



Renal Cell Carcinoma Fact Sheet

The Disease

- Renal cell carcinoma (RCC) is the most common type of kidney cancer in adults, causing 85 percent of all kidney cancers.¹
- Despite advances in understanding the growth mechanisms of many different tumor types, kidney cancer is still not fully understood. It is believed that both the Ras signaling pathway and angiogenesis may play a role in kidney cancer.

Key Statistics

- Kidney cancer disproportionately affects men, with roughly twice as many men as women developing the disease annually.¹
- The risk of kidney cancer increases with age. Over 90 percent of cases are diagnosed after age 45. The average age among newly-diagnosed kidney cancer patients is 66.²
- At the time of diagnosis, the cancer has already metastasized (spread to distant body locations) in about one-third of people with kidney cancer.¹
- For patients with early-stage kidney cancer, the five-year survival rate is between 70 and 98 percent.¹ In later-stage disease, when the cancer has metastasized, the five-year survival rate is between 15 and 18 percent.¹
- In 2002, approximately 208,000 people worldwide (about 37,000 Americans) were diagnosed with kidney cancer, and approximately 102,000 of them (about 12,000) died from the disease.³
- In 2007, there will be more than 51,000 cases of kidney cancer diagnosed in the United States and approximately 13,000 Americans will die from the disease.⁴

Risk Factors and Symptoms

- Kidney dialysis patients and those with a family history of RCC are at an increased risk of developing RCC.¹
- Smoking is a major RCC risk factor. People who smoke are two times more likely to develop RCC than nonsmokers.¹
- Other RCC risk factors include obesity and long-term use of analgesics (pain relievers).¹
- Symptoms of RCC include:
 - Blood in the urine
 - Back pain
 - Pain in the side that does not go away
 - Abdominal pain or enlargement
 - Unexpected weight loss
 - Loss of appetite
 - Severe fatigue¹

Treatment

- The treatment of RCC depends on the severity of the cancer and the patient's overall health.
 - The primary therapy for kidney cancer is surgery, which is effective only when all of the cancer is removed.¹ Radiation treatment is also used when the cancer has spread beyond the kidney.¹
 - Immune modulators, such as interferon-alpha and interleukin-2 (IL-2), are sometimes used, but response rates remain relatively low with these treatments.⁴
 - Although kidney cancer is generally resistant to chemotherapy, it may be used in some cases.⁴
- Several newer forms of therapy that target specific parts of cancer cells have demonstrated efficacy in treating people with advanced kidney cancer. These include drugs that stop angiogenesis (new blood vessel growth) and drugs that target other important cellular growth factors.⁴

References:

¹ American Foundation for Urologic Disease.

² Harvard Center for Cancer Prevention. Your Disease Risk: Kidney Cancer. Available at:

http://www.yourdiseaserisk.harvard.edu/hccpquiz.pl?lang=english&func=show&quiz=kidney&page=risk_list. Accessed April 16, 2007.

³ J. Ferlay, F. Bray, P. Pisani and D.M. Parkin. GLOBOCAN 2002: Cancer Incidence, Mortality and Prevalence Worldwide IARC CancerBase No. 5. version 2.0, IARC Press, Lyon, 2004. Available at: <http://www-dep.iarc.fr>. Accessed April 16, 2007.

⁴ American Cancer Society. Detailed Guide: Kidney Cancer. Available at:

http://www.cancer.org/docroot/CRI/content/CRI_2_4_4x_Targeted_Therapies_22.asp?rnav=crl. Accessed April 16, 2007.

Leverkusen, 2007

Forward Looking Statements

This information contains forward-looking statements based on current assumptions and forecasts made by Bayer Group management. Various known and unknown risks, uncertainties and other factors could lead to material differences between the actual future results, financial situation, development or performance of the company and the estimates given here. These factors include those discussed in Bayer's public reports filed with the Frankfurt Stock Exchange and with the U.S. Securities and Exchange Commission (including its Form 20-F). Bayer assumes no liability whatsoever to update these forward-looking statements or to conform them to future events or developments.

Bayer Investor Relations contacts:

Dr. Alexander Rosar (+49-214-30-81013)

Dr. Juergen Beunink (+49-214-30-65742)

Peter Dahlhoff (+49-214-30-33022)

Ute Menke (+49-214-30-33021)

Ilia Kürten (+49-214-30-35426)

Judith Nestmann (+49-214-30-66836)

Dr. Olaf Weber (+49-214-30-33567)