is to characterize patient referrals between urologists and medical oncologists/hematologists (MOH) following diagnosis of Stage IV disease. METHODS: A retrospective analysis of linked Surveillance, Epidemiology, and Endpoints (SEER) – Medicare data included patients diagnosed with Stage IV PCa between 1994 and 2002 (age > 65 years). Patients who saw a MOH before the urologist visit were compared to those who did not. Patients were grouped according to MO/M1 substage. Time to physician visit, in months (m), was defined relative to diagnosis in the base case. RESULTS: Application of the inclusion and exclusion criteria resulted in 8840 patients (average age 77 years; 81% White; 68% M1 disease). Seventy-four percent of the patients visited a urologist. Of these, 33% followed up with a MOH. Of these, 41.5% saw the MOH within 6 m, 55.7% within 12 m, and 25% waited >24 m. The mean time to MOH visit was longer when a patient saw a urologist first, compared to when a patient did not see a urologist (20.1 m vs. 5.2 m; p < 0.0001). M1 patients saw MOH sooner than M0 patients: 14.1 m vs. 27.5 m; p < 0.0001. Qualitative results were similar whether conditioned for a urologist visit (16.9 m vs. 29 m; p < 0.0001) or conditioned for ‘no urologist visit’ (14.6 m vs. 11.1 m; p < 0.01). CONCLUSIONS: Similar to other studies, we find that the majority of patients with Stage IV PCa see a urologist post diagnosis. About a third of patients who see a urologist are referred to a MOH and 25% wait more than 2 years to see the MOH. We find that the time to a MOH visit averages 20 months among those first seen by a MOH 5 months among those who do not.

PCN98 IMPACT OF RECENT EWTHROPOIESIS-STIMULATING AGENT (ESA) POLICY CHANGES ON DOPING PATTERNS IN CANCER CHEMOTHERAPY PATIENTS

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OBJECTIVES: To examine epoetin alfa (EPO) and darboepoetin alfa (DARb) drug utilization in cancer chemotherapy patients before and after ESA coverage limitations by the Centers for Medicare and Medicaid Services National Coverage Determination (NCD). METHODS: Medical claims from the Integrated Impact National Managed Care Database were analyzed. Patients included in the study were ≥18 years, had ≥1 claim for cancer, were newly initiated on EPO or DARb, and received chemotherapy during ESA treatment. Patients initiating ESA therapy starting between 8/2006–12/2006 (pre-NCD) were compared with those initiating between August 2007–December 2007 (post-NCD). The number of patients treated, dose per injection, cumulative drug utilization during the first 16 weeks of therapy, and dose ratio (cumulative dose EPO: DARb) were compared between the two groups. RESULTS: A total of 3951 ESA treatment episodes (pre-NCD: 3046, post-NCD: 905). Patients in the post-NCD group were generally older (pre-NCD: 56.2 years; post-NCD: 58.7 years; p < 0.0001) than the pre-NCD group. The number of patients receiving ESA in the post-NCD relative to pre-NCD period decreased by 61% (from 1057 to 411 patients) for EPO and 75% (from 1989 to 494 patients) for DARb. Furthermore, among the subset of treated patients in each period, total dose administered per patient within 16 weeks of treatment initiation decreased by 20% (Units: pre-NCD 251,902 vs. post-NCD 200,613) for EPO and 13% (mg: pre-NCD 917 vs post-NCD 801) for DARb, despite stable dose per injection pre- and post-NCD. The EPO: DARb dose ratio was higher in the pre-NCD group (2:1) than the post-NCD group (2:3). CONCLUSIONS: Recent changes to ESA coverage policy appear to have decreased ESA utilization and the corresponding EPO: DARb dose ratio. Further research is warranted to assess this impact on the demand for blood transfusions.

