CLUSIONS: Consistent with survey findings, prostate cancer patients were significantly more likely to be diagnosed with depression compared to cancer free individuals. Cancer patients with depression accumulated substantially higher expenditures than those without depression. Improved depression screening and treatment may lead to reduced healthcare costs and better quality-of-life for cancer patients.

PCN9

PATIENT CHARACTERISTICS IMPACTING LENGTH OF STAY AND IN-PATIENT CHARGES AMONG US COLORECTAL CANCER PATIENTS

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OBJECTIVES: Variations in disease treatment and costs for US Colorectal Cancer (CRC) patients may be explained by factors beyond characteristics of disease and treatment. Patient characteristics may impact CRC treatment and costs. The aim of the study is to investigate whether patient characteristics such as payor, gender, and age impact inpatient health care resource use and costs for US CRC patients. **METHODS:** Primary study endpoints—hospital length of stay (LOS) and average daily charges (ADC) among CRC patients were examined using data from Health Care Utilization Project (HCUP) Nationwide Inpatient Sample. Hospital discharges from 1993–1999 with principal discharge diagnosis of CRC were included. All charges were expressed in 2000 US dollars. Ordinary least square (OLS) models with log transformation of LOS and ADC were developed. Covariates were: gender, primary payor, age, year, and teaching hospital. Disease-specific risk factors were also included as potential confounders. **RESULTS:** We identified 213,875 CRC discharges. The mean LOS and ADC for the reference groups were: 9.9 days and $2878 for male; 8.5 days and $2944 for HMO; 9.9 days and $2875 for patients aged £54 years; 9.9 days and $2775 for non-teaching hospital; and 11.5 days and $2589 for the year 1993. Semi-log OLS models, after controlling for other covariates, indicated that female, Medicare, Medicaid, self-pay, older people, and teaching hospital were associated with longer LOS ($P < 0.0001$); female, Medicaid, Medicare, self-pay were associated with lower ADC, while teaching hospital was associated with higher ADC ($P < 0.0001$). Adjusted LOS declined at an annual rate of 3.7%, while ADC grew annually at 2.5%. **CONCLUSIONS:** Patient characteristics contributed to the variation of inpatient resource use for CRC patients. This association provides health care policy decision-makers information regarding treatment practices. Further research should examine whether the association is observed for other tumors and disease areas.

PCN10

FIVE-YEAR, DIRECT, MEDICAL COSTS AMONG VETERANS ADMINISTRATION PATIENTS WITH CANCER OF THE SIGMOID COLON

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OBJECTIVE: To determine health care resource utilization and costs over five years among Veterans Administration (VA) patients with cancer of the sigmoid colon. **METHODS:** This retrospective study was limited to veteran patients in New Mexico diagnosed between 1995 and 2000. Demographic information and data for outpatient medications, imaging, chemotherapy, hospitalizations, number of clinic visits, and number of physician visits were collected using VA databases. Costs applied for all services other than outpatient medications and chemotherapy were based upon 2001 Medicaid reimbursement values. Drug costs were based upon 2001 VA prices. **RESULTS:** There were 46 total patients (45 male) identified and data for years 2–5 was available for 35, 21, 19, and 11 patients respectively. The mean age was 72 years (+/–7.78), with a range of 49–87. Twenty-two (48%) patients were in Stage 3 or 4, with lymph node involvement and/or metastases, at first diagnosis. The mean resource utilization per patient was greatest in year 1 ($8,269 ± 7,434), followed by year 2 ($2,792 ± 4,935), then year 5 ($1,496 ± 2,759). The top three cost drivers for years 1 through 3 were hospitalization, chemotherapy, and clinic visits versus hospitalization, imaging, and clinic visits for years 4 and 5. The mean costs for treating Stage 3 or 4 patients were significantly higher ($p < 0.05$) for years 1 and 5, year 1: ($10,959 +/– 9,481 versus $5,867 +/– 3,641) and year 5: ($6,117 +/– 4,688 versus $470 +/– 495). **CONCLUSION:** This initial economic analysis helps identify costs and costs drivers in the treatment of cancer of the sigmoid colon. The study can serve as a model for data collection processes in the VA regarding direct medical costs of cancer of the sigmoid colon. With additional data, pharmacoeconomic modeling research regarding prevention strategies and/or screening methods could be performed.

