Estimated differences in mean costs, adjusted for sex, race age, urban/rural, geographic region, stage, Charlson comorbidity index and tumor histology are presented. **RESULTS:** Total lifetime medical-care costs for elderly IIIB/IV patients with squamous cell carcinoma were \$51,360, while costs for those with non-squamous cell carcinoma were \$50,905. Costs per month were \$6364 and \$6870 respectively, and were dominated by hospital and physician utilization. Among commonly used doublets, the estimated difference in adjusted mean total costs for Cisplatin/Carboplatin (P) and a Taxane (T) were significantly higher when compared to P and Gemcitabine (G) (difference \$4816 [\$1554–\$8101]). Similar findings were observed for costs while on first-line therapy, (difference \$5686 [3738–\$7630] respectively). **CONCLUSION:** While lifetime medical-care costs and costs while on first-line chemotherapy among treated Stage IIIB/IV NSCLC patients are substantial, the cost differential between squamous cell and non-squamous cell carcinoma is small. Controlling for tumor histology and other factors, patients treated with a combined platinum and taxane regimen experience the highest costs.

## PCN44

**INCIDENCE AND COSTS OF TREATMENT-RELATED COMPLICATIONS AMONG PATIENTS WITH ADVANCED SQUAMOUS CELL CARCINOMA OF THE HEAD AND NECK**Lang K<sup>1</sup>, Sussman M<sup>1</sup>, Friedman M<sup>1</sup>, Su J<sup>2</sup>, Kan HJ<sup>2</sup>, Mauro D<sup>2</sup>, Menzin J<sup>1</sup><sup>1</sup>Boston Health Economics, Inc, Waltham, MA, USA, <sup>2</sup>Bristol-Myers Squibb Company, Wallingford, CT, USA

**OBJECTIVE:** Platinum-based chemotherapies have been associated with debilitating treatment-related complications among patients with advanced squamous cell carcinoma of the head and neck (ASCCHN). This study evaluated the incidence and costs of such complications among ASCCHN patients undergoing radiotherapy alone versus platinum-based chemoradiotherapy. **METHODS:** Using 2000–2006 data from the PharMetrics Patient-centric Database, this retrospective cohort study measured clinical practices, incidence rates, and costs of treatment-related complications including oral complications, dehydration,

infection/fever, fatigue, malnutrition, nausea, neutropenia and anemia among ASCCHN patients undergoing radiotherapy alone or platinum-based chemoradiotherapy. Patients were identified if they had a SCCHN claim between June 30, 2000 and December 31, 2005 and an indication of a secondary malignant neoplasm (both based on ICD-9-CM diagnosis codes). Patients were assigned to a treatment-based cohort—radiotherapy only or platinum-based chemo-radiotherapy, and were followed for six months. **RESULTS:** We identified 131 ASCCHN patients treated with radiotherapy alone and 90 patients treated with chemoradiotherapy, including 62 with cisplatin plus radiotherapy, 30 with carboplatin plus radiotherapy, and two with cisplatin and carboplatin plus radiotherapy. Patients undergoing chemoradiotherapy were slightly younger than radiotherapy patients (mean ages: 54.1 and 56.1 years, respectively), were more likely to be male, and were less healthy, as evidenced by higher Charlson co-morbidity scores. We found significantly ( $P < 0.001$ ) higher rates of treatment-related complications among patients receiving chemo-radiotherapy (87%) compared with patients receiving only radiotherapy (51%). Mean per-patient costs associated with treatment-related complications were \$10,632 higher among chemo-radiotherapy patients compared to radiotherapy patients ( $P = 0.002$ ). These costs comprised 18% of total costs during follow-up for chemo-radiotherapy patients and 9% of costs for radiotherapy patients. The most expensive complications were dehydration/electrolyte imbalance and oral complications. **CONCLUSION:** Our findings suggest that the excess incidence and costs of treatment-related complications associated with chemo-radiotherapy in ASCCHN are substantial. The emergence of safer treatments may alleviate this cost burden.

## PCN45

**RESOURCE UTILIZATION AND COST ESTIMATION OF ADVERSE EVENTS OF NON-SMALL CELL LUNG CANCER TREATMENT IN MEXICAN PATIENTS. RESULTS OF A DELPHI PANEL**Lopez Mariscal AR<sup>1</sup>, Osornio JC<sup>2</sup>, Villalobos R<sup>3</sup>, Reyes S<sup>4</sup>, Solano P<sup>5</sup>, Polanco AC<sup>6</sup>, Soto H<sup>6</sup><sup>1</sup>Regional General Hospital, No.110, IMSS, Guadalajara, Guadalajara, Jalisco, Mexico, <sup>2</sup>AstraZeneca, Mexico, Naucalpan, Mexico, <sup>3</sup>Mexican National Medical Center, XXI Century (CMN SXXI), IMSS, Mexico City, Mexico, <sup>4</sup>Zone General Hospital No. 50 IMSS, San Luis Potosí, Mexico, <sup>5</sup>West National Medical Center (CMNO), IMSS, Guadalajara, Jalisco, Mexico, <sup>6</sup>AstraZeneca, Mexico, Naucalpan, Mexico, Mexico

**OBJECTIVE:** To estimate mean costs per event of the most common adverse events (AEs) due to treatment of non-small cell lung cancer (NSCLC) in Mexican patients based on treatment patterns (TP) and resource utilization. **METHODS:** Specialists were invited to participate in a Modified Delphi Panel to acknowledge real TP of AEs for patients undergoing NSCLC treatment such as neutropenia (NP), anemia (AN), thrombocytopenia (TC), febrile neutropenia (FN), dyspnea (DS), hypersensitivity (HS), rash (RA), nausea (NS), vomiting (VO), diarrhea (DR), stomatitis (ST), peripheral neuromotor alterations (PNA), anorexia (AX) and interstitial lung disease (ILD). Questionnaire was designed based on experts' opinion and answered by specialists, using a nine level Likert scale in order to obtain consensus for the proposed scenarios. Scenarios included drugs use, percentage of hospitalized patients, hospitalization days and visit to emergency room, and laboratory/cabinet exams. Afterwards, an analysis and controlled feedback with a moderated debate stage took place until consensus achievement ( $\geq 7$  approval-median) for each questionnaire item. Economic analysis was done under the public sector perspective. Unitary costs were obtained from the Mexican Institute of Social Security (Diario