BUDGET-IMPACT OF ERIBULIN FOR THIRD-LINE TREATMENT OF METASTATIC BREAST CANCER IN A UNITED STATES MANAGED CARE SETTING

Tao C, Taylor D, Parthan A, Faria C, Chee Y

OBJECTIVES: 1) Examine survival of late stage prostate cancer patients; and 2) Determine factors associated with survival at both the patient and neighborhood levels. METHODS: Prostate cancer cases were obtained from the Florida Cancer Data System. Men aged 40 years and above diagnosed with late prostate cancer in 1995 were followed through 2000. Demographics, health insurance and vital statistics were extracted for individual patients and linked with Florida Census 2000 data and Vital Statistics. Educational and poverty level information was analyzed using a multilevel logistic regression to examine the relationship of prostate cancer survival with both patient-level characteristics and area-based measures of socioeconomic status. RESULTS: A total of 1,101 men were diagnosed with late stage prostate cancer in 1995, and an average age of 69 years. Patients with the following characteristics were more likely to die from prostate cancer than their counterparts: unmarried, Medicaid recipient, and older. Men residing in neighborhood with higher percentage of high school education and surprisingly men without health insurance were more likely to live longer than five years. CONCLUSIONS: Survival has improved over time due to early detection of prostate cancer, there are still differences in survival among men diagnosed with late stage based on different marital status, health insurance and neighborhood characteristics.

Cancer – Cost Studies

PCN25

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TREATMENT OF CHRONIC LYMPHOCYTIC LEUKEMIA (CLL) USING RITUXIMAB (R) WITH FLUDARABINE (F) AND CYCLOPHOSPHAMIDE (C). ASSESSING THE FINANCIAL IMPACT OF THE ROUTE OF ADMINISTRATION AT PRINCESSE MARGARET HOSPITAL (PMH)

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OBJECTIVES: The objective of this study was to determine, from the perspective of PMH, the financial impact of treating patients with CLL using R and intravenous FC (R-FC IV) versus R and orally administered FC (R-FC PO). METHODS: A cost analysis was performed from the perspective of PMH. All drug and administration costs were obtained from relevant sources in the province of Ontario and validated by PMH. Rituximab dosing was set at 375 mg/m2 for cycle 1 (day 1) and 500 mg/m2 of cycles 2-6 (day 1). Intravenous F and C were dosed at 25 mg/m2 and 250 mg/m2, respectively, for 6 cycles (days 1-3). Oral dosing of these drugs was set at 40 mg/m2 and 325 mg/m2, respectively. Drug utilization was estimated based on a body surface area of 1.8 m2. RESULTS: The cost of R-FC PO at PMH is $32,634 per patient (Drug cost: $29,292; Administration cost: $3,342), while the cost of R-FC IV is $34,400 per patient (Drug cost: $25,192; Administration cost: $8,208). Overall, utilization of R-FC PO is at $76,66 and 2%, less costly than R-FC IV at PMH. Real-world conditions would impact the difference in price between these two options, as patients may tolerate more treatment cycles of one regimen compared to another. The cost of the PO and IV route of administration may be viewed as functionally equivalent at PMH, making the decision to employ a specific route of administration one that should be based on non-financial criteria. These results should apply to all Canadian hospitals with drug and administration costs that are similar to those found at PMH.

CONCLUSIONS: PO administration may be viewed as functionally equivalent at PMH, more treatment cycles of one regimen compared to another. The cost of the PO and IV route of administration may be viewed as functionally equivalent at PMH, making the decision to employ a specific route of administration one that should be based on non-financial criteria.

18,378 elderly patients with stage III CC, 57% received 1stTx (n = 10,408). Among 1stTx users, 8% (n = 870) went on to receive 2ndTx. Average weekly total medical costs for 1stTx varied between $647 and $1,493 (mean = $895 ± 166) while these for 2ndTx were higher, ranging from $752 to $2,041 (mean = $1,046 ± 286). Furthermore, average weekly total medical costs of 2ndTx in patients who started 2ndTx was higher ranged from $900 to $2,093 (mean = $1,251 ± 318), reflecting higher costs than among late 2ndTx users, whose costs ranged from $767 to $1,483 (mean = $1,011 ± 226). CONCLUSIONS: Average weekly total medical costs of stage III CC patients were higher for 2ndTx than 1stTx. Early 2ndTx initiators also had higher average weekly total medical costs than late 2ndTx users. Findings suggest that direct medical costs of stage III CC patients are lower when they are on first-line than second-line chemotherapy.

