The risks were statistically different in different type of lung cancers: adenocarcinoma 1.81 (1.23 to 2.66), squamous cell carcinoma 7.07 (2.34 to 21.38), and small cell lung cancer 7.98 (4.22 to 15.11). The increased amount of smoking increased the risk of lung cancer (coef. 0.27, 0.03 to 0.53). No significant dose-response was found between the risk of lung cancer and the duration and initiating age of smoking. **CONCLUSIONS:** The association between smoking and lung cancer has been ascertained in the Chinese population. Pronounced heterogeneity in risks of lung cancer was found in different type of lung cancer and amount of smoking.

**PCN14**

**EFFECTIVENESS ANALYSIS OF CHEMOTHERAPY PLUS CETUXIMAB COMPARED WITH CHEMOTHERAPY ALONE IN THE TREATMENT OF METASTATIC COLORECTAL CANCER IN TAIWAN**

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**OBJECTIVES:** The aim of this study was to compare the effectiveness and survival rate of cetuximab plus chemotherapy with the traditional chemotherapy alone in the treatment of metastatic colorectal cancer. (mCRC). **METHODS:** This is a retrospective observational study which was conducted from January 2004 to December 2008. Hospitalized patients diagnosed with mCRC and treated with chemotherapy regimen of FOLFIRI (irinotecan/ 5-fluorouracil/leucovorin) plus cetuximab or patients treated with FOLFOX or FOLFOX (oxalaeplatin/5-fluorouracil/leucovorin) chemotherapy regimen alone for a course of 3 years were recruited. The medical records for all patients recruited were evaluated by clinical pharmacist. T-test was used for analysis. **RESULTS:** A total of 143 patients were identified. Sixty-five patients were treated with FOLFOX (irinotecan/ 5-fluorouracil/leucovorin) plus cetuximab and seventy-eight patients were treated with FOLFOX. Forty-six patients and 50 patients treated with FOLFOX combined with cetuximab were survived about 17.3 months, survival rate was 64%; whereas, total of 65 patients treated with FOLFOX or FOLFOX alone were survived about 12.9 months, survival rate was 41%. By using chemotherapy, combined with cetuximab, the survival rate was increased about 4.4 months as compared to the chemotherapy alone. The difference of survival rate between two groups is statistically significant. (p value is 0.018). **CONCLUSIONS:** The preliminary result indicated that chemotherapy plus cetuximab is more effective as compared to chemotherapy alone for mCRC patients. However, cetuximab is more expensive than the other target chemotherapeutic drugs in our country, therefore, evaluation on direct medical costs of two regimens is indispensable and data will be completed in the near future.

**PCN15**

**ENDOMETRIAL CARCINOMA RISK OF VAGINAL ESTROGEN IN MEDICAIT WOMEN WITH ATROPHIC VAGINITIS**

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**OBJECTIVES:** Recommended treatment duration of atrophic vaginitis in postmenopausal women using vaginal estrogen (VE) is currently 6 months, with no further length of clinical trials conducted to date, due to concerns of potential development of endometrial carcinoma. In practice, many women use VE longer. This study examines the association between VE use and risk of endometrial carcinoma over a 3 year follow-up period among Medicaid enrollees. **METHODS:** A retrospective cohort study was conducted using North Carolina Medicaid prescription and medical claims between January 1998 and December 2007. The study included women aged 18–64 years with a prescription claim for VE (cream, tablet, and ring forms) or a diagnosis of atrophic vaginitis (identified by ICD-9 code 627.3). Demographic factors included age and race (African American, white, or other). Comorbidity risk adjustment was determined using the Charlson-Deyo method. Multiple logistic regression was performed to assess the association of VE use and endometrial carcinoma adjusting for age, race, and comorbidities. **RESULTS:** A total of 770 patients prescribed VE (mean age 54.9 years) and 881 patients diagnosed with atrophic vaginitis but not treated with VE (mean age 49.4 years) were identified in the database. Ten cases of uterine carcinoma were identified among the VE patients; 11 cases among women not prescribed VE. Logistic regression results showed no significant difference in the occurrence of endometrial carcinoma between women on VE therapy and those not on VE therapy (OR = 1.11, 95% CI: 0.47–2.65, P = 0.814). Older age was the only significant predictor of uterine carcinoma (OR = 1.11, 95% CI: 1.03–1.20, P = 0.008); i.e., for a ten-year increase in age, odds of endometrial carcinoma increased by a factor of 2.8. **CONCLUSIONS:** With three years of follow-up showed no association between VE exposure and endometrial carcinoma. Increasing age was found to be the only significant risk factor.

