

**Editorial Mission**

The purpose of *Kidney Cancer Journal* is to serve as a comprehensive resource of information for physicians regarding advances in the diagnosis and treatment of renal cell carcinoma. Content of the journal focuses on the impact of translational research in oncology and urology and also provides a forum for cancer patient advocacy. *Kidney Cancer Journal* is circulated to medical oncologists, hematologist-oncologists, and urologists.

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**About the Cover**

New findings are strengthening the association between smoking and kidney cancer, as seen on a light micrograph. The image in the micrograph is of a section through a malignant renal neoplasm (round, center) in the renal vein (c-shaped). Copyright, Photo Researchers.

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## Rediscovering How We Treat Kidney Cancer and Modify Risky Behavior



Bernard  
Escudier, MD

New data that emerges from ongoing clinical trials of targeted therapies hold our attention throughout the year, and in recent years these new agents have vastly expanded the treatment spectrum. Although such news tends to overshadow other studies—such as those presenting epidemiologic data—it is worthwhile to turn our attention from time to time to basic research that gives us insights and benchmarks for evaluating our treatment paradigms and strategies to modify risk.

Two articles in this issue illustrate how we can deepen our awareness of trends in demographics, treatment, compliance, and risk stratification by returning to some fundamental research in these areas. One of our reports gathered data from a large retrospective, observational, cohort study extracted from private-practice databases of longitudinal, patient-level medical and pharmacy claims collected from physicians and other health care providers across the United States. It can help remind us of how clinicians are practicing in the era of targeted therapy and serves as a benchmark to determine how certain strategies are being followed.

Such information from “real-world” clinical practice is a necessary complement to information from clinical trials in informing clinical use and policy decisions that involve the new agents. The current study characterized patient characteristics, treatment patterns, and schedule compliance with molecular-targeted agents in a large, nationally representative cohort of patients with mRCC (N = 1080).

As we might expect, the most common first-line treatments were sunitinib and temsirolimus, and the most common second-line treatments were sunitinib and everolimus. The most common treatment sequence was sunitinib or everolimus after a first-line TKI (sunitinib/sorafenib). These treatment patterns should be interpreted with the knowledge that the line of therapy reported in this study was based on analysis of claim activities, which might not completely reflect patients’ actual drug-taking behavior. However, these treatment choices and sequences appear to reflect application of findings from clinical trials and are consistent with current treatment guidelines, according to the authors. The article is worthwhile reading as a means of comparing our own strategies within the context of a broader analysis and helps us chart the standard of care.

By now it is axiomatic that smoking is linked with renal cell carcinoma, but new information is emerging on aspects of this association that enables us to do an even better job of counseling our patients in our efforts at behavior modification. For example, there are new insights on how nicotine promotes angiogenesis. And the question remains whether smoking itself is associated with the development of tumors that invade and metastasize more readily. Further study is needed to definitively link cigarette smoking to more aggressive RCC tumor biology and phenotype. However, cigarette smokers are more likely to present with more

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advanced disease at time of nephrectomy and they are at greater risk of death from RCC compared with never smokers.

We know more precisely how cigarette smoking is an independent risk factor for advanced RCC. Higher intensity, longer duration of smoking, and greater cumulative exposure are associated with a probable increase in advanced disease

(ie, worse prognosis at presentation and more negative patient outcomes). The risk for RCC decreases with the longer duration of durable smoking cessation, therefore smoking cessation may be the single most effective measure to slow progression of disease.

**Bernard Escudier, MD**

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