What is kidney cancer?

- Kidney cancer is formed from the nephrons – the tiny tubes of the kidney that filter blood and produce urine.
- Renal cell carcinoma (RCC) is the most common form of kidney cancer in adults, representing about 80 per cent of all kidney cancer.
- Kidney cancer is unlike many other types of cancer. There’s little you can do to prevent it, there is no population-based screening for early detection and it can often exist for many years without symptoms.
- Physicians may use a combination of diagnostic tools and tests to determine the presence of RCC, including a urinalysis and blood test, CT scan, MRI, bone scan, ultrasound, X-ray, angiography and biopsy.
- In 2010, it was estimated that 4,800 people would be diagnosed with kidney cancer, and 1,650 people would die from the disease.

Early stage kidney cancer

- In early stage kidney cancer the tumour is limited to the kidney.
- Due to advances in imaging, approximately half of all tumours are now being caught early, at less than 7 cm (stage I).
- If caught early (in stage I), the relative five-year survival rate for RCC patients is approximately 67 per cent.

Treating early stage kidney cancer

- Radical nephrectomies, a surgery that removes the entire kidney, are a standard treatment for early stage kidney cancer. However, according to the current Canadian Kidney Cancer Consensus Guidelines, many early stage tumours can be treated with new and effective procedures:
  - Partial nephrectomy: a surgical procedure that removes only the part of the kidney containing the tumour.
  - Tumour ablation techniques: a treatment to heating (radiofrequency ablation) or freeze (cryotherapy) the tumour.
  - Active surveillance: withholding treatment and close monitoring of the patient until symptoms appear or change.
- When treating the cancer, research shows there is no significant benefit between a radical or partial nephrectomy.
  - Yet these new organ-sparing techniques have not been widely adopted across Canada.
• In general, living with one kidney does not create a medical problem; the remaining kidney grows larger to compensate for the removed kidney. However, diminished kidney function can be a challenge for kidney cancer patients, particularly if the cancer returns:
  ▪ Research shows in less than three years after surgery, one in 10 kidney cancer patients develop kidney disease.
  ▪ Should the cancer ever return, patients will need maximum kidney function to tolerate cancer-fighting treatments.
  ▪ For early stage kidney cancer patients, a radical nephrectomy can severely affect kidney function and create a higher risk of cardiac issues.

Advanced stage kidney cancer
• RCC is considered advanced when the cancer has metastasized, or spread, beyond the primary cancer site. Metastatic cancer is often found in nearby lymph nodes and may spread to either kidneys or other organs and bones.
• Unfortunately, because RCC is often asymptomatic, it can go undetected for years and then diagnosed in an advanced stage, when the cancer has spread. Over a quarter of cases are diagnosed at stage IV, which is fatal for the vast majority of people.
• Until the advent of targeted therapies, the five year survival rate for a patient diagnosed with metastatic (cancer that has spread to other parts of the body) RCC has traditionally been less than 10 per cent.

Treating advanced stage kidney cancer
• Advanced stage kidney cancer doesn’t usually respond to conventional therapies such as radiation and chemotherapy, because of the location and basic filtering function of the kidneys. This makes the need for alternative, effective treatments very important for this disease.
• In the past five years Health Canada has approved five new targeted treatments for kidney cancer, and patients are living longer than ever before.
  ▪ However, not all treatments are available to Canadians due to a lack of provincial funding for these new drug therapies.
• For optimal survival, kidney cancer patients need better access and more flexibility in treatment options so their physicians can tailor their treatment more effectively.

Visit www.kidneycancercanada.ca to find out more about kidney cancer and to see a list of questions you can ask your physician about treatment options.
References: