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INTRODUCTION

Urological cancers are among the most common cancers in NSW. Between 2000 and 2005 there was a 37.7% increase (2005 = 7,798) in the reported incidence of urological cancer in NSW. It is projected that there will be a further 36.4% increase between 2005 and 2011 (2011 = 10,699) primarily due to an increase in prostate cancer.

Prostate cancers are being detected at earlier stages, with high survival rates (88.5%) following treatment, resulting in large numbers of patients requiring long term follow-up.

The projected increased in urological cancers, and the ageing of clinicians working in the health sector creates a range of challenges and opportunities in service development.

PURPOSE

The Cancer Institute NSW undertook a review of urological services in NSW in the context of rapid increases in diagnoses of prostate cancer. The purpose was to develop a long term strategy for urological cancer services and a one-year operational plan.

METHODS

Situational Analysis

A review of the available literature and data to identify the information available. A survey was sent to public and private hospitals that providing urological oncology services in order to address gaps in information.

Consultation with stakeholders

A survey informed by an accompanying discussion paper was sent to public and private hospitals providing urological cancer services, plus other stakeholders. This was followed where possible with one-one interviews with staff at urological services.

Development of Operational Plan

Differences in service delivery models across regions were identified and thus opportunities for service improvement. Descriptive data was consolidated with identified projects and activities to produce a draft operational plan.

Priority Areas

A consultation process refined the potential target areas into a final list of priority areas for the Cancer Institute NSW.

RESULTS

1. Urological Cancer in New South Wales

Urological cancers incorporate malignancies of the prostate, bladder, kidney, urethra, testes and penis. Cancer of the prostate is the most common cancer in NSW, accounting for 30.6% of all cancers in males, and is increasing in incidence and prevalence. Other urological cancers are somewhat less common, but treatment and follow-up can be resource consumptive and expensive.

Urological Cancer Incidence in NSW

Urological cancer incidence in NSW for the period 2000 – 2005 was analysed. The incidence of kidney, bladder and testis cancers remained relatively constant in the period, whereas there was a 53.4% increase in the incidence of prostate cancer. Part of this increase is attributable to the increasing number of men in the older age groups (65 years and over) as prostate cancer is predominantly a disease of older men. Some of the increase may also be attributable to an increase in the use of PSA testing.

Table 1

Tumour site	Years						Increase 2000-2005
	2000	2001	2002	2003	2004	2005	
Prostate	3,879	3,918	4,220	4,720	5,524	5,950	53.4%
Kidney	835	870	875	814	916	881	5.5%
Bladder	778	830	801	792	787	795	2.2%
Testis	204	237	217	232	206	215	5.4%
Total	5,696	5,855	6,113	6,558	7,433	7,841	37.7%

There was a 32% increase in the prostate cancer age-standardised incidence rate per 100,000 population in NSW, from 130.6 (per 100,000) to 171.8 in the period from 2000 to 2005 (Table 1), indicating that population change alone does not account for the increased incidence of prostate cancer. The incidence rates for the major urological cancers in NSW were similar to the national incidence rates in 2004 (the most recently available data). The 28% growth in the incidence rate for prostate cancer in NSW (130.6 to 167.1) is consistent with the 27% growth in the national rate (128.2 to 163.4) in the period 2000 to 2004.

Urological Cancer Projected Incidence in NSW

The incidence of prostate cancer is expected to increase by 32.7% from 2007 to 2011 (Table 2) reflecting growth comparable to the increase from 2000 to 2005, which was 53.4% for a six-year period. The increase in the incidence of the other major urological cancers is more moderate although higher than the increases in the period 2000 to 2005.

Table 2

Projected incidence of urological cancer in NSW 2007 - 2011

Tumour site	Years					Increase 2007-2011
	2007	2008	2009	2010	2011	
Prostate	6,395	6,779	7,334	7,891	8,448	32.1%
Kidney	984	1,012	1,042	1,071	1,098	11.6%
Bladder	844	854	867	881	894	5.9%
Testis	237	243	249	254	259	9.3%
Total	8,460	8,888	9,492	10,097	10,699	26.5%

Hospitalisation for Urological Cancer in NSW

Currently, 8.4% of NSW public hospital separations and 13.7% of NSW private hospital separations have a principal diagnosis of cancer

Urological cancer accounts for 25% of all separations of patients with cancer in 2003/2004. In 2005/06 some 49.7% of the public hospital separations and 67.6% of the private hospital separations were for prostate cancer. Overall, public hospital separations for urological cancers have grown by only 7% in the period from 2001/02 to 2005/06 whereas private hospital separations have grown by 21%.

