to contemplate the question how innovative technologies can be financed is there even a potential to estimate the direct medical costs of breast cancer treatment in Iran in the period of 21/03/2011-20/03/2014 and examined the fraction of total costs related to trastuzumab use. METHODS: A retrospective claims database analysis was performed using data from the Iran Social Security Organization, a health-care provider that covered approximately 50% of the Iranian population. Data mining techniques helped to identify patients and determine resource use in the three stages of breast cancer (early, loco-recurrence and advanced). Using a healthcare perspective, absolute and relative costs of various treatment subsegments associated with treatment of HER2-positive breast cancer among Iranian women in both public and private healthcare systems were calculated. RESULTS: The patient population comprised 1,295 women (mean (SD) age: 45.6 (10.3) years) and mean follow-up was 739 days (range: 1-1,072). Average costs of drugs and chemotherapy in early loco-recurrence and advanced stages were €2,707 (range: €98-€2,368, €2,751 (€31-€2,420) and €13,030 (€151-€45,813), respectively. Average costs of radiotherapy and diagnostic tests were €11,423 (€1-€63,684) and €15,563 (€2-€937,364), respectively for the largest share of total costs (58%), followed by paraclinical services (12%), radiotherapy (10%), and other drugs and chemotherapy (9%). CONCLUSIONS: Trastuzumab is an expensive drug which may require a substantial share of available healthcare resources to determine if these costs are justified from a health economic view. Moreover, if relevant data are available, data mining techniques can support real-world cost-effectiveness analyses in middle-income countries and help to optimize reimbursement decisions.

PCN60 A COST-EFFECTIVENESS ANALYSIS OF A BIOMARKER TEST COMPARED TO STANDARD OF CARE SURVEILLANCE IN PATIENTS WITH BARRETT’S ESOPHAGUS

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OBJECTIVES: An estimated 17 million people in the US have Barrett’s Esophagus (BE), a high-grade dysplasia of the esophagus that may progress to high-grade dysplasia (HGD) and ESCC. The test stratifies patients into high, medium, and low risk categories, providing providers actionable information for BE endoscopy surveillance frequency and treatment decisions such as radiofrequency ablation (RFA). This study evaluates the cost-effectiveness of this new biomarker test compared with the current standard of care (SOC) surveillance and treatment of BE. METHODS: Decision analysis with Markov modeling and cohort simulation were used to model treatment and associated costs for BE stratified into high, medium, and low risk categories. Costs were derived from Geisinger Health Plan claims data and quality-adjusted life-years (QALYs) from the medical literature. The model includes realistic assumptions for physician adherence to SOC for patients in each risk category. RESULTS: Preliminary results of a 5-year model of using the new biomarker test compared to SOC include an incremental cost-effectiveness ratio of $75,804 in U.S. 2012 dollars. Cumulative endoscopies in the biomarker test arm were 6.23% greater than with SOC and there were 73.3% fewer cumulative RFAs under SOC than with the biomarker test. Compared with SOC, the number of patients in the HGD, ESCC, and death states in the biomarker test arm were 52.5%, 60.9% and 98% fewer, respectively for the following 5 years. CONCLUSIONS: Given the high cost of treatment, the cost of managing AEs adds to the economic burden of cancer treatment. Post 2007 there has been no systematic review summarizing the costs of AEs related to chemotherapy. Hence, the objective of this study is to provide an updated understanding of the cost of AEs. METHODS: A systematic literature search was conducted using PubMed. Selection criteria included studies published in the English language between January 2008 and October 2013, evaluating the cost of following AEs: neutropenia, thrombocytopenia, vomiting, nausea, peripheral neuropathy, sepsis, diarrhea and fatigue/asthenia, due to cancer treatment in the US. Costs were extracted for care and control cohorts (if available) and the cost difference between the cohorts was calculated to provide the additional cost due to the AEs. This difference in costs was then adjusted to 2013 USD. RESULTS: A total of 893 abstracts were screened, of which 15 unique studies were included. The distribution of studies reporting the selected AEs were: neutropenia (n=5), thrombocytopenia (n=3), vomiting (n=5), nausea/vomiting (n=5), peripheral neuropathy (n=1), sepsis (n=2), diabetes (n=1) and fatigue/asthenia (n=1). The studies reported inpatient, outpatient, or total healthcare costs, with different units including per patient, per patient-year (PFPY), per episode of care. The AEs costs varied vastly; the range was from $0 (outpatient) to $123 (inpatient) to $6,000 (inpatient) while the PFPY cost ranged from $9,800 (outpatient) to $21,000 (total healthcare costs). CONCLUSIONS: AEs commonly encountered in cancer treatment remain an expensive problem despite medical advances. In addition to the high cost of cancer treatment, the cost of managing AEs adds to the economic burden on patients, Fayers, and society. This study highlights that the cost of AEs associated with cancer treatments are consistently high and consume a large portion of healthcare resources.

