## **Bladder Cancer**

#### What causes bladder cancer?

There are certain risk factors that can increase a person's risk of developing bladder cancer:

- Smoking
- · Increasing age
- Bladder cancer is more common in men
- Occupational exposure to certain chemicals in the textile, petrochemical and rubber industries
- Chronic inflammation or infections of the bladder
- Family history of bladder cancer (genetic causes)
- Previous treatment with cyclophosphamide (chemotherapy drug)

## What are the symptoms of bladder cancer?

The most common symptom of bladder cancer is blood in the urine (haematuria) which is often painless. Other symptoms may include:

- The urge to urinate more frequently
- Inability to pass urine
- · Burning or pain while urinating
- Pain in one side of the lower back or abdomen
- · Loss of weight and lethargy in advanced cases

Sometimes, bladder cancer does not cause symptoms and is discovered incidentally when microscopic blood is detected on a urine test, or the bladder is inspected (cystoscopy) for another condition.

#### How is bladder cancer treated?

The treatment for bladder cancer depends on the type of bladder cancer and the extent of the cancer (referred to as the stage).

 TURBT (transurethral resection of bladder tumour) is the most common treatment for non-invasive bladder cancer

- Radical cystectomy (entire bladder removal) is the most common treatment for muscle-invasive bladder cancer
- Immunotherapy, chemotherapy and radiation therapy may also be used in advanced disease

#### TURBT for bladder cancer treatment

- Surgical treatment option for early stage bladder cancer or noninvasive bladder cancer
- Performed under general or spinal anaesthesia
  - A small telescope (cystoscope) is inserted through to the bladder via the urethra
  - A wire loop on the cystoscope is used to remove the tumour
  - No skin incisions are required
  - Most patients will have a catheter for 1-2 nights
- A follow-up procedure may be required to ensure that all the cancer has been removed
- · Low risk of infection or injury to the bladder

# Radical cystectomy for bladder cancer treatment

- Treatment option for muscle-invasive bladder cancer
- Performed under general anaesthetic
  - May be performed as an 'open' procedure (one incision) or keyhole procedure (robotic)
  - The entire bladder is removed, along with pelvic lymph nodes
  - In men, the prostate, urethra and seminal vesicles must also be removed
  - In women, the urethra, uterus and part of the vagina are often removed; the ovaries may be spared in young women
- Once the bladder is removed, urine will drain either via an ileal conduit or a neobladder may be created, in order to collect and store the urine

## Immunotherapy and chemotherapy for noninvasive bladder cancer

- Immunotherapy is a treatment aimed at boosting the body's immune system to delay or stop cancer growth
- Chemotherapy drugs may also be instilled directly into the bladder to damage or destroy cancer cells.

#### **Patient outcomes**

Following a diagnosis of bladder cancer, your urologist may give you a prognosis (predicted outcome) based on a number of individual factors, such as the type of cancer you have and the rate of its growth, your age and medical history.

### Preventing bladder cancer

Whilst it is not possible to prevent bladder cancer, you can minimise your risk of developing the disease by not smoking, or quitting smoking and limiting your exposure to hazardous carcinogenic chemicals.

Written by Dr. Shekib Shahbaz and Dr. Tony de Sousa

Urological Society of Australia and New Zealand, (2021), Bladder Cancer Patient Guidebook, [https://www.usanz.org.au/info-resources/position-statements-guidelines#BLADDER], accessed 18/02/21.

Cancer Council, (2020), Bladder Cancer, [https://www.cancer.org.au/cancer-information/types-of-cancer/bladder-cancer], accessed 19/02/21.