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# Abstracts

radiotherapy was US \$412.14 (SD: US \$46.52). The mean cost per patient in each clinical stage to chemotherapy was I: US \$3166.99 (SD: US \$2258.67), II: US \$3843.45 (SD: US \$1381.09), III: US \$5254.36 (SD: US \$922.43), IV: US \$2500.40 (SD: US \$1323.60) and the non classified: US \$22562.52 (SD: US \$1356.95) p 0.551. CONCLUSIONS: The results show that in México, in more expensive the treatment to patients with non-hodgkin lymphoma in clinical stage III.

#### PCN56 COSTS ASSOCIATED TO THE TREATMENT OF DIFFERENT STAGES OF MEXICAN BREAST CANCER PATIENTS

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OBJECTIVES: To describe costs associated to the treatment of different stages of breast cancer patients at the Social Security Mexican Institute (IMSS) from the health care payer's perspective. METHODS: A cost study was elaborated. Resource use and cost data were obtained from hospital (second and tertiary levels) records of 313 of treated patients during July 2008 to February 2009 using the following inclusion criteria: women older than 16 years with breast cancer histological diagnosis who accepted to be included in the protocol through informed consent. Although, patients excluded were those who showed a second malignant neoplasm or incomplete information. We calculate mean, median, 95% confidence interval (95% CI) for each clinical stage and statistical differences were estimated through ANOVA tests, p value <0.05 was considered significant to show differences. RESULTS: The median total cost per patient was found in US \$6135.38 (95% CI, US \$4216.19-US \$9737.19); the median cost per chemotherapy cycle was US \$615.48 (95% CI, US \$425.98-US \$1456.63); all chemotherapy treatment resulted in US \$2702.03, (95% CI, US \$1456.36-US \$5503.49) and median costs per patient with radiotherapy resulted in US \$1260.78 (95% CI, US \$421.34-US \$1260.78). The mean cost per patient in each clinical stage with chemotherapy was: I: US \$1830.80 (95% CI, US \$686.21-\$2975.39); II: US \$5143.41 (95% CI, US \$3570.19-\$6716.62); III: US \$4079.77 (95% CI, US \$2739.86-\$5419.68); IV: US \$4907.21 (95% CI, US \$672.11-\$9142.31) and the non classified patients: US 5250.66 (95% CI, US 3360.94-57140.40); p = 0.401. CONCLUSIONS: The results showed that at the IMSS, it is more expensive the treatment of breast cancer patients in clinical stage II; however, the less expensive treatments resulted for patients in clinical stage I. In addition, the treatment of non classified patients were the second most expensive according to our results.

# PCN57

### COSTS ASSOCIATED TO THE TREATMENT OF DIFFERENT STAGES OF MEXICAN PATIENTS WITH COLORECTAL CANCER Balderas-Peña LMA<sup>1</sup>, Contreras I<sup>2</sup>, Mould-Quevedo JF<sup>3</sup>, Morgan-Villela G<sup>4</sup>, Garduno-Espinoza J<sup>5</sup>, Sat-Muñoz D<sup>1</sup>, Solano-Murillo P<sup>6</sup>, Marisal-Ramírez I<sup>1</sup>, Lomelí-García M<sup>4</sup>,

#### Espinoza J', Sat-Munoz D', Solano-Murillo P', Mariscal-Ramirez I', Lomeli-Ga Hernández-Chavez GA<sup>I</sup>

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colorectal cancer at the Social Security Mexican Institute (IMSS) from the health care payer's perspective. METHODS: A cost study was made. Resource use and cost data were obtained from hospital (second and tertiary levels) records of 115 treated patients from July 2008 to February 2009 using the following inclusion criteria: patients older than 16 years with colorectal cancer histological diagnosis who accepted to be included in the protocol through informed consent. Although, patients excluded were those who showed a second malignant neoplasm or incomplete information. We calculate mean, standard deviation (SD), median, 25 percentil and 75 percentil for each clinical stage and statistical differences were estimated through ANOVA tests, p value <0.05 was considered significant to show differences. RESULTS: The median total cost per patient was US \$3,263.52 (US \$2,111.29 to US \$4,881.14), the mean cost per chemotherapy was US \$484.16 (SD: US \$113.95), mean cost to radiotherapy was US \$402.40 (SD: US \$57.20). The mean cost per patient in each clinical stage to chemotherapy was I: US \$247.21 (SD: US \$247.21), II: US \$482.48 (SD: US \$208.96), III: US \$393.75 (SD: US \$192.35), IV: US \$986.17 (SD: US \$631.59) and the non classified: US \$386.88 (SD: US \$105.18) p 0.521. CONCLUSIONS: The results show that in México, in more expensive the treatment to patients with colorectal cancer in clinical stage IV, the cheapest treatment was to patients in clinical stage I, the treatment to clinical stage II patients are the second most expensive according our results, probably associated to longer hospital stay.

