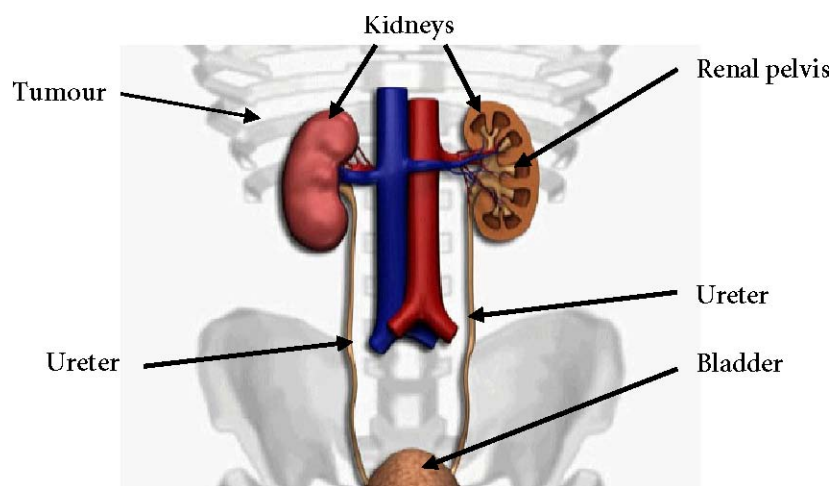


Kidney Cancer

What is kidney cancer?

Kidney cancer is characterised by the uncontrolled growth of abnormal cells within the kidney or the immediate surrounding tissue. Renal cell cancer* (RCC) is the most common form of kidney cancer, accounting for 85-90% of cases¹ and can be further classified into four subtypes based on their appearance under a microscope. The most common subtype, accounting for 80% of cases², is called 'clear cell' RCC because the cells look pale or clear under a microscope.



Prevalence

- Worldwide, approximately 200,000 patients are diagnosed with kidney cancer every year, representing about 2% of all cancers diagnosed³.
- Every year, more than 100,000 of these patients will die from the disease³.

Risk factors

Age: The peak incidence of kidney cancer is among individuals aged between 50-70 years⁴.

Smoking: Kidney cancer is more common among smokers than non smokers^{5,6}.

Obesity: May lead to a more than two fold increased risk of developing kidney cancer⁷.

Exposure to certain industrial chemicals such as arsenic and asbestos^{1,3} .

Diabetes, chronic kidney disease (and associated dialysis) or hypertension⁸ .

Diet: There is some evidence that consumption of excessive quantities of meat, dairy products, fat or protein may play a role in the development of kidney cancer⁹ .

A rare inherited condition called von Hippel-Lindau disease (VHL) can lead to tumour or cyst formation throughout the body. Between 25-45% of VHL sufferers will develop RCC¹⁰ .

Symptoms

Usually, patients with early stage** kidney cancer have few symptoms. However, symptoms of kidney cancer include:

- Blood in urine or abnormal urine colour.
- Pain in the back, side or abdomen.
- Swelling of ankles or legs.
- A persistent high temperature.
- Unintentional weight loss.

Management of kidney cancer

Treatment options vary according to the type and stage of the cancer, its size, position in the kidney, whether it has spread to other parts of the body (metastasised), and the physical health of the patient. In general, treatment options for advanced disease are:

- **Surgery:** May slow the growth of kidney cancer; however patients with advanced disease often do not benefit from surgery as the tumour has spread to other parts of the body.
- **Chemotherapy, hormone therapy and radiation therapy:** These benefit a small number of patients but these therapies generally have very limited efficacy against kidney cancer.
- **Cytokine therapy***:** The standard of care for patients with advanced kidney cancer for many years. Immune system processes are thought to be important in the development of kidney cancer. Interferon (IFN) and interleukin are generally used to treat selected patients only e.g those with advanced kidney cancer¹¹ .
- **Biological therapy:** Avastin (bevacizumab) in combination with IFN is clinically proven to extend the time advanced RCC patients live without their tumours getting worse to over 10 months¹² . Furthermore, patients who receive a lower dose of IFN (which helps minimise IFN related side effects) have the opportunity to experience the clinical benefit offered by Avastin and IFN, with the additional benefit of improved tolerability¹³ . Avastin is an antibody that specifically binds and blocks VEGF (vascular

endothelial growth factor). VEGF is the key driver of tumour angiogenesis – an essential process of development and maintenance of blood vessels which is required for a tumour to grow and to spread to other parts of the body. Avastin’s precise mode of action helps control tumour growth and metastases with only a limited impact on side effects of IFN. By inhibiting angiogenesis, the outlook for patients with kidney cancer can be substantially improved.

To download images and videos relating to renal cell cancer please visit: www.thenewsmarket.com

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* Renal cell cancer is the most common type of kidney cancer. It begins in the lining of the renal tubules in the kidney.

** Early stage refers to cancer that that hasn’t spread to the lymph nodes and / or other parts of the body.

*** Cytokine therapy describes a group of drugs that stimulate the body’s immune system. Cytokine therapies include interferon and interleukin.

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