

Plain Language Summary

Report - Urological Cancers in Ireland 1994-2023

Urological cancers include cancers of the prostate, testis, penis, kidney and bladder. They account for a substantial proportion of all cancers diagnosed in Ireland, particularly among men, with two in every five cancers in men being urological cancers. This report examines long-term trends in how often these cancers occur, the stage at which they are diagnosed, how they are treated, and how survival has changed over time. The picture painted by this comprehensive analysis is a positive one of improved survival and new methods of diagnosis and treatment.

NCRI Data

The NCRI is the definitive source of cancer information in Ireland, collecting data on every new case of cancer since 1994. We gather information from all hospitals and cancer services across the country, public and private, and our data are used by government leaders, researchers and healthcare professionals to understand cancer in our communities and to plan services that reduce its impact.

For this report, we examined how many people were diagnosed with urological cancers, the stage at which these cancers were found, how many people died from them, and the treatments patients received within the first year after diagnosis. We also estimated net survival, which tells us the chance of surviving cancer itself after taking into account that people may die from other causes. In addition, we assessed how the introduction of Rapid Access Prostate Clinics influenced where and how prostate cancer was diagnosed.

What We Found

- Survival has improved across all five cancer types – prostate, testis, penis, kidney and bladder.
- Improved survival rates are due to advances in how these cancers are diagnosed, and advances in how these cancers are treated.
- More people are being diagnosed with urological cancers, but this is mainly due to Ireland's aging population. The underlying risk for most cancers is either stable or going down.
- There has been a modest increase in the incidence rate for penile cancer, and bladder cancer, even after adjusting for ageing.

- Treatments have shifted toward less invasive and more organ-preserving methods. Robotic-assisted surgery, kidney-sparing procedures, and conservative approaches for suitable prostate and penile cancers are now used more often, helping reduce side effects and improve recovery.
- Rapid Access Prostate Clinics have led to a clear shift in prostate cancer diagnosis toward designated cancer centres.
- Although an increase in early-stage prostate cancer diagnoses has been observed, a continued rise in Stage IV prostate cancer, was also seen.

Note on Rapid Access Prostate Clinics

- There are eight of these clinics across the country.
- Public-system diagnoses increasingly occur in these centres.
- Diagnosis patterns in private hospitals have shown little change.

Prostate Cancer

Prostate cancer is the most commonly diagnosed urological cancer in Ireland. Case numbers increased sharply from the mid-1990s due to widespread PSA testing, but incidence rates have remained stable in recent years. Survival is among the highest of any cancer type. Treatment has shifted toward robotic-assisted surgery and active surveillance for suitable low-risk cases.

RAPCs have centralised diagnosis within cancer centres, but Stage IV prostate cancer continues to rise, even after RAPCs were introduced, indicating that a proportion of men are still presenting with advanced disease.

Testicular Cancer

Testicular cancer primarily affects younger men. Incidence increased steadily until around 2007 and has since stabilised. Survival remains extremely high, with further improvements in recent years. Treatment continues to be largely surgical, with declining use of radiotherapy and systemic therapy in line with contemporary guidelines. Patterns remain stable across age groups, though small increases are seen in older men who still represent a minority of cases.

Penile and Other Male Genital Cancers

Although rare, penile and other male genital cancers have shown a consistent rise in age-standardised incidence rates, particularly among men aged 50–74 and in those under 50 where rates, although low, are increasing. Survival has improved over time. Treatment increasingly favours organ-preserving surgery, with greater use of local excision when clinically appropriate.

Kidney Cancer (including renal pelvis and ureter)

Kidney cancer incidence increased from the mid-1990s until around 2016 and has since levelled off. After adjusting for age, both incidence and mortality have shown small declines in more recent years. Survival has improved steadily across all groups. Treatment now features a strong shift toward kidney-sparing surgery, with partial nephrectomy increasing substantially over the study period. Rates of advanced-stage kidney cancer have remained broadly stable since 2014.

Bladder Cancer (invasive and NMIBC)

Bladder cancer case numbers have risen over time, and the age-standardised incidence rate has increased modestly. Case counts and crude rates are considerably higher in males than females, reflecting well-known sex differences in bladder cancer risk. More Stage I bladder cancers are now being recorded, while rates of later-stage disease have remained stable or declined slightly. Survival has remained relatively unchanged in recent years, with no meaningful improvement across the most recent diagnosis periods. Transurethral resection remains the main treatment, and the use of intravesical immunotherapy has increased.