individuals during 2004-2008 were used in this retrospective database study of patients with metastatic or recurrent, locally-advanced HNC. Patients diagnosed with HNC were matched 1:1 to cancer-free patients in order to measure the incremental economic burden of metastatic and recurrent, locally-advanced HNC. Outcomes measured included mean length of hospital stay and hospitalisation costs were $60,414 per patient for metastatic HNC and $21,141 per patient for recurrent, locally-advanced HNC (p < 0.001). All differences were statistically significant (p < 0.0001). Incremental adjusted total costs were $66,414 per patient for metastatic HNC and $21,141 per patient for recurrent, locally-advanced HNC (p < 0.001). Approximately 46-58% of the incremental cost was attributable to outpatient visits, 27-37% to inpatient costs, and 11-13% to pharmacy, depending on the cohort. CONCLUSIONS: Healthcare resource utilization and economic burden of patients with metastatic or recurrent, locally-advanced HNC is substantial compared to cancer-free patients.

PCN102 SYNCHRONIZATION OF ADMINISTRATION OF CHEMOTHERAPY AND ERYTHROPOIESIS-STIMULATING AGENTS AND FREQUENCY OF ASSOCIATED HEALTh CARE VISITS

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OBJECTIVES: Dosing schedules for the erythropoiesis-stimulating agents (ESAs) darbepoetin alfa (DA) and epoetin alfa (EA) differ with the availability of Q3W dosing for DA compared to the predominantly weekly schedule for EA. For chemotherapy regimens with longer intervals between administrations, DA can be administered less frequently than EA and presumably with a higher likelihood of synchronization between chemotherapy and ESA schedules. This study examined frequency of ESA visits and synchronization of chemotherapy and ESA administrations in current clinical practice. METHODS: A retrospective analysis of ESAs utilization during ESA Episodes of Care (ESAs EOCs) was conducted on all cancer patients receiving chemotherapy and receiving ESA therapy between 7/1/2007 to 3/31/2010 (n = 9,961). Patients were identified in the SDI oncology electronic medical records database. ESA administrations were classified as synchronized with chemotherapy if either received on the same day or unsynchronized. The odds that an ESA visit was synchronized with chemotherapy was compared for patients receiving DA and EA using generalized estimating equations (GEE). Mean healthcare visits were compared using Heckman’s 2-step estimator to overcome the sample selection bias. RESULTS: The numbers of patients by ESA were 6,522 for DA and 3,439 for EA. The overall synchronization was higher for the DA (66.2% & 65.9% in 2009 and 2010, respectively) compared to EA (54.4%). The odds that an ESA administration was synchronized with chemotherapy was higher for DA compared to EA (OR = 1.46, 95%CI: 1.37 - 1.54). DA patients had 2.3 fewer visits with an ESA administration (p < 0.0001), and 3.0 fewer total visits over the ESA EOC (p < 0.0001). CONCLUSIONS: Patients receiving DA were associated with fewer healthcare visits as compared to patients receiving EA. This evidence suggests that DA may reduce patient and practice burden through greater synchronization of ESA and chemotherapy administrations and may reduce healthcare resource utilization compared to EA.

PCN103 THE IMPACT OF INFUSION REACTIONS ASSOCIATED WITH MONONOCULAR ANTIBODIES IN METASTATIC COLRECTAL CANCER: A EUROPEAN PERSPECTIVE

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OBJECTIVES: Monoclonal antibody (mAb) therapies for the treatment of metastatic colorectal cancer (mCRC) have different treatment-related toxicities. This study aimed to eludate the treatment-related toxicities of mAbs commonly associated with monoclonal antibodies when administered to patients with mCRC. METHODS: This study extracted data for patients newly diagnosed with mCRC from a large US claims database from January 2005 to June 2008. The first distant metastasis diagnosis date was defined as the index date. Hospital admissions for AEs of interest were identified by primary discharge diagnoses after the index date. Main outcomes were mean length of hospital stay (days) and hospitalisation costs (US$) per hospital admission for AEs identified. All analyses are presented describeively.

RESULTS: The study population (aged ≥18 years, n = 12,648) was balanced according to gender and was mainly aged 50 years or older (90.1%). Most patients had colon cancer (70.1%) as opposed to rectal cancer. The longest mean (median) length of stay was observed for Wound-healing complications (14.1 (7.0) days) and gastrointestinal (GI) perforation (13.8 (11.0) days), followed by hypertension (8.5 (3.9) days) and thromboembolism (7.1 (5.5) days), veno-occlusive disease (5.4 (4.0) days), and congestive heart failure (5.3 (4.0) days). The highest inpatient cost per event was for GI perforations (mean $66,224 and median $34,027), followed by arterial thromboembolism (mean $40,992 and median $18,587), wound-healing complications (mean $23,143 and median $13,646), infarction (mean $26,705 and median $19,111), and acute myocardial infarction (mean $22,395 and median $15,223). Skin toxicity (mean $6,475 and median $316) was associated with relatively low costs. CONCLUSIONS: Hospital costs for monoclonal antibody treatment-related AEs in patients with mCRC vary greatly. This study provides source data for economic evaluations of head-to-head comparisons of monoclonal antibody treatments.

