sis. Late-stage diagnosis was associated with lower median income and lower provider-to-case ratio. Among all comorbidities present, the presence of congestive heart failure, paraneoplastic failure, metastatic cancer, coagulation deficiency, weight loss, fluid and electrolyte disorders, blood loss anemia, deficiency anemias, alcohol abuse, pneumococcal pneumonia, protein calorie malnutrition, disturbances of amino acid metabolism, brain and other neurological disorders were risk factors of late-stage diagnosis. CONCLUSIONS: Overall, late-stage diagnosis was associated with advanced age that suggest lack of access to care. Although comorbidity is often associated with increased health care utilization, the association of comorbidity with late-stage prostate cancer diagnosis suggests that individuals with significant comorbidity may not be offered routine prostate cancer screening, and that focus is directed toward management of presenting health problems rather than routine cancer screening.

PCN4

EFFECT OF TREATMENT DELAYS ON LATE-STAGE PROSTATE CANCER SURVIVAL

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OBJECTIVES: To examine whether delay in receiving treatment for late-stage prostate cancer were related to adverse survival outcomes. METHODS: The Florida Cancer Data System was used to extract information on men diagnosed with prostate cancer with their demographics, primary health insurance payer at diagnosis, treatment and all-cause death. Census-tract level socioeconomic status was extracted from Census 2000 and linked to cancer data. Comorbidity following Elixhauser and Analyse de seuil de niveau provider-to-case ratio was measured as the number of days between initiation of first treatment and death? Descriptive statistics were performed. Log-rank test was conducted to evaluate the relationship between predictor variables and survival. Kaplan-Meier estimation was used to generate survival curves. Cox proportional hazards regression model was used to identify independent factors to delay. RESULTS: Overall, 10330 men, average age of 69 had complete vital status, date of treatment and survival time greater than zero were diagnosed with late-stage prostate cancer in Florida. Of these, 3331 (32 %) died. The median was 286 days for survival and 39 days between the date of diagnosis and initiation of first treatment. Treatment delay was more likely to increase survival. Compare to patients in active surveil-

lance, those receiving other treatment options had an increased overall survival. Patients with comorbidities, diagnosed at older age, or uninsured were more likely to have worse survival. Living in a census tract with higher educational attainment was associated with better overall survival. CONCLUSION: Further investigation is needed to understand the reasons for disparity in prostate cancer survival so that interventions can be implemented to increase prostate cancer screening. The asso-

ociation between changes in patterns of care, and treatment delay need to be elucidated.

PCN5

CANCER DURING PREGNANCY: CLINICAL AND ECONOMIC CHARACTERISTICS ASSOCIATED WITH INFANT CASES IN THE UNITED STATES

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OBJECTIVES: To assess clinical characteristics and national charges for maternal hospitalizations and complications associated with cancers during pregnancy in the United States. METHODS: This population-based retrospective study of inpa-

tient preterm complications or delivery and economic burden associated with can-

cer diagnosed during pregnancy utilized Agency for Healthcare Research and Qual-

ity (AHRQ) Healthcare Cost and Utilization Project (H-CUP) Nationwide Inpatient Sample (NIS) data from 2005-2009. Inclusion criteria included ≥18 years, any ma-

ternal diagnoses or procedures on record, and any diagnosis of cancer. Descriptive analyses were conducted to report the most common forms of cancer, complica-

tions of pregnancy, and comorbidities. Generalized linear models including multi-

variate logistic and gamma regressions were employed to assess outcomes of pre-

term births and charges, respectively, based upon patient demographics, primary health insurance payer at diagnosis, and Gray competing risk modeling. The independent regression variables included index, calendar year at diagnosis, and hospitalization (yes or no), surgery (yes or no), and comorbidities and Gray competing risk modeling. The independent regression variables included:

- Prostate cancer, solid tumors, and pre-ecampsia/ eclampsia were significantly
- (p<0.05) associated with preterm delivery. Increases in total charges were significa-

ntly associated with metastatic cancer, chronic blood loss anemia, hyper tension, and fluid/electrolyte disorders. CONCLUSIONS: Some 4986 births were observed among pregnant adults with cancer during 2005-2009, with a large proportion in vol ung premature delivery. Continued research is warranted concerning the man-

agement and long-term implications of cancer and its treatment upon both moth-

ers and their surviving children.

PCN6

ARE QALY GAINS FOR NEW PHARMACEUTICALS INCREASING IN CANCER BUT NOT OTHER DISEASES?

