

COMPARISON OF EPOETIN ALFA AND DARBEPOETIN ALFA DOSING PATTERNS AND COSTS IN A CHRONIC KIDNEY DISEASE POPULATION TREATED IN THE HOSPITAL OUTPATIENT SETTING

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We examined real-world dosing patterns and associated erythropoiesis-stimulating agent (ESA) drug costs [epoetin alfa (EPO) and darbepoetin alfa (DARB)], in patients with chronic kidney disease (CKD) not on dialysis treated in a hospital outpatient setting. An analysis of electronic outpatient records from the Premier Perspective Comparative Hospital Database was conducted. Study subjects were identified through hospital outpatient visits recorded between 01/2006 and 03/2008 from over 500 hospitals nationwide. Patients selected for analysis were ≥ 18 years, had ≥ 1 claim for CKD, and received ≥ 2 ESA doses. Patients were excluded if they had cancer, received chemotherapy, or were treated with both ESAs. To minimize effect of outliers, 2% of patients with extreme doses in each group were excluded from the dosing analysis. Mean cumulative dose was used to calculate drug costs, based on October 2008 wholesale acquisition unit prices (EPO \$13.77/1,000 Units; DARB \$4.818/mcg). A total of 6,592 outpatient treatment episodes were identified (EPO: 3,959, DARB: 2,633). Mean age and gender distribution were comparable between groups (age: EPO 73.0 years, DARB 73.5 years; % women: EPO 55.7%, DARB 55.8%, $p > .05$ for both). Mean treatment duration was slightly longer in the EPO group (EPO: 4.2 months, DARB: 3.5 months, $p < .0001$). Mean cumulative dose per episode of treatment was EPO 141,974 Units and DARB 557 mcg, corresponding to a dose ratio of 255:1 (Units EPO: mcg DARB). The corresponding treatment cost was significantly lower in the EPO group, compared with DARB (EPO: \$1,955, DARB: \$2,681; $p < .0001$). In conclusion, this analysis reported a dose ratio between EPO and DARB of 255:1 (Units EPO: mcg DARB) in patients with CKD not on dialysis. EPO was found to cost 27% less than DARB, based on the cumulative dose administered despite the EPO group having slightly longer treatment duration.