PCN45

EFFECT OF AGE ON PREFERENCES FOR HEALTH OUTCOMES IN PROSTATE CANCER

Krahn MD[1], Bremner K[1], Tomlinson G[2], Alibhai S[3], Laporte A[4], Naglie G[5]

[1]University Health Network, Toronto, ON, Canada, [2]University of Toronto, Toronto, ON, Canada, [3]Unviersity Health Network, Toronto, ON, Canada, [4]Department of Health Policy, Management, and Evaluation, University of Toronto, Toronto, ON, Canada, [5]University Health Network, Toronto, ON, Canada

OBJECTIVE: To determine age-related variations in prostate cancer (PC) patients' utilities. PC is a disease of older men. Decisions regarding its management are sensitive to preferences for outcomes. **METHODS:** We derived a population-based sample of PC patients diagnosed in 1992, 1997 or 2002 from the Ontario Cancer Registry. Patients (n = 1531). Consenting survivors were mailed questionnaires, includingdemographics, Health Utilities Index (HUI2/3), and UCLA Prostate Cancer Index (PCI). We computed Pearson's correlations between HUI3 utility and PCI scores in all patients and between age quartiles. We used regression to test for interactions, namely linear trends in HUI3-PCI slopes across age quartiles. **RESULTS:** The first 289 patients returned questionnaires in 2004. Mean age was 71.6 years. Primary treatments, received 1–11 years prior, were prostatectomy (46%), radiation (32%), hormones only (12%), and watchful waiting (10%). Mean HUI3 utility was 0.79, SD = 0.24. HUI3 and sexual function scores decreased with age ($p < 0.001$), but urinary function improved ($p = 0.01$), with no changes in bother scores. For HUI3 and sexual function, $r = 0.43$ ($p < 0.001$) for 44–65 yr olds, and $r = 0.14$ ($p = 0.28$.) for 78–92 yr olds, $p = 0.35$ for interaction. For HUI3 and sexual bother, $r = 0.41$ for 44–65 yr olds, and $r = 0.09$ for 78–92 yr olds, $p = 0.06$ for interaction. Correlations between HUI3 and urinary function increased with age (from 0.24 to 0.43, $p = 0.04$ for interaction). Similar age effects were observed for urinary bother. There were no age-related trends for correlations between HUI3 and bowel function or bother. Sexual and urinary function scores became less strongly related to their corresponding bother scores as age increased ($p < 0.002$). **CONCLUSIONS:** Although sexual dysfunction increased with age, it became less bothersome and had less impact on utility. However, older patients' quality of life was more affected by urinary dysfunction. Modelers and policymakers may need to adjust utilities for PC health states for patient age.

PCN46

ONLINE REPORTING OF TOXICITY SYMPTOMS BY LUNG CANCER PATIENTS DURING CHEMOTHERAPY

Basch E, Barz A, Kris M, Culkin A, Schrag D

Memorial Sloan-Kettering Cancer Center, New York, NY, USA

OBJECTIVES: To determine whether lung cancer patients can be engaged to report their own toxicity-related symptoms during chemotherapy. **METHODS:** The NCI's Common Terminology Criteria for Adverse Events (CTCAE) schema for nine common symptoms was adapted into a web-based patient-reporting system, accessible from computers in outpatient clinics and from home computers. Outpatients with lung malignancies beginning standard chemotherapy regimens were invited to enroll. During a 16-week observation period, participants were encouraged to login and report symptoms at each follow-up visit, or alternatively to access the system from home. Severe toxicities entered into the system (grade 3–4) triggered emails to the primary clinical team. **RESULTS:** A total of 108 patients were approached, with 23 refusals due to anxiety (n = 4), unwillingness to use a computer (n = 5), or no perceived benefit (n = 6). All 93 enrollees completed an initial login. At each subsequent appointment, most enrollees (80–85%) reported symptoms using the online system, with a mean of 7 visits per patient (range 1–16). A total of 79/93 (85%) logged in at more than two-thirds of appointments. Only 12/93 (13%) voluntarily logged in at least once from home, with a mean of 10 logins among home users versus 6 among non-home users. Utilization was significantly associated with prior Internet experience but not with age, cancer type, ECOG score, income, or education level. A total of 121 severe toxicities were entered into the system, including 17 from home users, which were delivered via email to treating clinicians for consideration of interventions. **CONCLUSION:** Lung cancer patients are capable of reporting symptoms experienced during chemotherapy via the web, but may be less willing than other populations to use computers, and less apt to self-report from home. Assessment in other populations, in a clinical trial setting, and comparison of patient versus clinician symptom reporting are being performed in separate studies.