PCN105 ESTIMATING NICE’S COST EFFECTIVE THRESHOLD FOR END-OF-LIFE MEDICAL CARE TREATMENTS

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OBJECTIVES: To estimate NICE’s cost effectiveness threshold following application of its end-of-life supplemental advice criteria (EOL) to single technology appraisals (STA) for cancer drugs. METHODS: We searched all NICE STAs for single technology appraisals of cancer drugs in 2009 and 2010 and identified 30 STAs for which EOL advice was given. We excluded two STAs as the estimated ICER was lower than the EOL effectiveness threshold value of £30,000. Each STA was evaluated on the extent to which NICE determined the drug to have satisfied each of the three EOL criteria. The ICER of each technology extends life by at least 3 months compared to current NHS treatments. Eight drugs did not meet the third criterion that the treatment is indicated for small patient populations.

RESULTS: Of the 28 drugs that met all three EOL criteria, the ICER of each technology extends life by at least 3 months compared to current NHS treatments. Eight drugs did not meet the first criterion that there is sufficient evidence to indicate that the technology extends life by at least 3 months compared to current NHS treatments. Eight drugs did not meet the second criterion that the drug has satisfied each of the three EOL criteria. The ICER of each drug that met all three EOL criteria was compared to the £30,000 threshold. RESULTS: Two of the 28 drugs did not meet the first criterion that the treatment is indicated for patients whose life expectancy is normally less than 24 months. Twelve drugs did not meet the second criterion that there is sufficient evidence to indicate that the technology extends life by at least 3 months compared to current NHS treatments. Eight drugs did not meet the second criterion that the treatment is indicated for small patient populations.

CONCLUSIONS: The cost effectiveness threshold for EOL treatments is around £50,000. How EOL criteria are interpreted varies, however. The first criterion is straightforward, based largely on widely accepted estimates of life expectancy for the given indication. Robustness of survival data will dictate application of the second criterion. Manufacturers should expect an estimated population of ≥7,000 to satisfy the third criterion.

PCN106 RESEARCH ON THE FACTORS AFFECTING THE ADOPTION OF HIGH MEDICAL CONSUMES IN LESS DEVELOPED AREAS OF CHINA

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1MEDICAL CONSUMES IN LESS DEVELOPED AREAS OF CHINA

OBJECTIVES: The objective of this study is to explore the factors affecting the adoption of high medical consumes in less developed areas of China. METHODS: 714 medical records were selected from the prefecture-level and county-level hospitals in Hubei, Henan, Sichuan and Shandong to collect information and environment. An interview covered personnel who have been approved as the barriers for Stapler Adoption. Strong perceived benefits and cost-effectiveness among surgeons, hospital leaders, Hospitals and surgeons seen to adopt new technologies and techniques; General market development. Barriers: Prefector Level: The high cost of new technology is the main barrier to adoption. The surgeons and hospital leaders believe that the new technology is not cost-effective to share gain are surgery talent and to moderate satisfaction with domestic products, reimbursement policy. County Level: Patient affordability and surgery skills/awareness are both barriers, but our study design did not permit quantification of their relative impacts. Decision-Making Unit and Influences: Surgical direc-
OBJECTIVES: This study describes the real-world healthcare resource utilization patterns for MCP patients treated by a urologist and/or an oncologist versus urologist only.

METHODS: Health insurance claims (01/1999-02/2009) from 40 self-insured companies across the US were analyzed. Patients with a metastasis diagnosis (ICD-9: 196-199) following 2 prostate cancer diagnoses (ICD-9: 185, V10.46) within 365 days were identified. Patients with other malignant diagnoses were excluded. Patients were categorized in the ONCO group if they had ≥1 claim from an oncologist (≥1 claim from urologist) and the URO group if they had claims only from an urologist. Patients were evaluated for chemotherapy, hormonal agents, corticosteroids, supportive care, and hospitalizations during both baseline (defined as 365 days prior to metastasis diagnosis [index date]) and observation periods.