PCN62 ASSESSING THE ECONOMIC BURDEN AND HEALTH CARE RESOURCE UTILIZATIONS OF U.S. MEDICARE PATIENTS WITH MYELOPROLIFERATIVE NEOPLASMS

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OBJECTIVES: To examine the economic burden and health care resource utilization of myeloproliferative neoplasms (MPNs) in the U.S. Medicare population. METHODS: A retrospective data analysis was performed using the U.S. national Medicare claims from January 2008 through December 2012. MPN patients were identified using International Classification of Disease 9th Revision Clinical Modification (ICD-9-CM) diagnosis codes 284, 238, 238.7, 238.6 and 238.8. The diagnosis date was designated as the index date. A comparison cohort without a MPN diagnosis was created for patients of the same age, region, gender, index year and baseline characteristics. The patients were then further stratified into the comparison cohort to reduce selection bias. Patients were required to have continuous medical and pharmacy benefits 1 year pre- and post-index date. One-to-one propensity score matching (PSM) was performed to compare follow-up between the cohorts, adjusting for demographic and clinical characteristics. RESULTS: Eligible patients (N=17,950) were identified for the MPN and comparison cohorts. After 1:1 PSM, a total of 5,546 patients were matched from each cohort and baseline characteristics were well-balanced. MPN patients had a higher percentage of healthcare resource utilizations, including Medicare carrier (98.6% vs. 65.9%), Durable Medical Equipment (DME; 29.5% vs. 14.4%), Home Health Agency (HHA, 12.4% vs. 5.0%), outpatient visits (76.6% vs. 67.4%), inpatient hospitalizations (77.9% vs. 68.8%) and Skilled Nursing Facility (SNF; 75% vs. 20%) visits than non-MPN patients. Patients diagnosed with MPNs also incurred significantly higher costs, including Medicare carrier ($3,872 vs. $1,283), DME ($639 vs. $250), outpatient ($10,013 vs. $3,214), inpatient ($4,549 vs. $1,054), pharmacy ($1,069 vs. $713) and total health care costs ($23,060 vs. $7,976; p<0.0001). CONCLUSIONS: MPN patients had a higher burden of illness compared to non-MPN patients.

PCN63 SYSTEMATIC LITERATURE REVIEW OF COST OF ADVERSE EVENTS IN CANCER TREATMENTS IN THE US

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OBJECTIVES: We systematically reviewed articles published in the English language between 2008 and 2013, evaluating the cost of adverse events (AEs) during cancer treatment in the US. Costs were extracted for care and control cohorts (if available) and the cost difference between the cohorts was calculated to provide the additional cost due to the AEs. This difference in costs was then adjusted to 2013 USD. RESULTS: A total of 893 abstracts were screened, of which 15 unique studies were included. The distribution of studies reporting the selected AEs were: neutropenia (n=5), thrombocytopenia (n=3), vomiting (n=5), nausea/vomiting (n=5), peripheral neuropathy (n=1), sepsis (n=2), diabetes (n=1) and fatigue/asthenia (n=1). The studies reported inpatient, outpatient, or total healthcare costs, with different units including per patient, per patient-year (PFPY), per episode of care. The AE costs varied vastly; the range was from $0 (outpatient) to $123 (inpatient) to $6,000 (inpatient) while the PFPY cost ranged from $9,800 (outpatient) to $21,000 (total healthcare costs). CONCLUSIONS: AEs commonly encountered in cancer treatment remain an expensive problem despite medical advances. In addition to the high cost of cancer treatment, the cost of managing AEs adds to the economic burden on patients, Fayers, and society. This study highlights that the cost of AEs associated with cancer treatments are consistently high and consume a large portion of healthcare resources.

PCN64 PERCEPTIONS OF BIOSIMILAR MONOCLONAL ANTIBODIES AMONGST EUS BUDGET HOLDERS

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OBJECTIVES: Branded biologics will soon begin to face competition from biosimilar monoclonal antibodies (mAbs), with many currently in development. Given the transition many markets are making towards becoming increasingly cost conscious, we sought to investigate how budget holders across the most important European markets perceived the incoming oncology biosimilar mAbs. METHODS: The research was conducted through in-depth interviews and focus groups with budget holders across the EU5 (UK, France, Germany, Italy, Spain). The interviews explored prior biosimilar experience evaluating and making decisions on small molecule biosimilars (e.g. filgrastim, EPO). However, there was a lack of experience and knowledge amongst budget holders of biosimilar mAbs and there were how much the biosimilar mAbs were going to be educated. The originator product was preferred in all attributes tested while costs were cited as the most important driver for encouraging adoption of biosimilar mAbs. Additionally, budget holders across the EU5 were adament about maintaining automation as a key (albeit, increasing) factor of the originator until enough experience was built up (at least 12 months, 24 months likely). Respondents also suggested that key institutions or regions will make decisions early on while other less resourced centres/regions will adopt their decision. Conversely, clinicians were apprehensive of biosimilar mAbs and anticipate resisting