

## RENAL CELL CARCINOMA (RCC) FACT SHEET

<p><b>About RCC</b></p>	<p>RCC is the most common type of kidney cancer and accounts for 90% of all cancerous kidney tumors<sup>1,2</sup>. There were an estimated 338,000 new cases of kidney cancer worldwide in 2012, which represents approximately 4% of all new cancer cases globally<sup>2,3</sup>.</p> <p>There are several types of RCC, but 75% of patients have a type called clear cell<sup>4</sup>. In RCC, cancer cells develop in the lining of the kidney's tubes and grow into a mass, commonly called a tumor<sup>1</sup>.</p>
<p><b>Possible Signs &amp; Symptoms of RCC<sup>1</sup></b></p>	<ul style="list-style-type: none"> <li>• A lump on the side or lower back</li> <li>• Low back pain on one side</li> <li>• Weight loss for no known reason</li> <li>• Fever</li> <li>• Loss of appetite</li> <li>• Fatigue</li> <li>• Anemia (low red blood cell counts)</li> <li>• Hematuria (blood in the urine)</li> </ul>
<p><b>Risks for Occurrence</b></p>	<p>The average age at diagnosis is 64 years, and the disease is twice as common in men as it is in women<sup>1</sup>.</p> <p>Several factors can be attributed to an increased risk of RCC, including smoking, obesity, and high blood pressure and having a family history of certain conditions, such as von Hippel-Lindau disease, a rare genetic multi-system disorder characterized by abnormal blood vessel growth<sup>1</sup>.</p>
<p><b>Management of Advanced RCC</b></p>	<p>RCC is difficult to detect in its early stages, and &gt;30% patients with RCC have metastatic, or advanced, cancer at the time of diagnosis, meaning the cancer cells have spread beyond the kidney to other parts of the body<sup>1,5</sup>.</p> <p>Treatment approaches for advanced RCC include<sup>1</sup>:</p> <ul style="list-style-type: none"> <li>• Surgery</li> <li>• Radiation</li> <li>• Cytokine therapy</li> <li>• Targeted therapy</li> <li>• Chemotherapy</li> <li>• Immunotherapy</li> </ul> <p>These treatment options may be used at different stages of the disease with the goal of temporarily stopping or slowing the growth of the tumor and/or boosting the body's immune response against cancer cells.</p>
<p><b>Staging of RCC<sup>+</sup></b></p>	<p>The stage of RCC is based on the size, location and spread of the tumor. Staging is based upon the degree of involvement of three elements<sup>1</sup>:</p> <ul style="list-style-type: none"> <li>• <b>T:</b> Indicates the size of the main (primary) tumor and whether it has grown into nearby areas<sup>1</sup></li> <li>• <b>N:</b> Indicates whether or not regional or nearby lymph nodes are involved and the degree of involvement<sup>1</sup></li> <li>• <b>M:</b> Indicates whether or not the tumor has spread or</li> </ul>

	<p>metastasized to distant organs, such as the lungs, bones, liver, brain and distant lymph nodes<sup>1</sup></p> <p>The following is an example of staging for stage III RCC<sup>1</sup></p> <ul style="list-style-type: none"><li>• T3, N1, M1<ul style="list-style-type: none"><li>◦ The main tumor is growing into a major vein or into tissue around the kidney (T3). It has spread to nearby lymph nodes (N1) and metastasized to distant lymph nodes and/or to other organs (M1).</li></ul></li></ul> <p><sup>+</sup> <i>Staging according to TNM 2002 staging system, as employed by the European Society for Medical Oncology (ESMO)</i></p>
--	---

## References

1. American Cancer Society. Kidney Cancer (Adult) – Renal Cell Carcinoma. Available at <http://www.cancer.org/acs/groups/cid/documents/webcontent/003107-pdf.pdf>. Accessed March 2016.
2. Znaor A, et al. International Variations and Trends in Renal Cell Carcinoma. *European Urology*. 2015; 67:519-530.
3. World Health Organization. GLOBOCAN 2012: Estimated Cancer Incidence, Mortality and Prevalence Worldwide in 2012. Available at [http://globocan.iarc.fr/Pages/fact\\_sheets\\_population.aspx](http://globocan.iarc.fr/Pages/fact_sheets_population.aspx). Accessed March 2016.
4. Bellmunt J, et al. Recommendations from the Spanish Oncology Genitourinary Group for the treatment of metastatic renal cancer. *Cancer Chemother Pharmacol*. 2014; 73:1095-1107.
5. Protzel C, et al. Epidemiology, Aetiology, and Pathogenesis of Renal Cell Carcinoma. *European Urology Supplements*. 2012; 11:52-59.

###