itabine 14%, vinorelbine 11% or gefitinib 9%). Approximately one-quarter of patients were treated in third line and approximately 10% received fourth line treatment. The vast majority of third and fourth line treatments involved single agents. Toxicities associated with drug therapy were consistent with those that have been previously reported elsewhere. CONCLUSION: In the first line of therapy, patients received care largely reflecting the existing NSCLC evidence base from controlled trial data available during the 2001–2003 period. Treatment patterns and outcomes of patients in community-based practices represent a potential rich source of data to complement controlled trial data. To improve the availability of real-world practice data, further work is necessary to overcome limitations of claims-based oncology data, to enhance the development of analyzable electronic health records, and to establish treatment registries.

PCN41

DRUG COST CONSIDERATIONS FOR ERYTHROPOIETIC STIMULATING THERAPIES (ESTS) AGENTS IN PATIENTS INITIATED AT FDA-APPROVED DOSING: RESULTS FROM PRACTICE PATTERNS IN A PROSPECTIVE OBSERVATIONAL STUDY


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OBJECTIVES: Two ESTs received FDA-approval for fixed initial dosing in cancer patients with chemotherapy-induced anemia: 40,000 units for epoetin alfa (EPO) and 500 mcg for darbepoetin alfa (DARB). Understanding cost considerations, data was analyzed from the Dosing and Outcomes Study of Erythropoiesis-Stimulating Therapies (D.O.S.E.) Registry, an ongoing, prospective registry collecting data on real-world practice patterns. METHODS: Data from 18 U.S. hospital and community-based outpatient practices were assessed from January 2006–December 2006. Chemotherapy-treated adult patients initiated on either EPO 40,000 Units or DARB 500 mcg were evaluated. Outcomes assessed included: mean administered dose, mean treatment duration, dosing patterns, and mean cumulative administered dose. EST cost was based on dose and 9/2006 wholesale acquisition cost (EPO $12.17/1000 Units; DARB $4.446/mcg) with sensitivity analysis based on 4Q06 ASP +6%. RESULTS: A total of patients (145 EPO, 23 DARB) were eligible for analysis. Patient groups were similar with regard to baseline age, gender, tumor type, and Karnofsky score. The predominant dosing pattern was QW for EPO and Q3W for DARB. The mean administered dose was EPO 42,879 Units and 497 mcg in DARB group, corresponding to an EST cost of $322 and $2210 per injection. Treatment duration and number of office visits was similar between groups. Mean cumulative administered dose was 305,241 Units for EPO and 1665 mcg for DARB. The corresponding EST costs were $3715 for EPO and $7404 for DARB (p < 0.0001) with similar findings based on sensitivity analysis. CONCLUSION: Practice pattern data from this observational study of cancer patients initiated at FDA-approved fixed dosing reported significantly lower costs in the EPO group compared to the DARB group. Mean cumulative drug cost was $3689 less (50% less) in the EPO group compared to the DARB group. Findings provide further understanding of anemia management costs for health care professionals, hospital systems, and patients.

PCN42

A MULTI-PART EVALUATION OF A CANCER SYMPTOM MANAGEMENT INFORMATION TECHNOLOGY SYSTEM

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OBJECTIVES: The Patient Assessment, Care & Education (PACE) SystemTM was designed to address the persistent problem of under-identification and treatment of chemotherapy-related symptoms. The PACE SystemTM uses a pen-based e/Tablet that operates off a wireless network. Cancer Support NetworkTM on the e/Tablet provides educational materials to patients in text, video, audio, and graphic format. The PACE SystemTM also administers the Patient Care MonitorTM, a psychometrically validated, patient-reported symptom severity screening scale that generates a real-time, point-of-care report for the provider. The aim of the study was determine provider and patient opinions of the PACE SystemTM and to determine whether symptom assessment rates increased after the PACE System was implemented. METHODS: Ninety-two providers (i.e., physicians, nurse practitioners, physician assistants) at 16 community oncology clinics were surveyed about their experiences with the PACE SystemTM. At two oncology clinics 100 patient charts were abstracted in the year prior to implementation of the PACE system and in the year after the implementation the PACE system to determine symptom assessment rates. RESULTS: The majority of patients reported that they were generally satisfied with the PCM (55%). Slightly more than half indicated that it helped them to remember symptoms, although only 44% said it encourage them to discuss their symptoms. 91% of respondents said the e/tablet was easy to use. The majority of providers thought that the PCM increased the frequency with which symptoms were identified and treated. The results from the chart review show statistically significant increases in the assessment rates for depression, pain, and fatigue after the PACE system was implemented. CONCLUSION: The PACE system appears to be a promising approach to addressing the widespread problem of under-identification and under-treatment of symptoms in patients undergoing cancer treatment.