CARDIOVASCULAR DISEASE—Clinical Outcomes Studies

PCV1

USING ANTI-COAGULANTS AS PROPHYLAXIS FOR DVT/PE

Burleigh E[1], He J[2], Wang C[2], Mahoney A[3]

[1]Solucient, LLC, Verona, NJ, USA, [2]Solucient, Berkerley Heights, NJ, USA, [3]Solucient, LLC, Berkeley Heights, NJ, USA

OBJECTIVE: Anti-Coagulant therapy is often prescribed for patients in the hospitals who are at high risk for a deep vein thrombosis or pulmonary embolism (DVT/PE). The purpose of this study is to determine if there are better outcomes for patients who start anti-coagulant therapy on day one as opposed to later in their stay. **METHODS:** A retrospective study was conducted with 391,253 patients who had Lovenox discharged between January 2001 through June 2005 extracted from Solucient's ACTracker Database and grouped into a cohort of 206,456 patients who received the drug on day one and a group of 184,797 patients who received the drug afterwards as the comparison group. Economic and clinical outcomes were measured with the following metrics by different risk adjust methods 1). length of stay (LOS), ICU LOS, and total costs within risk adjusted RDRGs, as well as 2). the results of Risk-Adjusted Mortality (RAMI) and Complication (ECRI) indices. **RESULTS:** In comparing those patients who received an anti-coagulant on the first day versus anytime after, we found that day one treated patients had significantly shorter weighted average and ICU weighted average LOS with a difference of 0.87 days ($p < 0.0001$) and 0.40 days ($p < 0.0001$) on average respectively. A significantly decreased weighted average total cost in patients receiving the drug earlier was also observed with a difference of $806 ($p < 0.0001$). In clinical perspectives, earlier treated Lovenox patients were found to have both lower mortality index (0.96 vs. 1.04, $p < 0.0001$) and lower complication rates (0.94 vs. 1.05, $p < 0.01$). **CONCLUSION:** Patients who received prophylaxis anti-coagulant therapy on their first day of an inpatient stay have better economic and clinical outcomes than those who receive anti-coagulants later in their stay.

PCV2

RETROSPECTIVE STUDY OF PATIENTS WITH CABG REOPERATION AND OUTCOMES

He J, Griffin B, Wang C

Solucient, Berkerley Heights, NJ, USA

OBJECTIVES: Mortality and morbidity of patients with Coronary Artery Bypass Grafting (CABG) reoperation (redo) are reportedly significantly higher than those of first-time CABG population. Performing initial CABG properly and preventing

CABG redo increasingly become more and more important both clinically and economically. **METHODS:** A retrospective study was conducted among a population of 256,806 patients with initial CABG performed during the time period of January 2001 to February 2005. Data were collected from 332 hospitals out of the Solucient® ACTracker™ inpatient database. Multivariate logistic regression was used to identify factors contributed to CABG performance and propensity score adjustment was applied. Patient demographic, hospital characteristics (hospital bed size, region, teaching and PCI annual volume), disease condition (Chronic Obstructive Pulmonary Disease, COPD; Peripheral Vascular disease, PVD; Diabetes Mellitus, DM and Malignancy, MA), related therapeutic drugs class (Anticoagulant, Antiplatelet, GP2b3a, Asprin and Statins) usages during hospital stay, patient severity and risk adjust mortality index and on and off pump were introduced to logistic regression analysis. **RESULTS:** The patient demographics, hospital characteristics and disease conditions were controlled for comparison between CABG and CABG redo population ($P > 0.05$) except that male tended to have more CABG redo (OR: 1.2977, CI: 1.0956–1.5371). A total of 581 (0.22%) patients were found to have undergone CABG redo in an average of 350 days. Concomitant drug uses were studied. Anitcoagulant (OR: 3.649, CI: 3.353–3.971) and GP2b3a (OR: 1.480, CI: 1.331–1.647) have been found to not help with outcomes of the CABG patient while Asprin (OR: 0.308, CI: 0.28–0.335) and Statin (OR: 0.544, CI: 0.506–0.585) were found to significantly impact the outcomes of CABG performance. **CONCLUSIONS:** The study confirmed that patients with CABG redo had worse outcomes than those with one CABG (5.34% vs. 3.03%, $p < 0.01$). Detail drug usage studies are recommended to find out how to prevent patients from CABG redo in the initial treatment.