Taking public and private hospitals together, separations for patients with prostate cancer have grown by 30.4% from 8,496 to 11,087 in the period from 2001/02 to 2005/06. This compares with a growth in incidence of prostate cancer of 51.9% in the period from 2001 to 2005.

2. CHALLENGES

- An increase in prostate cancer incidence and prevalence.
- The ageing of the workforce and subsequent retirement of urologists could lead to shortages of experienced clinicians.
- Agreement on the preferred standard treatment has yet to be reached internationally.
- Insufficient identification and management of continence, sexual, and psychosocial issues.
- Insufficient data collection in both the public and private sectors.

3. STAKEHOLDER CONSULTATION

The consultation process identified 32 projects across nine priority areas, these were subsequently reduced to 14 (Table 3).

Table 3

NSWOG - Operational Plan for Urological Cancer - 14 options

Define a new practitioner role in urology oncology
Conduct Bladder outcome research
Endorse a standardised psychosocial tool
Develop a patient outcome database
Develop a Bladder cancer surveillance protocol
Develop staff specialist/academic urologists positions
Develop a Memorandum of Understanding between The Cancer Institute NSW and the Australian Prostate and Urogenital Group (APUG) to improve clinical trial participation
Develop Training options for lead clinicians
Create Resource benchmarks for urological cancer
Develop an MDT referral criteria for urological cancers
Sponsor/ host an International Urology meeting in NSW
Data abstractors
Develop Pathology synoptic reporting for urological cancers

A final consultation process which examined resource availability and identified where the work may have already commenced identified five priorities.

4. PRIORITY AREAS

1. Define appropriate criteria and identify professional grouping to undertake follow-up urology oncology

- There is evidence that the numbers of practising urologists in NSW may not keep pace with the increasing incidence and prevalence of urological cancer, particularly prostate, over the next 10 years.
- Service delivery capacity is often utilised for follow-up of existing patients and hence reduces the ability of specialists to treat new patients.
- Other practitioners could, ideally, conduct supervised follow-up of urological cancer patients and possess some expertise in continence and sexuality counselling and may build upon existing nursing and/or cancer care coordinator roles.

2. Endorsement of a standardised psychosocial tool

- Evidence suggests that psychosocial services are underutilised by men with prostate cancer.
- The Cancer Institute NSW is conducting additional projects relating to psychosocial care.
- A psychosocial screening tool should address issues related to incontinence and sexuality issues.

3. Memorandum of Understanding (MoU) with the Australian Prostate and Urogenital Group (APUG)

- There are relatively few clinical trials available to urological cancer patients compared to some other tumour streams. This is complicated by the situation where 50% of prostate treatments are carried out in the private sector, where clinical research has a low priority.
- The development of a MoU between NSWOG – Urology and APUG, creating a semi-formal arrangement was seen as a way to strengthen clinical research in urological cancer in NSW.

4. Bladder cancer surveillance protocol

- Currently bladder cancer surveillance is performed by rigid cystoscopy under general anaesthetic which requires hospital admission and access to an operating theatre.
- Other methods are available for use in an ambulatory care situation. The most widely accepted of these methods is flexible cystoscopy.

5. Develop Multidisciplinary Team (MDT) urological cancer referral criteria

- There are insufficient resources for every urological cancer patient to be referred to a MDT.
- There is a need for standardised criteria for MDT referral so that similar cases should be reasonably expected to have equal access to MDT referral.

CONCLUSIONS

- Predicted increases in the number of diagnosed prostate cancers combined with the ageing of the working population create challenges for urological cancer service development.
- Examining frequency of follow up of prostate cancer survivors, and the competencies required by staff who could potentially provide follow up may assist in dealing with the increased numbers of prostate cancers over the next decade.
- Psychosocial support for dealing with sexuality and continence is a priority for urological cancer.
- Clinical trial participation may be increased by greater cooperation between urological research groups.
- The issue of bladder cancer surveillance by flexible cystoscopy has yet to be resolved.
- Referral protocols to urological cancer MDTs are required to meet the expected increase in demand.