PCN100 EVALUATING THE EFFECTIVENESS OF PRIMARY PROPHYLACTIC G-CSF UTILIZED AS AN ADJUNCT TO CHEMOTHERAPY IN BREAST CANCER PATIENTS

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OBJECTIVES: More and more evidences support the granulocyte colony stimulating factor (G-CSF) use as a primary prophylaxis in breast cancer patients treated with high risk of febrile neutropenia(FN). Although National Comprehensive Cancer Network have the practice guidance, Bureau of National Insurance in Taiwan doesn’t approve the claim for the indication. The aim of this study was to evaluate the effectiveness of G-CSF for preventive treatment of FN. METHODS: The retrospective study was conducted from January 1, 2001 to December 31, 2006. Breast cancer patients treated with taxanes-based regimens simultaneously combined with primary prophylactic G-CSF (Neupogen; Gilead) were recruited in this study. The three regimens were TEG-P and TE (C, cyclophosphamide; E, epirubicin; F, fluorouracil; P, paclitaxel; T, docetaxel). ANOVA and Chi-square were used to analyze the relationship of the decline of incidence of FN by using primary G-CSF prophylaxis between different regimens. RESULTS: Finally 128 patients were eligible in the study. The results show the baseline laboratory data of breast cancer patients in TEG group is in normal range compared to others. However, the laboratory data of TEG group appeared worse than others after G-CSF was given at the dose of 5 mg/kg. Under the primary prophylactic G-CSF policy, the incidence of FN in TEG group was higher than TE group (4.7% versus 0.6%), but no FN appeared in FE-P regimen. It showed that TEG regimen have more bone-marrow suppression effect than others. Our finding also indicated a better results decrease FN by using G-CSF as a prophylaxis as compared to other published studies.episodes of FN in our study were lower than published (2.4% versus 7.5%) CONCLUSIONS: The study showed the beneficial effect of declining the occurrence of FN. We hope that the use of primary prophylactic G-CSF should be considered as a guideline for clinical practice to improve patient's quality of life.

PCN101 BREAST CANCER SCREENING OR DIAGNOSTIC PROCEDURES IN POSTMENOPAUSAL WOMEN INITIATING OSTEOROPESIS MEDICATIONS

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OBJECTIVES: This study evaluated the use of breast cancer (BC) screening or diagnostic procedures in postmenopausal women (PMW) initiating osteoporosis medications. METHODS: Women 50 years and older with at least one claim for raloxifene (RLX), bisphosphonates (BS) or calcitonin (CT) in 2005 or 2006 and continuous enrollment in the previous and subsequent 12 months were identified in a large national commercial and Medicare claims database. PMW initiating RLX were compared to PMW initiating BS and CT in terms of BC screening or diagnostic procedures (mammogram, breast MRI, ultrasound, breast biopsy) as well as age, provider specialty, fractures, breast screening and comorbidities. RESULTS: Treatment-naive PMW aged 55–59 years were more likely to initiate RLX than other age groups (Adjusted Odds Ratio (AOR) = 1.864 vs. aged 70+ years; p < 0.0001). RLX patients were younger than BS and CT patients (mean age 63 years [RLX], 66 years [BS], 72 years [CT]; p < 0.05). Treatment-naive PMW with at least one BC screening or diagnostic claim within the 12 months prior to therapy initiation than therapy-naive BS or CT patients (RLX 61%, BS 57%, CT 41%; p < 0.05) and were more likely to have an increased frequency of mammograms in the 12 months after therapy initiation (RLX 18%, BS 16%, CT 15%, p < 0.05). CONCLUSIONS: In this study population, PMW who initiated RLX treatment were more likely to have had BC screening or diagnostic procedures prior to initiating therapy than PMW on other OP medications. This data suggest that PMW who initiate RLX may have greater perceived or actual risks for BC than PMW who initiate on other therapies.