PCN32 COMPARISON OF EPOETIN ALFA AND DARBEPOETIN ALFA DOSING PATTERNS AND COSTS IN CHRONIC KIDNEY DISEASE AND CHEMOTHERAPY-INDUCED ANEMIA OUTPATIENTS

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OBJECTIVES: To compare erythropoiesis-stimulating agent (ESA) dosing patterns and costs in outpatients with chronic kidney disease (CKD) not on dialysis or with chemotherapy-induced anemia (CIA). METHODS: Electronic records from the Premier Perspective Comparative Hospital Database (2006Q1-2009Q3) were analyzed to identify outpatients ≥18 years old treated with epoetin alfa (EPO) or darbepoetin alfa (DARB). Patients receiving renal dialysis or treated with both ESAs were excluded. CKD patients had ≥1 claim for CKD, no claim for cancer, and did not receive chemotherapy. CIA patients had ≥1 claim for cancer, received chemotherapy, and had ≥1 claim for CKD. The mean cumulative ESA dose was used to calculate costs, based on April 2010 wholesale acquisition costs (EPO: $15.15/1,000 Units, DARB: $4.96/mcg). RESULTS: A total of 11,012 CKD (EPO: 6,921, DARB: 4,091) and 5,590 CIA (EPO: 2,856, DARB: 2,734) outpatients were identified. EPO patients were slightly younger than DARB patients: 66% (EPO) vs. 71% (DARB) of similar age in the CIA group (years: 62.2 vs. 67.1; P = .136). The proportion of females was higher in CKD (EPO 62.2% vs. DARB 58.8%; P = .0003) and smaller in CIA (EPO 63.4% vs. DARB 67.0%; P = .0047). The mean treatment duration was slightly longer for EPO CKD patients (months: 3.6 vs. 3.4; P = .0004) and similar for CIA patients (months: 2.6 vs. 2.5; P = .1816). The mean cumulative dose was EPO 137,101 Units and DARB 533 mcg in CKD, and EPO 221,652 Units and DARB 933 mcg in CIA, yielding dose ratios of 257:1 and 238:1 (Units EPO:mcg DARB), respectively. Corresponding PO and IV Dose costs were higher for EPO than DARB: $2,664 vs. $2,077; CIA: $4,627 vs. $3,358. CONCLUSIONS: This analysis reported dose ratios of 257:1 and 238:1 in CKD and CIA outpatients, respectively. DARBE premies percentages of 27% for CKD and 38% for CIA patients were observed. PCN33 COST SAVINGS ASSOCIATED WITH TRANSFUSION INDEPENDENCE IN PATIENTS WITH MYELODYSPLASTIC SYNDROME WITH A 5Q-DELETION

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OBJECTIVE: Transfusion is the standard of care for many patients with myelodysplastic syndrome (MDS) in the US. Transfusions are economically burdensome due to the costs associated with the transfusions including iron chelation therapy (ICT). This study aimed to investigate potential cost savings associated with transfusion independence as a result of lenalidomide use. A one-line simulation model was constructed to estimate the relevant costs of using lenalidomide compared to transfusions in the treatment of MDS patients with a 5q-deletion and transfusion-dependent anemia. A two arm model was constructed to simulate patients through the costs of lenalidomide vs. transfusions. Patients were assigned initial transfusion and ICT requirements, response status, risk of infection, death, progression to acute myeloid leukemia (AML), and iron overload complications (IOC) based on data from a clinical trial and existing literature. Patients who became transfusion independent were subject to lower risk of infection, death, progression to AML and elimination of ICT. Dosing frequency and modification of lenalidomide was simulated based on results of the MDS-003 clinical trial. Treatment guidelines served also as a basis of assumptions when required. Resource use and cost data (in 2010 US dollars) were obtained from US databases and available literature. RESULTS: In a scenario that patients it was assumed that patients became transfusion independent with lenalidomide use, a patient’s cost was $19,116 inclusive of the cost of lenalidomide, whereas the costs for a transfusion dependent patient were $77,729. In this scenario, patients receiving lenalidomide experienced reduced infections, IOCs, progression to AML, and ICT compared to patients treated with transfusions. CONCLUSIONS: In the US, treating MDS patients with transfusion-dependent anemia and a 5q-deletion with lenalidomide results in cost savings due to a reduction in costs from transfusion related complications. These savings serve to largely offset lenalidomide treatment costs.