PCV3

THE IMPACT OF MYOCARDIAL PERFUSION IMAGING FOR DETECTION OF CORONARY ARTERY DISEASE ON THE HEALTH OUTCOMES OF ASYMPTOMATIC PATIENTS WITH TYPE 2 DIABETES

Marangos PJ[1], Papatheofanis FJ[2]
[1]Aequitas, San Diego, CA, USA, [2]UCSD, SAN DIEGO, CA, USA

OBJECTIVE: The objective of this investigation is to determine whether the results of myocardial perfusion imaging (MPI) for detection of coronary artery disease (CAD) results in improved new health outcomes in asymptomatic patients with Type-2 diabetes. The potential value of MPI is highlighted by the demonstrated association between patients with diabetes mellitus and the accelerated development of CAD, the fact that myocardial ischemia due to coronary atherosclerosis is commonly asymptomatic and the proven improvement in health outcomes in patients treated with coronary artery bypass grafting (CABG). **METHODS:** A retrospective observational study was conducted using data from a Veterans' Health System database, which included detailed diagnosis codes and three-year clinical follow-up of out-patient and in-patient encounters. We examined whether the presence of coded diagnoses for angina in patients also diagnosed with diabetes was associated with increased coronary artery abnormalities detected by MPI; we also examined the rates of cardiac intervention and subsequent cardiac events. A total of 517 patients who underwent MPI during the observation interval were included in the analysis; 520 matched patients who did not undergo MPI were used for comparison. **RESULTS:** Over 31.9% of MPI studies were abnormal and indicated ischemic or fixed perfusion defects, or both. Forty-one patients in the MPI cohort experienced cardiac death and 66 suffered MI, whereas in the comparator cohort 68 (OR 2.4 [95% CI 1.4–6.2]); $p < 0.01$) suffered cardiac death and 97 suffered MI (OR 4.4 [95% CI 2.6–9.6]; $p < 0.01$). The rate of CABG was approximately four-fold greater in the MPI cohort and the rate of both PTCA and CABG was three-fold greater in the MPI cohort. **CONCLUSION:** Findings from this retrospective analysis of MPI in asymptomatic patients with CAD and Type-2 diabetes has demonstrated that MPI resulted in interventions that reduced hard and soft cardiac events.

PCV4

A NATIONAL STUDY PREDICTING THE INFLUENCE OF PAYMENT SOURCES ON THE THIAZIDE DIURETICS UTILIZATION FOR HYPERTENSION

Rahman A
Shenandoah University, Winchester, VA, USA

OBJECTIVES: It costs $12 billion annually for the management of hypertension in U.S. Drug therapy is a major cost associated with the management of hypertension. The Seventh Report of the Joint National Committee on Prevention, Detection, Evaluation, and Treatment of High Blood Pressure (JNC-7) issued new guidelines for hypertension management. One of their guidelines is that thiazide-type diuretics should be used in the therapy of most patients with hypertension either alone in combination with other drugs. Diuretics enhance the efficacy of the multidrug regimens and are more affordable than other antihypertensive agents. Despite these recommendations, thiazide diuretics remain underused. Literature review indicates that patient' payment sources might influence the drug utilization for hypertension. This study examines the influence of various patients payment source on the thiazide diuretics utilization for hypertension in hospital ambulatory setting. **METHODS:** Patient payment sources such as Self Pay, Medicare, Medicaid, HMO's, and PPO's were used as independent variables to determine their influence on the thiazide diuretics utilization for hypertensive patients. Data from the National Hospital Ambulatory Medical Care Survey (NHAMCS) 2003 were utilized. Patients with principal diagnosis of Hypertension (ICD-9 code 401–404) were analyzed using ANOVA, multiple linear and binomial logit regression models. **RESULTS:** Hypertensive Patients with Federal source of payments (Medicaid and Medicare) were prescribed significantly lower number of thiazide diuretics compared to patients with other sources of payments ($R^2 = 0.116$). Patients with (HMO's + PPO's) and self-pay as their primary source of payments were prescribed significantly higher number of thiazide diuretics compared to patients with other source of payments ($R^2 = 0.364$) and ($R^2 = 0.287$) respectively. **CONCLUSIONS:** Thiazide diuretics utilization for hypertensive patients are significantly influenced by patients' source of payments. Patients with HMO's, PPO's and self-pay as their source of payment appears to appropriately adhere to the (JNC-7) guidelines for hypertension.

PCV5

PATIENT RISK ASSESSMENT AND ENGAGEMENT IN PRIMARY CARE MANAGEMENT OF CARDIOVASCULAR RISK

Stewart WF[1], Shah NR[2], Daar ZS[1], Ackley CV[3], Wood CG[4], Lewis BE[5], Shreve MS[6], Menapace F[1], Geyfman V[1]
[1]Geisinger Health System, Danville, PA, USA, [2]New York University School of Medicine, New York, NY, USA, [3]Geisinger Health System, Lock Haven, PA, USA, [4]Geisinger Health Sysytem, Danville, PA, USA, [5]AstraZeneca LP, Worcester, MA, USA, [6]AstraZeneca, Kentfield, CA, USA

OBJECTIVES: Underused and inadequate care can adversely affect patient health. Missed opportunities often occur in primary care because process flow models are not optimized to make effective use of established clinical knowledge. To bridge the gap between knowledge and practice we tested an electronic