METHODS: Patients with ≥2 RCC claims (ICD-9 189.0, 199.0) receiving sunitinib (n = 244), sorafenib (n = 234) or bevacizumab (n = 106) were identified from a large US commercial health insurance claims database covering over 39 million people between January 2002–December 2006. Patients were observed from their first angiogenesis inhibitor therapy claim until the last treatment date. Inpatient, outpatient and pharmacy costs (actual payments made by health plans) were calculated on a per-patient per-month (PPPM) basis over the treatment period with costs for the study drugs reported separately. RESULTS: PPPM costs for bevacizumab were $5130 higher than PPPM costs for sorafenib and $3,261 higher than PPPM costs for sunitinib. Additionally, bevacizumab drug and IV administration costs accounted for 51% of the outpatient costs for those patients. Excluding drug and administration costs, bevacizumab patients still incurred higher PPPM outpatient services costs of $3956, compared with patients receiving sunitinib or sorafenib at $2913 and $2230 respectively. Monthly costs for inpatient services were also higher for bevacizumab patients ($2467) vs. sunitinib ($1716) and sorafenib ($1802) patients. CONCLUSION: RCC patients treated with bevacizumab incur an additional $39,132–$61,560 total medical cost increase per patient per year compared to those treated with sunitinib or sorafenib. The development of more tolerable and efficacious oral angiogenesis inhibitor therapies may result in additional cost savings to patients and health care payers over IV therapies.

ECONOMIC EVALUATION OF SEVELAMER VERSUS CALCIUM-BASED PHOSPHATE BINDERS IN PATIENTS ON DIALYSIS IN THE UNITED KINGDOM SETTING

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OBJECTIVE: To evaluate the cost-utility of sevelamer versus calcium-based phosphate binders (CaPB) in different patient cohorts and for different dialysis modalities. METHODS: Systematic literature review was conducted with only studies reporting mortality considered. Subgroup analyses were carried out based on results from one trial (DCOR). Costs of dialysis were obtained from a recent UK-based study; dosage of drugs was taken from the DCOR trial, and unit prices from the British National Formulary; costs were expressed in £2007; utilities were sourced from the literature. Markov model was developed for analysis. RESULTS: Six RCTs of sevelamer versus CaPB reporting all-cause mortality were identified. No significance was found in meta-analysis: RR = 0.83 [95% CI: 0.56–1.17]; difference in cardiovascular mortality was not significant, based on three RCTs: 0.94 [0.76–1.17]. In the general haemodialysed population sevelamer cost £6491 more than CaPB after ten years of treatment, regardless of dialysis modality. In the 65 and older population, cost of sevelamer was £30,293 higher, while efficacy was 0.52 QALYs greater; ICER = £58,405. In patients on peritoneal dialysis, sevelamer cost £17,837 more than CaPB, with identical efficacy; ICER = £34,389. In patients treated for at least two years, sevelamer cost £27,266 more, while its efficacy was 0.41 QALYs higher; ICER = £65,782. In the 65 + population treated for at least two years, cost of sevelamer was £38,378 higher, while efficacy was 0.70 QALYs greater; ICER = £55,182. Acceptability curves revealed that probability of sevelamer being cost-effective at £20,000/QALY ranged 1.2–13.4%; EVPI was £17–194. With the costs of dialysis excluded, ICER ranged from £11,944 to £22,543; for all scenarios ICER diminished with longer time horizons. CONCLUSION: Sevelamer is not likely cost-effective, but in the older population it is more cost-effective in patients on peritoneal dialysis than on haemodialysis. ICER is relatively high for subgroups, mainly due to the high cost of dialysis of patients who live longer due to sevelamer.

STAFF TIME AND COSTS FOR ANEMIA MANAGEMENT WITH ERYTHROPOIETIC STIMULATING AGENTS IN PATIENTS ON HEMODIALYSIS: CASE STUDY OF A BRAZILIAN DIALYSIS CENTER

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OBJECTIVE: This study assessed costs related to anemia management in a reference dialysis center. The study also explored the potential benefit of efficiency improvement and costs reduction with the use of C.E.R.A., a novel continuous erythropoietin receptor activator that is effective for treating anemia with a once monthly injection. METHODS: This study was conducted at the
Hospital do Rim from Universidade Federal de São Paulo (dialysis center) where 208 patients make use of human recombinant erythropoietin (ESA) for anemia management. Structured interviews with personnel were arranged to identify workflow for anemia management. Time spent in each activity was registered using a stop watch by a trained professional. Time spent in less frequent activities or in activities were the direct relation with anemia management could not be done were not taken into consideration for this study. For valuing time and supplies the dialysis center’s costs data was considered. RESULTS: Total time spent for ESA administration by the dialysis center for the treatment of 208 patients was 75 days or R$19,758. Assuming the usage of C.E.R.A. in 100% patients of the center, the time spent by the staff would be 10 days or R$2683, representing an 86% reduction versus current practice. Costs of supplies needed for the administration were R$28,863 for those patients receiving conventional ESA and R$774 if patients would have received conventional ESA and R$774 if patients would have received C.E.R.A. As a result, potential total savings generated with the use of C.E.R.A. was R$ 45,165 per year in this dialysis center or R$217/patient/year. One-monthly C.E.R.A. could also improve savings for the dialysis center: R$44,847 per year or R$216 per patient per year. Once-monthly C.E.R.A. can bring substantial improvements in patient quality of life (QOL) and health-related quality of life (HRQL).

The physical component summary was significantly higher in APD (58 ± 22) in comparison with CAPD (46 ± 15) and HD (34 ± 15). Mental component summary was less in CAPD (36 ± 15) in comparison with APD (60 ± 22) and HD (46 ± 15). CONCLUSION: The HRQL in patients undergoing CAPD was less in comparison with patients with APD and HD. The physical dimension was higher in patients with APD in comparison with CAPD and HD, whereas the mental dimension was less in the CAPD group. There was no significant difference between the APD and HD groups.