PCN43

ADHERENCE TO GUIDELINES FOR USE OF ERYTHROPOIESIS STIMULATING PROTEINS IN PATIENTS WITH CHEMOTHERAPY-INDUCED ANEMIA: TRENDS FROM ELECTRONIC MEDICAL RECORDS


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OBJECTIVES: Two national evidence-based guidelines recommend initiation of erythropoiesis stimulating proteins (ESPs) in chemotherapy-induced anemia (CIA) at hemoglobin (Hb) levels of 10 g/dL per ASH/ASCO guideline (2002) and <11 g/dL per NCCN guideline (1998), and maintenance of Hb near but not over 12 g/dL. The extent to which these guidelines are followed in actual practice is unknown. This retrospective study examined the patterns of use in cancer patients with CIA. METHODS: The Varian Medical Oncology database of electronic medical records (EMRs) from 17 outpatient oncology practices in the US was utilized. Adulst with a malignant tumor diagnosis between January 1, 2004 and July 27, 2006 who received at least one cycle of chemotherapy were studied. The proportion of patients...
receiving ESPs was calculated by chemotherapy cycle, Hb level during each cycle, and year. RESULTS: A total of 13,069 cancer patients were studied. Median age was 61 years, 60% were female, 38% had ECOG PS 0–2, and 30% had metastases. Forty-four percent had solid malignant tumors of which breast, lung and colorectal cancer were most common. Lymphoma was the most common hematologic cancer. The percentages of patients receiving ESPs during the initial cycle of the first planned chemotherapy regimen were 46.1%, 48.9%, and 48.2% at Hb ≥ 10 g/dL; 44.5%, 52.7%, and 51.4% at Hb level of >10 to <11 g/dL, in years 2004, 2005, and the first 10 months of 2006 respectively. Across all years, the proportion of patients receiving ESPs at Hb < 11 g/dL was 49.1%. Few patients (2.6–4.1%) with Hb ≥ 12 g/dL received ESPs. CONCLUSION: ESP use changed little over time. The overall proportion was under 50%.

CANCER—Methods & Concepts

INTEGRATION OF QUALITY OF LIFE WITH SURVIVAL FOR COMPARATIVE HEALTH OUTCOME ASSESSMENT

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OBJECTIVES: Establishment of a common unit for measuring health can be helpful for health policy decision. The objective of this study is to develop a common method and health unit for comparative assessment for health outcome. METHODS: By adjusting survival function with the mean of quality of life at every time point ti and then summing up throughout lifetime, we come up with a quality-adjusted life expectancy (QALE), which has a common unit of quality-adjusted life year (QALY). QALE = \text{E}(qol(t/Xi)) \text{S}(t/Xi) dt where E(qol(t/Xi)) is the expected value of quality of life function at time ti and S(t/Xi) is the survival function at time ti. Our approach is empirically implemented on estimating potential impacts of following health issues: the enforcement of helmet law in Taipei city and the contamination of underground water by chlorinated hydrocarbons from an electronics factory. RESULTS: The results showed that there would be 1300 cases with head injury annually prevented in Taipei city, which amounted to 6240 QALY saved. A case of hepatocellular carcinoma was estimated to lose 19.5 QALY. While the estimated likelihood from pollution of vinyl chloride, trichloroethylene, and tetrachloroethylene in the ground water were 8.4 × 10(−6), 1.4 × 10(−4), and 1.9 × 10(−4) based on cancer slopes. Assuming that the population at risk in the exposed community were about 1000 people, then the estimated potential health impact would be a loss of 2, 32, and 44 QALM (quality-adjusted life month), accordingly. We further extend the method to psychometry and a unit of score-time and conduct outcome evaluation for the effect of bone marrow transplantation after chemotherapy for acute myelogenous leukemia. CONCLUSION: We conclude that the method is feasible for comparative health risk/outcome assessment for public health and clinical policy decisions.