HEALTH CARE COSTS ASSOCIATED WITH ANGIOPENESIS INHIBITORS (AIS) AND MTOR INHIBITORS (MTORS) IN PATIENTS WITH METASTATIC RENAL CELL CARCINOMA (mRCC) TREATED AT US COMMUNITY ONCOLOGY CLINICS
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OBJECTIVES: This study models the costs of mRCC treatment for selected targeted agents (AIs and mTORs) in 18 US community oncology clinics using medical resource utilization data collected from patient medical charts. METHODS: Data were abstracted for 297 non-trial mRCC patients ≥18 years, receiving 1st-line therapy with sorafenib (n=119), bevacizumab (n=131), or temsirolimus (n=28) as first-line therapy. Patients receiving ≥180 days coverage before switch date. Observation period: first-line therapy ≤12 months before switch, ending ≤12 months after switch. RESULTS: Median treatment duration was 6.6 months (sunitinib) and 5.8 months (sorafenib). Total costs PPPM were $1,972.62 ± 610.49 (sunitinib), $2,798.48 ± 682.29 (sorafenib), $7,945.39 ± 1,256.53 (temsirolimus). AI drug costs comprised 64% (sunitinib, sorafenib), 79% (bevacizumab), and 45% (temsirolimus) of total PPPM costs. AE treatment costs PPPM were $1,972.62 ± 610.49 (sunitinib, 21% of total PPPM costs), $1,302.58 ± 539.46 (sorafenib, 16%), $425.25 ± 265.69 (bevacizumab, 3%), and $1,810.85 ± 627.63 (temsirolimus, 16%). Given the median treatment durations, total costs associated with first-line AI were estimated as $510.92 (sunitinib), $530.21 (sorafenib), $98.86 (bevacizumab), and $321.81 (temsirolimus), including intravenous administration costs of $2,497 (bevacizumab) and $2,111 (temsirolimus). CONCLUSIONS: Targeted agent drug cost was a major contributor to the total health care costs PPPM in patients with mRCC, followed by AE treatment costs. While AIs may be largely related to tolerability for sunitinib and sorafenib, AE treatment cost was as high as 21% and 16% of total cost. This study is limited by small sample sizes for bevacizumab and temsirolimus.

PCNS5 HEALTH CARE COSTS ASSOCIATED WITH MULTIKINASE INHIBITORS (MKIS) FOR TREATMENT OF METASTATIC RENAL CELL CARCINOMA (mRCC) IN A CLINICAL PRACTICE SETTING IN ITALY
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OBJECTIVES: A prior retrospective chart review study described treatment patterns and drug-related adverse events (AEs) for mRCC pts treated with sunitinib or sorafenib in a tertiary center in Italy (ECOC-ESMO, 2009). This study modeled the costs of 297 non-trial mRCC patients treated with AIs and AEs. METHODS: Medical records were reviewed for first-line non-trial pts with mRCC, 218 years old, treated with sunitinib (n=85) or sorafenib (n=60) after January 1, 2005. Data collected included patients’ health care resource utilization cost data for the Italian health care system were obtained from various sources including published literature and published from the Italian government. The components of the total per-patient-per-month (PPPM) costs (in 2008 Euro) included costs of MKI drugs, diagnostic and therapeutic procedures, hospitalizations, management of MKI-related adverse events (AEs), and prescription drugs for conditions other than mRCC. RESULTS: Median treatment duration was 6.6 months (sunitinib) and 5.8 months (sorafenib). Total Costs PPPM were (mean ± SD) €388.97 ± 710.49 (sunitinib) and €344.01 ± 1,178.96 (sorafenib). MKI drug costs, equal to $481.36 (sunitinib) and $72.15 (sorafenib), were the largest contributor to total PPPM costs, followed by AE treatment costs of €75.48 ± 72.15 (sunitinib) and €79.94 (sorafenib). Given the median treatment durations, the total cost over the course of first-line MKI treatment is estimated to be €25,335 for sunitinib and €19,998 for sorafenib, with the cost of AE treatment amounting to €712 for sunitinib and €1,289 for sorafenib. CONCLUSIONS: This study used health care resource utilization data from a real clinic setting and costs from published literature to estimate costs associated with MKI treatment in patients with mRCC in Italy. MKI drug cost was the major contributor to total PPPM cost, followed by the cost associated with treatment of AEs. This retrospective study is limited by small sample sizes from a single center.

