FOCUS ON PROSTATE CANCER IN THE ACT

KEY MESSAGES

- Prostate cancer is the leading cancer among men in the ACT (2010-2014).
- The causes of prostate cancer are poorly understood. It is more common in older men and men with a family history of prostate cancer, but prostate cancer is not clearly linked to any preventable risk factors.
- One of the major risk factors is older age, so the number of men in the ACT with prostate cancer is likely to increase as the proportion of older men in our population grows.
- An increase in the incidence of prostate cancer was seen in the ACT after Prostate Specific Antigen (PSA) testing was introduced in the late 1980s, but the incidence rate is now lower than that of 20 years ago.
- Survival from prostate cancer is high and improving (95% compared with 54% twenty years ago).

PROSTATE CANCER DEATHS

What do we know about prostate cancer deaths in the ACT?

In 2014, 34 men who lived in the ACT at the time of their prostate cancer diagnosis, died from prostate cancer. The age-adjusted mortality rate for the ACT was 23 deaths per 100,000 males compared to 26 deaths per 100,000 people for Australia in 2014. For ACT men, deaths from prostate cancer have remained relatively stable over time.

Source: ACT Cancer Registry.

PROSTATE CANCER INCIDENCE

What do we know about prostate cancer incidence in the ACT?

In 2014, 245 new cases of prostate cancer were diagnosed in ACT men. The age-adjusted incidence rate for the ACT was 138 cases per 100,000 males compared to 151 cases per 100,000 males for Australia in 2013.

With an average of around 260 cases diagnosed annually, prostate cancer outnumbers the next two most common cancers in men, colorectal and melanoma, combined (2010-2014).

Source: ACT Cancer Registry.

Figure 1: Number of prostate cancer cases diagnosed and number of deaths due to prostate cancer, ACT, 1994-2014, males

Figure 2: Age-standardised incidence and mortality rates (per 100,000) for prostate cancer, ACT, 1994-2017, males

Notes:
1. Rates were age-standardised to the 2001 Australian population.
2. Rates are 3-year leading averages (i.e. the average of the year listed and the two previous years).
How has prostate cancer incidence changed over time?

The number of new cases of prostate cancer diagnosed in ACT men increased from 144 in 1994, when cancer reporting became mandatory, to 245 in 2014 (Figure 1). Over the same period, the age-standardised incidence rate for the ACT decreased from 196.4 cases per 100,000 males (1994) to 137.6 cases per 100,000 males (2014) (Figure 2).

Despite incidence rates for prostate cancer decreasing between 1994 and 2014 (Figure 2), the number of new cases of prostate cancer in the ACT increased over that time (Figure 1) due to population increases and the ageing of the population.

Trends in prostate cancer incidence also reflect an effect of early diagnosis of asymptomatic cancers by prostate specific antigen (PSA) testing. Following the listing of the PSA test on Medicare Australia’s Medical Benefits Schedule in 1988, incidence of prostate cancer increased dramatically, with age-standardised rates rising from around 44 to more than 200 diagnoses per 100,000 between 1987 and the peak in 2008. Since 2008, there has been a rapid and sustained decrease to 138 diagnoses per 100,000 men in 2014.

How have prostate cancer death rates changed over time?

The number of deaths from prostate cancer in ACT men increased from 19 in 1994 to 34 in 2014 (Figure 1). Over the same period, the age-standardised mortality rate decreased from 30.9 deaths per 100,000 males (1994) to 23.1 deaths per 100,000 males (2014) (Figure 2).

While trends in mortality rates from prostate cancer have been relatively stable over time, there has been an increase in the number of deaths because of the increase in the population of the ACT and the growth in the proportion of older people in the population.

The role of PSA testing in mortality trends is unlikely to be seen for several more years.
One-, two-, three-, four- and five-year survival from prostate cancer

During the period 2003-2012, compared to their counterparts in the general population, males diagnosed with prostate cancer in the ACT had a 98% chance of surviving for 1 year, falling to 95% surviving for five years (Table 1).

Table 1: Relative survival from prostate cancer, by years after diagnosis, ACT, 2003–2012, males

<table>
<thead>
<tr>
<th>Years after diagnosis</th>
<th>Survival (%)</th>
<th>95% confidence interval</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>98.1</td>
<td>97.3 - 98.9</td>
</tr>
<tr>
<td>2</td>
<td>96.6</td>
<td>95.4–97.7</td>
</tr>
<tr>
<td>3</td>
<td>95.6</td>
<td>94.2–96.9</td>
</tr>
<tr>
<td>4</td>
<td>95.2</td>
<td>93.6–96.7</td>
</tr>
<tr>
<td>5</td>
<td>94.9</td>
<td>93.1–96.6</td>
</tr>
</tbody>
</table>

Australian burden of disease for prostate cancer

Despite improvements in survival since the early 1980s, prostate cancer (responsible for around 3,400 deaths a year) accounts for 5.1% of the burden of dying early from cancer in Australia. Due to the older age at which men die from prostate cancer (the average age of death from prostate cancer in Australia in 2011 was 80 years) it is the leading cause of non-fatal cancer burden (ie. the burden of living with cancer) in males from age 45 onwards (32.4%).

PSA testing

Based on recognised limitations in the PSA test’s characteristics, uncertainty regarding optimal treatment for localised disease and the risk of significant adverse effects associated with treatment, population-wide screening for prostate cancer remains controversial; however, opportunistic testing (case-finding among men with or without urological symptoms) is widely used. It is estimated that around 1 in 5 Australian men aged 45-74 years had a PSA test in 2012. Men of average risk, who decide to undergo PSA testing for prostate cancer, are advised to discuss the harms and benefits of testing with their general practitioner.

The ACT Prostate Cancer Outcomes Registry

The ACT arm of the National Prostate Cancer Outcomes Registry Australia New Zealand (PCOR ANZ) was established in July 2015 with the aim of improving knowledge about diagnosis, patterns of care and outcomes of treatment following a diagnosis of prostate cancer. The data collected will help to guide best clinical practice, improve quality of patient care and provide information about where ACT Health resources are most needed.

For more information, see: https://pcor.com.au

REFERENCES

1. ACT Cancer Registry. Canberra.