

## **SYMPTOMS OF LOWER URINARY TRACT SYMPTOMS AFTER PROSTATE CANCER TREATMENT**

### Hypothesis / aims of study

Prostate cancer is the most commonly diagnosed non-cutaneous cancer in Australian males and incidence rate have increased between 1982 and 2007 [1]. Lower urinary tract symptoms (LUTS) is a common complication associated prostate cancer treatments such as prostatectomy, radiation therapy, and brachytherapy [2] and it can have a significant effect on quality of life [2,3]. The aim of this cross-sectional survey was to establish the prevalence and severity of LUTS after prostate cancer treatment

### Study design, materials and methods

This cross-sectional study was undertaken between July and December 2010 in 21 prostate cancer support groups across New South Wales (NSW) and Queensland (QLD), Australia. LUTS includes storage symptoms (urinary incontinence, including urgency, stress urinary incontinence, unconscious leaking) as well as voiding (including hesitancy, straining, slow stream, intermittency) and post-micturition symptoms (incomplete emptying).

In order to investigate the prevalence of LUTS in the general community, 258 men who have had treatment for prostate cancer were asked to complete the ICIQ-MLUTS questionnaire (based on the ICSmaleSF). An additional questionnaire, which was designed for this study, asked for details of general health, prostate cancer treatment options, pelvic floor muscle training before treatment and demographic characteristics. Chi-square tests were used to compare the prevalence of LUTs after prostate cancer treatment by treatment options.

### Results

All eligible men who attended support group meetings agreed to participate. Mean age was 69.9 years (Standard Deviation: 7.89; Range 45-95 years). Of the 258 participants, 211 (82%) were not employed (either retired or unemployed) and 77 (30%) had a tertiary degree/diploma. The table below shows that radical prostatectomy was the predominant treatment option (68%). A total 245 participants (95%) reported at least one LUTS symptom. The prevalence of urinary incontinence was greater (at 93%; n=240) than that of voiding or post micturition symptoms (38%; n=98). About 47% of participants (n=120) carried out pelvic floor muscle training before undergoing treatment and were significantly less likely to report LUTS symptoms (P= 0.0424).

Table 1. Prostate cancer treatments (N=258)

	n*	%
<b>Prostatectomy</b>	154	67.8
<b>Radiation therapy</b>	73	31.9
<b>Androgen Deprivation Therapy (ADT)</b>	85	36.8
<b>Brachytherapy (High dose)</b>	15	22.1
<b>Brachytherapy (Low dose)</b>	10	14.3
<b>Watchful Waiting</b>	5	2

\*Some participants had a combination

### Interpretation of results

Despite improved treatment techniques, LUTS remains significantly prevalent after prostate cancer treatment.

### Concluding message

As the risk of developing LUTS increases with increasing age and can be exacerbated by prostate cancer treatment [2], more research is needed in male LUTS, prostate cancer treatment and prophylactic pelvic floor muscle training.

### References

1. Australian Institute of Health and Welfare (AIHW). Cancer in Australia 2010: an overview. Cancer series no. 60. Cat. no. CAN 56. 2010. Canberra: AIHW
2. Michaelson, M. D., S. E. Cotter, et al. "Management of complications of prostate cancer treatment." CA: a Cancer Journal for Clinicians. 2008; 58(4): 196-213
3. Eton D, Lepor S. Prostate cancer and health-related quality-of-life: a review of the literature Psycho-oncology. 2002; 11(4):307-26

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### Is this a clinical trial?

No

### What were the subjects in the study?

HUMAN

<b><i>Was this study approved by an ethics committee?</i></b>	<b>Yes</b>
<b><i>Specify Name of Ethics Committee</i></b>	<b>The Human Research Ethics Committees of the University of South Australia and the University of Newcastle</b>
<b><i>Was the Declaration of Helsinki followed?</i></b>	<b>Yes</b>
<b><i>Was informed consent obtained from the patients?</i></b>	<b>Yes</b>