RETROSPECTIVE US CLAIMS DATABASE ANALYSIS OF THE COST OF SEQUENCING OF SORAFENIB AND SUNITINIB IN THE TREATMENT OF PATIENTS WITH RENAL CELL CARCINOMA (RCC)
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OBJECTIVES: An earlier analysis in first-line treatment of RCC patients with similar baseline characteristics demonstrated significantly greater costs with sunitinib than sorafenib. Evidence from case series supports the use of sorafenib or sunitinib sequen- tial therapy for RCC disease control. Direct medical costs associated with each sequence were quantified. METHODS: Patients in MarketScan®, a U.S. health care claims database covering all U.S. census regions and ≈18 million lives annually from 2002–2009, were retrospectively analyzed. Included: ≥2 RCC claims (ICD 189.0, 198.0), continuous health care coverage, ≤1 switch (sorafenib to sunitinib; sunitinib to sorafenib), >180 days’ coverage before switch date. Observation period: first-line therapy ≤12 months before switch, ending ≤12 months after switch. SECOND-line treatment (switch) ended with next dispensing of sunitinib, sorafenib, bevacizumab, or temsirolimus; disenrollment; death; or study end (March 31, 2009). A person-time approach was used. Limitations include physician coding and lack of disease staging. RESULTS: At time of switch, no significant differences in baseline characteristics existed for sunitinib vs sunitinib first (12.4 vs 8.8 months; P = 0.0001) and higher prevalence of anemia in patients who received sunitinib first (32.9% vs 32.8%, P < 0.001). Univariate incremental total per member per month (TPMP) costs in those who received sunitinib first were $1619 (P = 0.0003) more than those treated with sorafenib first, largely due to significantly higher outpa- tient costs TPMP in those who received sunitinib first ($1252; P < 0.0001). Overall, this represents an annual cost savings of $19,668 in RCC patients initially treated with sorafenib. CONCLUSIONS: In this retrospective US claims database analysis, we observed statistically significantly lower costs in RCC patients initially treated with sorafenib, the difference mainly attributable to outpatient costs. Future cost analyses should be incorporated into prospective trials of RCC sequencing.

LOWER HEALTH CARE RESOURCE UTILIZATION ASSOCIATED WITH MANAGING Nilotinib Related adverse events in chronic myeloid leukemia (CML) patients: evidence from a Clinical practice setting study
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OBJECTIVES: To compare the safety profile of nilotinib, observed in a large study of CML patients in a clinical practice setting to the product information of nilotinib and dasatinib. METHODS: Adult patients with imatinib resistant or intolerant Ph+ CML in chronic phase (CP), accelerated phase (AP), or blast crisis (BC) were recruited in the phase IIIb, open label, multi-center study. Patients received nilotinib 400 mg BID and were not permitted to dose escalate. Follow-up treatment in managing the hematological and non-hematological adverse event (AE), were recorded. Health care resource utilization was estimated by constructing six-month marginal cost increase in patients who received follow up care for the management of AE. Cost data were obtained from MedStat MarketScan database that contained over 5000 CML patients. RESULTS: A total of 207 patients (172 CP pts, 15 AP pts, and 20 BC pts) were enrolled in the study between June 2006–October 2008. The percentage of patients with grade 3/4 hematological AEs suspected of being study drug-related in CP and AP were thrombocytopenia (12%, 20%), neutropenia (9%, 27%), and anemia (12%, 13%). The most frequent non-hematological AEs (all grades) included rash, headache, nausea, and fatigue. The percentage of patients requiring additional therapy for the reported hematological AEs was less than 50% in most cases. Total medical costs associated with managing the AEs, estimated from MedStat cost data, for both hema- tological and non-hematological AEs were $6314 over a 6-month period. Medical costs associated with managing hematological AEs made up the majority of these costs. The least significantly lower costs were related to hematogenous burden of the AEs in the product information for nilotinib or dasatinib ($9,730 and $12,372, respectively). CONCLUSIONS: Nilotinib related AE costs observed in this large clinical practice setting study compare favorably to the estimated costs from product information from nilotinib and dasatinib.