PCN102 IMPACT OF RADIOTHERAPY SEQUENCE WITH SURGERY ON SURVIVAL FOR PATIENTS WITH RESECTABLE COLORECTAL CANCER

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OBJECTIVES: Preoperative or postoperative radiotherapy has been used to decrease local recurrence and thereby improve survival. Previous studies comparing these two types of treatments have given conflicting results. The study aims to compare the efficacy of preoperative versus postoperative radiotherapy in terms of survival for resectable colorectal cancer (Stage II and III). METHODS: The study has been carried out on patients with resectable colorectal cancer in stage II and III. The study population was retrieved from the data recorded by National Cancer institute, Surveillance Epidemiology and End Results (SEER) 17 registries data between year 1999 and 2005. Survival analysis was used to assess the patients exposed to radiotherapy as an adjuvant therapy before or after surgery and a comparison in the log rank test. RESULTS: A total of 12,134 patients were subjected to radiotherapy as adjuvant therapy. Out of which 7481 were administered with radiation after surgery and 4653 patients with radiation prior to surgery were taken into consideration for the study. Patients who have been administered radiotherapy after surgery have shown longer survival time (43 months) than patients administered with radiotherapy before surgery (33 months) (p = 0.000). The survival time difference may also be attributable to the Stage of the Cancer. The survival time for Stage III patients receiving radiation after surgery is longer than patients administered with radiation before surgery (43 months vs. 29 months; p = 0.000). No significant survival difference was observed in Stage II patients. CONCLUSIONS: The study should assist the clinician in forming a preliminary opinion for further investigations pertaining to the sequence of radiation with surgery as adjuvant therapy for resectable colorectal cancer. Further studies should also investigate the influence of demographics, dose of radiation and co-morbidity on survival time in the resectable colorectal cancer cases.

PCN103 SCREENING MAMMOGRAPHY TRENDS AMONG WOMEN IN A FREE-FOR-SERVICE MEDICAL POPULATION

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OBJECTIVES: Screening mammography is regarded as the gold standard for identifying breast cancer in early stages. The American Cancer Society (ACS) recommends annual screening mammography for all women ≥40 years of age with an average risk of breast cancer for early cancer detection. Mammography rates generally tend to be lower in FN than in TM. The purpose of this study was to determine annual mammography screening trends from 2000 to 2005 among free for-service women recipients enrolled in a state Medicaid program based on demographic and geographic characteristics. METHODS: Fee-for-service medical claims for all women enrolled in the state Medicaid program from January 1, 2000 to December 31, 2005 were used.
Abstracts

PCN106

THE IMPACT OF CANCER SCREENING GUIDELINE INFORMATION ON CANCER DETECTION

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OBJECTIVES: To understand the impact of U.S. cancer screening guideline information on U.S. cancer screening and cancer detection. METHODS: We use an instrumental variables research design to identify the effects of breast, colorectal and prostate cancer screening guideline information on cancer detection. U.S. guidelines specify an age at which screening should begin, implicitly recommending that screening not occur for asymptomatic individuals below that age. We first estimate compliance with guideline information from the difference in age-specific screening rates just below and above the ages at which clinical guidelines recommend that screening begin. We then perform instrumental variables regression analyses to estimate the effect of guideline induced screening on cancer detection. U.S. cancer screening and incidence data (years 2000–2005) are derived from the Behavioral Risk Factor Social Survey, the National Health Interview Survey and the SEER Program. RESULTS: Age-specific screening rates from national BRFSS NHIS data indicate that breast, colorectal and prostate cancer screening in the last year rise by 55%, 88% and 29% precisely at the guideline recommended ages (age 40 for breast cancer and age 50 for colorectal and prostate cancers). Results from instrumental variables analyses indicate that a 1% point increase in screening at the guideline recommended ages leads to an additional case of breast and colorectal cancer detected per 100,000 individuals. The substantial increase in prostate cancer screening did not have an identifiable effect on prostate cancer detection. CONCLUSIONS: We used an instrumental variables strategy to identify the impact of guideline information on cancer screening and detection. Guideline information induces substantial increases in breast, colorectal and prostate cancer screening but these changes only lead to increases in breast and colorectal cancer detection. These results suggest that reductions in the use of the PSA test will result in substantial cost savings with minimal reductions in health.

