Radiotherapy For Urological Cancer

External Beam Radiotherapy

At Birmingham Urology Centre, we offer a range of advanced radiotherapy treatments to help manage and treat urology cancers.
External beam radiotherapy uses high-energy beams to precisely target and destroy cancer cells, while carefully protecting surrounding healthy tissues.

We use the latest technology to deliver radiotherapy with the highest levels of accuracy and safety. Every treatment plan is tailored to your individual needs to achieve the best possible outcome.

1. Stereotactic Ablative Radiotherapy (Sabr)

Stereotactic ablative radiotherapy (SABR) is a highly targeted form of external beam radiotherapy.
It delivers a very high dose of radiation to a tumour over just a few sessions, usually three to five treatments.

SABR can be used to treat:

- Lung tumours (primary or secondary)
- Prostate cancer (primary or secondary)
- Kidney cancer (primary or secondary)
- Bone and lymph node metastases

How Sabr Works

SABR uses advanced imaging and beam-shaping technology to treat only the cancerous area, with very little impact on nearby healthy tissues.
Because it is so precise, SABR often causes fewer side effects compared to conventional radiotherapy and allows for shorter overall treatment times.
It is also an option for treating tumours that have previously received radiotherapy, a technique known as **SABR reirradiation**.

Different ways of delivering SABR

We use a range of cutting-edge systems to deliver SABR, depending on the type and location of your cancer:

- **MRIdian radiotherapy**
  Combines MRI scanning and radiotherapy in one system. It allows continuous imaging of the tumour during treatment and automatically adjusts if the tumour moves, ensuring extreme precision.
- **CT linac radiotherapy**
  Uses real-time X-ray guidance to focus high doses of radiation directly on the tumour. It provides highly accurate treatment with minimal impact on surrounding healthy tissue.

- **CyberKnife (CK) radiotherapy**
  A robotic system that delivers radiation from many different angles. It can track and adjust to movements during treatment, making it ideal for treating tumours in delicate or moving parts of the body.

2. Intensity-Modulated Radiotherapy (Imrt)

IMRT is a sophisticated type of radiotherapy that shapes radiation beams to match the exact outline of the tumour.
This allows us to deliver a higher dose directly to the cancer, while protecting the healthy tissues nearby.

IMRT is often used to treat:

- Prostate cancer
- Bladder cancer
- Pelvic lymph nodes (where necessary)

The treatment is planned using 3D imaging and computer-aided technology to ensure that the dose is delivered as safely and effectively as possible.
It is particularly useful for treating tumours located close to important organs.

3. Image-Guided Radiotherapy (Igrt)

IGRT is an important technique that uses imaging scans taken immediately before and sometimes during treatment to ensure your radiotherapy is delivered exactly to the right place.

With IGRT:

- Scans or X-rays are taken while you are on the treatment couch.
- Your position is adjusted if needed to match the original planning scan.
- Small gold markers (fiducial markers) may be placed near the tumour for even greater accuracy.

IGRT is especially helpful for treating cancers that may move slightly between treatments, such as the prostate.
By checking the position at every session, we ensure the radiation is delivered with the highest possible precision.

Brachytherapy

Brachytherapy, sometimes known as internal radiotherapy, involves placing radioactive material directly inside or very close to the tumour.
At present, Birmingham Urology Centre arranges referrals for patients who require brachytherapy to specialist centres.
If your consultant feels that brachytherapy is the best treatment option for you, we will support you through the referral process.

Why Choose Birmingham Urology Centre For Your Radiotherapy?

- **Leading technology**: We offer MRIdian, CyberKnife, CT linac, IMRT and IGRT treatment options.
- **Personalised care**: Every treatment plan is designed to suit your individual diagnosis and needs.
- **Shorter treatment times**: Techniques like SABR mean you may only need three to five outpatient visits.
- **Expert multidisciplinary team**: Our team of specialists work together to provide you with the highest standard of care throughout your treatment journey.
- **Focus on quality of life**: We aim to reduce side effects and protect your health during and after treatment.

Get In Touch

If you would like to find out more about radiotherapy for urology cancers at Birmingham Urology Centre, please contact our friendly team.
We are here to guide you through every step of your treatment journey with care, expertise, and support.