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OBJECTIVES: Spending on pharmaceuticals as a proportion of total health care spending is increasing. It is unclear, however, if this increase is translating into increases in QALYs relative to standard care over time. Our objectives were to evaluate incremental QALY gains reported in cost-utility studies published from 2000 to 2010, and to compare findings for cancer and non-cancer related pharmaceuticals. METHODS: We used the Tufts Medical Center Cost-Effectiveness Analysis Registry (www.cearegistry.org) to identify cost-utility ratios for pharmaceuticals published from 2000-2010. We considered incremental QALY gains, pub-

lication year, and source of study funding (drug manufacturer or other) for three sets of analyses: all pharmaceuticals (n=2,777), cancer-related pharmaceuticals (n=235), and non-cancer related pharmaceuticals (n=2042). We used multivariate linear regression to evaluate the relationship between incremental QALY gains (dependent variable) with study publication year (independent variable). We re-

limited p values below the 0.05 level. A minimum sample of this population was per-

formed.

RESULTS: Adjusting for source of study funding, in terms of the relationship between incremental QALY gains and study publication year: for all pharmaceuticals, the estimated coefficient for publi-

cation year was negative (-0.015, p<0.001); for non-cancer related pharmaceuti-

cals the estimated coefficient for publication year was negative, (-0.022, p=0.017); and, for cancer related pharmaceuticals, the estimated coefficient for publication year was positive (0.069, p=0.001). CONCLUSIONS: The results suggest that, in contrast to the effectiveness of non-cancer related pharmaceuticals, the effective-

ness of cancer-related pharmaceuticals show increasing gains over time. That is, incremental QALY gains for cancer-related drugs are increasing.

PCN7

LIFE EXPECTANCES AND PROGNOSTIC FACTORS OF SURVIVAL IN PATIENTS WITH DIFFERENT TYPES OF CANCER UNDER PROLONGED MECHANICAL VENTILATION: A NATION-WIDE ANALYSIS OF 5,138 CASES DURING 1998-2007

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OBJECTIVES: The aim of this study was to determine survival rate, life expectancy, quality-adjusted life expectancy (QALE), and prognostic factors of patients of different organ-systems undergoing prolonged mechanical ventilation (PMV). METHODS: We used data from the National Health Insurance Research Database (NHIRD) of Taiwan, year of 1998 to 2007, and linked with the National Mortality Registry to ascertain the more appropriate life span. Data in the NHIRD were per-

formed, and subjects who had continuously undergone mechanical ventilation for longer than 21 days were enrolled in this study. We linked our dataset with the registry of cancer under catastrophic illnesses of NHIRD. The life expectancies of different organ-systems were estimated using a semi-parametric method with assuming constant excess hazard and bowing survival function of general pop-

ulation from the vital statistics of Taiwan. Multivariate proportional hazard model was constructed to assess the effect of different prognostic factors, including age, sex, organ-system, comorbidity level, presence of life support. Data of life support were taken from a sample of 142 patients under PMV and measured with EQ-5D, which were classified into partial and poor cognitions. RESULTS: The anal-

ysis of 5138 cancer patients undergoing PMV revealed the median survival was 1.37 months with a one-year survival rate of 14.3%. Head and neck cancer patients seemed to survive the longest. The overall life expectancy was 1.21 years with estimated QALE ranged from 0.16 to 0.36 quality-adjusted life years for patients with poor and partial cognitions, respectively. Metastatic cancer status, cancer stage long and liver significantly predict a shorter survival independently. CONCLUSIONS: Cancer patients with PMV had a poor long term survivor. Palliative care should be considered early in these patients with such a condition, especially when metastasis occurred.

PCN8

PRIMARY ANDROGEN DEPRIVATION THERAPY VERSUS RADICAL PROSTATECTOMY IN SEER-Medicare DATASET: A COMPARATIVE EFFECTIVENESS ANALYSIS OF RETROSPECTIVE COHORTS

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OBJECTIVES: To examine the comparative effectiveness of primary androgen de-

privation therapy (PADT) and radical prostatectomy (RP). METHODS: Male patients with localized prostate cancer (T1-T2, N0, M0) were identified in the SEER-Medicare database from January 1998 to December 2007. Patients were 66-74 years old, with- out currently recommended cancer screening, and had PADT initiation or RP within 6 months after the first recorded diagnosis of prostate cancer in the database. PADT-treated patients were 1:1 matched to the RP-treated patients via propensity score (PS) matching. The overall survival from diagnosis to death was analyzed using Cox proportional hazards models, prostate cancer specific survival using Fine and Gray competing risk modeling. The independent regression variables included age at diagnosis, race, marital status, census regions, urban residence, clinical cancer stage, Gleason score, prostate specific antigen level, Charlson comorbidity index, calendar year at diagnosis, and hospitalization (yes or no), surgery (yes or no) and outpatient visit (yes or no) during one year baseline period. RESULTS: The PS-matched sample size was 3432 with mean age of 66.0 years. The baseline char-