PCN11

ESTIMATING THE BUDGET AND HEALTH IMPACTS OF LETROZOLE FOR ADVANCED BREAST CANCER

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OBJECTIVES: Letrozole (Femara) offers increased life expectancy with tolerable side effects for the management of advanced breast cancer. The budget and population

health impact of letrozole is of interest to health care systems. Our objective is to estimate the budget and health impact of adding letrozole to a US managed care formulary. **METHODS:** Estimates of increased time on first-line, second-line, and third-line hormone therapy were based on clinical trial data for letrozole. These parameter values, along with demographic, epidemiology, and market share data for a hypothetical managed care organization in the US with 1,000,000 covered lives were entered into an interactive EXCEL spreadsheet model. Outcomes included total annual health plan costs for hormone therapy and for treatment of advanced breast cancer with and without letrozole; per member per month increases in costs associated with letrozole on the formulary; and a proxy measure for life expectancy gain with letrozole on the formulary, increase in average time on hormone therapy. Input parameter values could be changed in the model to capture site-specific characteristics. **RESULTS:** The average duration of first-line therapy was 16.5 months with letrozole compared to 11.9 months with tamoxifen based on the clinical trial data. Assuming market shares of 25% for letrozole as first-line hormone therapy, 37% for second-line, and 20.5% for third-line, the increase in per-member, per-month costs of adding letrozole to the formulary was $0.006 and the increase cost per treated member per month was $8.37. The life expectancy benefits with letrozole included in the formulary were estimated as an increase of 2.7 months on hormone therapy per woman starting endocrine therapy. **CONCLUSIONS:** Adding letrozole to a managed formulary results in significant health benefits at a very low increase per member per month cost (less than $0.01).

PCN12

ECONOMIC BURDEN OF ACTINIC KERATOSIS AND SQUAMOUS CELL CARCINOMA IN AMBULATORY CARE

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OBJECTIVES: The purpose of the study was to estimate the economic burden in ambulatory care of actinic keratosis (AK) and its progressive state squamous cell carcinoma (SCC) noninvasive, and invasive or metastasized SCC. **METHODS:** prevalence study for 1998 of all costs associated with the treatment of these cases using the National Ambulatory Medical Care Survey and an administrative claims database from selected plans from a national health care company was conducted. An expert panel of dermatology and oncology specialists was used to develop reference cases reflecting the different treatment protocols for AK and nonmelanoma skin cancers. These reference cases were used for case identification and claims extraction as related to treatment pattern for each disease state. The resulting analytical file was then used to calculate the economic burden of illness. The data show that the number of visits and the cost per visit increases with age. **RESULTS:** The total ambulatory care costs for AK, SCC and basal cell carcinoma (BCC) combined exceed $2.4 billion/year. AK, SCC and BCC are responsible for over 5 million office visits annually. AK patients average 2.31 visits/year and SCC/BCC patients average 2.84 visits/year. SCC and BCC share the same ICD-9-CM diagnosis code, although different in etiology. BCC has no known precursor lesions while SCC presents a progressive state of AK. Assuming conservatively that the per visit costs for BCC and SCC are the same and that 30% of all BCC/SCC cases are SCC, we estimate that the total ambulatory care costs of AK and its sequel SCC exceed $1.1 billion/year. These costs are ambulatory costs only, and do not include outpatient or inpatient treatment. **CONCLUSIONS:** Ambulatory care spending on AK and SCC is substantial and poses a significant economic burden.

PCN13

PHARMACOECONOMICAL ANALYSIS OF UNFRACTIONATED HEPARIN VERSUS DALTEPARIN IN PATIENTS WITH MALIGNANCIES

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OBJECTIVE: To perform pharmacoeconomical analysis of unfractionated heparin (UFH) versus dalteparin (D) for thrombosis prevention in patients with malignancies. **METHODS:** Randomized open pharmacoeconomical study included 99 patients after operative involvement for cancer of stomach or bowels: 50 in D group and 49 in UFH group. The efficiency of studied drugs was assessed by monitoring soluble fibrin monomeric complexes (SFMC) in blood serum that was considered to be a prognostic factor for thromboembolism. Costs included direct medical expenditures for hospital treatment from payer's perspective. **RESULTS:** Both drugs significantly reduced SFMC after operation, but patients in D group had significantly more expressed decrease in the level of SFMC, than in UFH group ($\delta = 0.003$). In UFH group vs D group costs for medicines per patient for period of treatment were significantly less (median cost 2849.4 rub. vs. 6066.4 rub.; $\delta = 0.000$) but costs for medical services were significantly higher (median 21,770.0 and 19,765.0 rub; $\delta = 0.012$), mainly because of more subcutaneous injections per day. **CONCLUSION:** D therapy leads to significantly more expressed decrease in SFMC level than UFH in cancer patients. At the same time costs per treatment are equal because high expenditures for drugs are compensated by less expenditures for injections. So D is a reasonable alternative to traditional UFH therapy.