RESULTS: A total of 1,661 URO and 1,131 ONCO patients formed the study population. At baseline, median age was similar for URO and ONCO patients (72.3 vs. 71.3 years). During the observation period, URO patients received chemotherapy (5.8% vs. 7.3%), hormonal agents (41.5% vs. 63.1%), and corticosteroids (16.6% vs. 26.5%), compared to the ONCO group. The same trend was observed for supportive care therapies (URO vs. ONCO; biphosphonates: 4.8% vs. 10.5%; opioids: 33.4% vs. 41.8%). The rate of hospitalization at baseline was similar between groups. During the observation period, 13.4% of URO patients received chemotherapy, compared to 38.5% for ONCO patients. Similar differences were observed for the use of hormonal therapy (52.7% vs. 71.3%), corticosteroids (36.5% vs. 61.9%), and supportive care therapies (biphosphonates: 18.1% vs. 38.7%; opioids: 58.7% vs. 68.3%). Fewer URO patients had hospitalizations (62.4% vs. 72.9%) during the observation period.

CONCLUSIONS: The findings from this observational study may contribute to the understanding of differing healthcare resource utilization patterns by physician specialty.

PCN110 REAL WORLD CLINICAL RESOURCE UTILIZATION OF METASTATIC PROSTATE CANCER PATIENTS IN THE UNITED STATES: RESULTS FROM TWO LARGE CLAIMS DATABASES

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OBJECTIVES: in metastatic prostate cancer (MPC) patients, treatment options include hormonal therapies, chemotherapy, and radiotherapy. This study quantifies the real-world healthcare resource utilization of MPC patients.

METHODS: Health insurance claims from 40 self-insured companies across the US (Employer [E]; 01/1999-02/2009), and from the Medicare 5% (M); 1999-2008) databases were analyzed. Patients with a metastasis diagnosis (ICD-9: 196-199) following 2 prostate cancer diagnoses (ICD-9: 185, V10.46) within 365 days were identified. Patients with other malignant diagnoses at baseline, defined as 365 days prior to metastasis diagnosis (index date), were excluded. Patients were evaluated for baseline medical history, and for chemotherapy, hormonal agents, radiation therapy, and corticosteroids utilization during both baseline and observation periods. Hospitalization rates and prostate cancer-related procedures post index date were also reported.

RESULTS: The study population comprised 11,725 patients (E: 3,227; M: 8,498). Mean age (SD) was 72.8 (10.2) in Employer and 78.1 (7.7) in Medicare. Mean observation period (SD) was 803 (753) days in Employer and 9.2 (8.2) quarters in Medicare. During the baseline period, chemotherapy, hormonal agents, radiation therapy, and corticosteroids were administered to 5%, 52%, 9%, and to 21% of Employer, and to 4%, 79%, 5%, and to 5% of Medicare patients respectively, whereas these interventions increased to 22%, 55%, 39%, and 46% for Employer, and to 21%, 50%, 33%, and 29% for Medicare during the observation period. A total of 66% Employer and 79% Medicare patients were hospitalized post index date. Most patients (E: 92%, M: 98%) had prostate cancer-related inpatient stays, including prostatectomy (E: 39%; M: 80%), computed axial tomography scan (E: 72%; M: 81%), prostate biopsy (E: 47%; M: 54%), X-ray (E: 11%; M: 64%), bone scan (E: 56%; M: 60%), and magnetic resonance imaging scan (E: 35%; M: 37%).

CONCLUSIONS: This observational study describes real-world utilization patterns in patients with advanced prostate cancer.

PCN111 ANALYSIS OF HEALTH OUTCOMES IN BREAST CANCER PATIENTS USING CLUSTER ANALYSIS

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OBJECTIVES: The main objective is to define clusters of patient diagnoses and to use them to analyze breast cancer health outcomes. METHODS: The NIS records of 2005 were used. Patients diagnosed with breast cancer were extracted, and then clusters of strings of all diagnoses per hospitalization were defined. Logistic regression models were used to determine the risk of dying from hospitalization associated with each cluster and ANOVA models were used to evaluate the effect of diagnosis clusters on length of stay. Time series models were used to fit the data and predict one month of total charges and the number of hospitalizations for each cluster. The analysis was performed using SAS, RASFHIR, and RAS Time Series Forecasting System.

RESULTS: Four clusters were found. These clusters had a significant effect on length of stay and in-hospital death. The best time series models were found to be the mean, linear trend and log linear trend. The cluster defined by breast cancer with internal body organ failure was found to be the worst contributor and a longer in-hospital stay and a higher risk of in-hospital death. The one month predicted values for this cluster were found to be 942 hospitalizations and about $26 million in total charges.

CONCLUSIONS: Cluster analysis is a useful method to study health outcomes. Enterprise Miner is an effective software for cluster analysis and Data Mining in general.