PCN108

IMPACT OF NEW DRUGS AND BIOLOGICALS ON TREATMENT PATTERNS FOR COLORECTAL CANCER

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OBJECTIVES: There have been a number of new drugs and biologicals approved by the FDA in the last five years for the treatment of colorectal cancer (CRC). Objective of this study was to compare the initial treatments and overall medical costs for working-age persons with CRC before and after the introduction of these treatments. METHODS: This retrospective cohort study was based on a large administrative database and included patients with an ICD-9 diagnosis of CRC. We looked at individuals treated for CRC in the period prior to introduction of new chemotherapy and biological agents (January 2002–December 2002) and the period after the introduction of two biologicals (bevacizumab and cetuximab) and one chemotherapy agent (oxaliplatin, June 2004–May 2005). We assigned patients to stage value and treatment regimen. We identified 2345 patients (61% Stage III) with CRC in the pre-period and 4413 patients (59% Stage III) with CRC in the post-period. We estimated mean total medical costs in the pre- and post-periods using the Kaplan-Meier sample average estimator. RESULTS: The predominant treatment regimen in the pre-period for stage III CRC was 5-FU/Leucovorin (77%), while the pre-dominant regimens the post-period were 5-FU/Leucovorin (36%) and FOLFOX (35%). The pre-dominant regimen for stage IV CRC was IFIL/FOLFIRI (50%), while the most common regimens in the post-period were IFL/FOLFIRI (22%) and FOLFOX (23%). Additionally, over 14% of the patients received a biological agent in the post-period. There was also a significant increase in total medical costs over this time period. The mean costs for Stage III and Stage IV CRC patients increased by $10,187 in the pre-period to $18,049 in the post-period (p < 0.001). CONCLUSIONS: The introduction of new treatments for CRC significantly changed the treatment patterns for both Stage III and Stage IV CRC. These changes in treatment were accompanied by a significant increase total medical costs.

PCN109

BREAST CANCER PREVALENCE AND HEALTH CARE UTILIZATION AND COST TRENDS AMONG FEE-FOR-SERVICE FEMALE RECIPIENTS IN A STATE MEDICAID PROGRAM

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OBJECTIVES: The occurrence of breast cancer screening in women was considered significant morbidity and mortality in breast cancer study in considerably economic impact on patients, health care payers, and society. The purpose of this study is to determine the trends in the prevalence of breast cancer and associated health care utilization and costs among an indigent population covered by a state Medicaid program. METHODS: We used retrospective analysis of a state Medicaid fee-for-service administrative claims dataset

PCN105

GUIDELINES AND CANCER SCREENING IN THE UNITED STATES AND CANADIAN HEALTH SYSTEMS

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OBJECTIVES: To understand Canadian and U.S. health system compliance with cancer screening guideline information with respect to the age of screening initiation. METHODS: Canadian and U.S. cancer screening generally identify ages when cancer screening should be initiated. We use a regression discontinuity research design to identify any increases in Canadian and U.S. cancer screenings in the past two years at the guideline recommended ages. Multivariate logistic regression analyses were performed using breast, prostate and colorectal cancer screening within the past two years as the dependent variables of interest. Logistic regression models also adjust for relevant demographic and socioeconomic characteristics. We analyze screening for adult individuals from the 2006 Behavioral Risk Factor Social Survey, 2003 National Health Interview and 2003 and 2005 Canadian Community Health Surveys. RESULTS: Graphical and logistic regression analyses identified large statistically significant increases in cancer screening rates precisely at the U.S. guideline recommended screening initiation ages. U.S. breast, colorectal and prostate screenings increase by 33%, 33% and 25% precisely at the guideline recommended ages (age 40 for breast and age 50 for colorectal and prostate cancers). Similarly in Canada we found a 20% increase in breast cancer screening rates precisely at the Canadian guideline recommended age for screening initiation. We did not find a discrete increase in the Canadian colorectal cancer screening rate at the Canadian recommended screening age of 50. CONCLUSIONS: U.S. and Canadian cancer screening utilization is generally consistent with each country’s guideline recommendations regarding age. The cross-country differences in screening identified in this study can potentially explain cross-country differences in cancer mortality rates and affect interpretation of cross-country cancer statistics. The similarity of other OECD cancer screening guidelines to Canadian screening guidelines suggests that results from this study have broader implications for comparability of cancer statistics between U.S. and other OECD countries.