**PCN16**

**COST OF MANAGING SIDE EFFECTS OF FIRSTLINE BEVACIZUMAB (BEV) + LOWER-DOSE IFERRERON-ALPHA2A IN PATIENTS WITH METASTATIC REINAL CELL CARCINOMA (mRCC) IN GERMANY, FRANCE, AND UNITED KINGDOM**

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**OBJECTIVES:** The phase III trial AVOREN demonstrated that BEV + interferon-alpha2a (IFN) prolongs progression-free survival compared with IFN + placebo in patients with untreated mRCC [Escudier, Lancet 2007]. The protocol specified that the recommended dose of IFN (9MIU 3x/week) could be lowered to 3 or 3MIU for grade ≥3 adverse events (AEs) attributable to IFN or other investigator-defined reasons. A retrospective analysis of AVOREN showed that lower-dose (LD) IFN in combination with BEV improves tolerability and maintains clinical benefit [Michaël, Ann Oncol 2008]. We report here the costs of managing side effects of BEV + LD IFN

**PCN12**

**TIMING OF PHYSICIAN VISITS AND THE IMPACT ON SURVIVAL AMONG SEER-MEDICAL PATIENTS WITH STAGE IV PROSTATE CANCER**

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**OBJECTIVES:** The timing attention has been paid to team-based approaches to the management of patients with advanced prostate cancer (PCa). Is it not known whether the timing of specialist contacts relative to treatment initiation is associated with survival. This study examines whether patients with visits to a medical oncologist/ urologist (MOH) at treatment have better survival outcomes than those who see a MOH after treatment begins. **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) who received treatment. Treatment was defined as the receipt of orchidectomy, chemotherapy, or radiation at any time following diagnosis. A referral was defined as a post-diagnosis visit to an urologist followed by a visit to a MOH. The key covariate identified patients referred prior to treatment initiation. Colon cancer – specific mortality events controlled for potential confounders including demographic, clinical, continuity-of-care, and ecological measures. **RESULTS:** A total of 2075 patients with Stage IV PCa met the inclusion criteria. The average age in the sample was 75 years and 83% were White. Seven percent of patients visited both specialists before receiving treatment. Referral visits prior to the start of treatment were associated with a reduction in the relative risk of disease – specific mortality (HR: 0.71, 0.53 – 0.90, p = 0.002) in the full sample and in a propensity-matched sample (HR: 0.60, 0.45 – 0.90, p = 0.006). **CONCLUSIONS:** As treatment options for advanced stage PCa evolve, patients may benefit from contact with a team of specialists. We find that there is a survival benefit associated with referrals that initiation. The results suggest that the timing of specialist visits is important for PCa survival. Further studies on referral patterns are needed to validate these results.

**PCN3**

**THE PREVALENCE AND COSTS OF ADVERSE METABOLIC EFFECTS OF ATYPICAL ANTIPSYCHOTICS IN SCHIZOPHRENIC PATIENTS**

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**OBJECTIVES:** Atypical antipsychotics are currently the most frequently prescribed class of drugs for schizophrenia. These drugs appear to be associated with varying degrees of metabolic adverse effects. We conducted a retrospective clinical study to evaluate the adverse metabolic effects of antipsychotic medications in schizophrenic patients in Taiwan population. **METHODS:** This is a retrospective observational study. A total of 431 outpatients who were diagnosed with schizophrenia and taken clozapine or olanzapine or risperidone or haloperidol for more than one year were included in this study. We excluded those who took other drugs known to affect glucose metabolism (including α, β-blockers, thiazide diuretics, phenytoin, valproate, and corticosteroids), and those who were diagnosed with diabetes mellitus and hyperlipidemia at the initial time of study. The changes of blood lipids and fasting blood glucose levels noted in the medical records were reviewed and analyzed. **RESULTS:** The results indicated that 298 outpatients showed weight gain after 6–8 months of medications. 83.3% (6072) of risperidone-treated patients had experienced significant weight gain as compared with 48.8% (4082) of clozapine and 4% (250) haloperidol treated patients (p < 0.0001). The potential risk of increased fasting blood glucose, cholesterol, and triglyceride levels for risperidone-treated patients were 50.5% ± 4.2%, 11.7% ± 5.6% and 53.8% ± 4.2%, respectively. 48 patients need additional drugs to regulate the increased metabolic levels, such as atorvastatin for increased triglycercide levels and glipizide for increased blood glucose level. The extra medications expensive used to regulate the adverse effect was about NT 13 million each year. **CONCLUSIONS:** The atypical antipsychotics drugs can cause adverse metabolic effects. American Diabetes Association (ADA) suggested to monitor patients’ body weight, fasting blood glucose, and lipid profile for those who are prescribed antipsychotics. Additionally, the diet control and regular exercise should be suggested to patients who have already being getting weight in the treatment of atypical antipsychotics.