**PCN29**

**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 PRINCESS MARGARET HOSPITAL (PMH)**

Douglas F1, Lee R1, Worthington K1, Mistry B1

1Rho & Loche Limited, Mississauga, ON, Canada, 2University Health Network, Toronto, ON, Canada

**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 3). 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: $29,252; Administration cost: $3,342), while the cost of R-FC IV is $33,400 per patient (Drug cost: $25,192; Administration cost: $8,208). Overall, utilization of R-FC PO at PMH is $766, or 2%, less costly than R-FC IV at PMH. Real-world conditions would make 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:** IV routes 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.

**FINANCIAL IMPACT OF THE ROUTE OF ADMINISTRATION AT PRINCESS MARGARET HOSPITAL (PMH)**

**PCN32**

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

Lafuille MH1, Bailey RA2, Senbetta M2, McKenzie RS2, Lefebvre P2

1Groupe d'analyse, Lîle, Montréal, QC, Canada, 2Centorco Ortho Biotech Services, LLC, Horsham, PA, USA

**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 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 no 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 patients were identified. EPO patients were slightly younger than DARB patients, with median ages of 71.0 vs. 71.6; P = 0.0132). In the CIA group, females was higher in CKD (EPO 62.2% vs. DARB 58.8%; P = 0.0003) and smaller in CIA (EPO 63.4% vs. DARB 67.0%; P = 0.0047). The mean treatment duration was slightly longer for EPO CKD patients (months: 3.6 vs. 3.4; P = 0.0004) and similar for CIA patients (months: 2.6 vs. 2.5; P = 1.816). The mean cumulative dose was EPO 137,101 Units and DARB 533 mg in CKD, and EPO 221,652 Units and DARB 933 mg in CIA, yielding dose ratios of 257.1 and 231.8 (Units EPO:mcg DARB, respectively). Corresponding price ratio was 1.86:1 (mean 1.86:1) and 1.48:1 (mean 1.48:1) and smaller in the CIA group (years: 62.2 vs. 67.2; P = 0.136). The proportion of females was higher in DARB than CIA, reflecting that the patients treated with DARB are younger. Patients treated with DARB had higher cumulative costs for 2ndTx 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 between 2000 and 2009 were $2,043 ± 1,093 (mean: $1,251 ± 319), 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.