# PCN58

# BEVACIZUMAB FOR THE TREATMENT OF METASTATIC BREAST CANCER: A COST-EFFECTIVENESS ANALYSIS

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OBJECTIVES: Novel chemotherapies for metastatic breast cancer (MBC), such as bevacizumab, have the potential to extend progression-free survival but with a financial burden to health systems. We estimate the cost-effectiveness of bevacizumab in combination with paclitaxel as compared to paclitaxel alone from the perspective of the United States Medicare system. METHODS: We constructed a hybrid decision tree-Markov model to follow a cohort for ten years composed of 10,000 women ages 65 and older with a diagnosis of MBC and no prior chemotherapy in the metastatic setting. Individuals in the model transitioned between three distinct states: stable disease, progressive disease, and death. Transition probabilities, cost and outcome data were obtained from clinical trials, published Medicare reimbursement rates, and the peer-reviewed literature. Incremental costs per quality-adjusted life year (QALY) were valued in 2009 US dollars. We discounted costs and survival at 3% per year. Deterministic and probabilistic sensitivity analyses tested the robustness of the model to variation in key parameters. RESULTS: In the base-case scenario, the bevacizumab plus paclitaxel arm had 22 additional days in quality-adjusted survival at an additional cost of \$104,102 per patient, resulting in an incremental cost-effectiveness ratio (ICER) of \$1.7 million/OALY. In the probabilistic sensitivity analysis, the ICER plane of 1.000 Monte Carlo simulation trials resulted in bevacizumab being more costly and more effective in 66.8% of samples and the dominated strategy in 34.1% of samples. In the deterministic sensitivity analysis, results were robust to changes in cost and utility parameters. Variation in time in progressive state and overall survival resulted in higher costs and slightly better outcomes; however, none of the sensitivity tests had positive ICERs below \$50,000/QALY. CONCLUSIONS: Given the high cost in relation to its survival benefits, it is unlikely that adding bevacizumab for MBC would be a cost-effective allocation of Medicare resources.

#### PCN59

## THE POTENTIAL ECONOMIC BENEFITS PROVIDED BY COMBINING CISPLATIN WITH SRC INHIBITOR KXI-004 FOR CANCER REGIMENS Henderson D<sup>1</sup>, Hayward A<sup>2</sup>, Purdy C<sup>3</sup>, Magar R<sup>4</sup>

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OBJECTIVES: Cisplatin is a chemotherapeutic agent which is widely used and studied for multiple cancer types; however certain types of toxicity (ototoxicity, nephrotoxicity and neurotoxicity) are associated with Cisplatin. Preclinical studies, performed on human testicular cancer cell lines, have indicated that combining Cisplatin with a Src Inhibitor (KX1-004) may significantly mitigate toxicity related damage. To utilize the results from preclinical studies examining the benefit of combining Cisplatin with KX1-004 in conjunction with cost of illness estimates from the literature to estimate the potential economic benefits which could result from KX1-004 utilization. METHODS: Data from preclinical studies examining the toxicity limiting efficacy of KX1-004 was combined with clinical and economic data from the literature with respect to the estimated cost of health care resources related to the specified toxic effects. This efficacy and costing information was combined within a decision tree model to estimate the potential cost savings. RESULTS: The preclinical data indicates that KX1-004 may have a protective effect with respect to the neurotoxic, nephrotoxic (22% less damage) and ototoxic (82% less damage) effects. The Src inhibitor, when used alone and in conjunction with Cisplatin, exhibited the potential to slow tumor growth and maintain overall body mass. The economic modeling resulted in a potential per patient cost savings of \$1633 resulting from mitigation of the ototoxic and nephrotoxic effects. CONCLUSIONS: Recent research has indicated that Cisplatin should be considered as a component of the standard therapy regimen for certain cancer types; however toxicity remains a significant concern. When Cisplatin is used within a regimen which includes KX1-004, the benefits may include decreased damage due to toxicity and an improvement in quality of life. The Src inhibitor may also provide a survival benefit by enabling patients to remain on a regimen which includes Cisplatin.

# PCN60

#### COST-EFFECTIVENESS OF OXALIPLATIN AND IRINOTECAN BASED COMBINATION THERAPY COMPARED WITH 5FU/LY FOR THE TREATMENT OF US ELDERLY ADVANCED COLON CANCER PATIENTS Hsiao FY', Mullins CD', Onukwugha E, Pandya NB<sup>2</sup>, Seal B<sup>3</sup>, Hanna N<sup>2</sup>

<sup>1</sup>University of Maryland School of Pharmacy, Baltimore, MD, USA, <sup>2</sup>University of Maryland Medical Center, Baltimore, MD, USA, <sup>3</sup>Sanofi-Aventis Pharmaceuticals, Bridgewater, NJ, USA **OBJECTIVES:** Clinical trials have shown a statistically significant disease-free survival benefit of oxaliplatin or irinotecan based combination therapy for stage IV colon cancer. However, less is known regarding the comparative effectiveness and costeffectiveness of these agents among elderly patients. Whether the additional benefit of these two agents is worth the additional cost for elderly Medicare recipients is particularly policy relevant. **METHODS:** A cost-effectiveness analysis of oxaliplatin or irinotecan based combination therapy versus *S*-fluorouracii/leucovorin (*S*FU/LV) in patients aged 66 or older with stage IV colon cancer was performed from a US Medicare health care payer perspective. Survival and direct medical costs were estimated using patient-level data from the 1997–2007 surveillance, epidemiology, and end results (SEER)-Medicare datasets for patients diagnosed through 2005. Incremental cost-effectiveness ratio (ICER) was calculated and expressed as cost per life-year