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## Knowledge and attitudes of men to prostate cancer

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## **KNOWLEDGE AND ATTITUDES OF MEN TO PROSTATE CANCER**

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## ABSTRACT

**Objective:** To ascertain the current level of understanding about prostate cancer (PCa), including treatment options and potential side effects of treatment, among older men.

**Design and Setting:** Questionnaires administered by general practitioners (GPs) in 5 general practices in the Perth metropolitan and regional areas of Western Australia.

**Participants:** Convenience sample of men aged 40-80 years (n=503) with or without prostate cancer presenting for routine consultations.

**Main outcome measures:** Knowledge and attitudes of men to prostate cancer

**Results:** Eighty percent of men did not know the function of the prostate and 48% failed to identify PCa as the most common internal cancer in men. Thirty-five percent had no knowledge of the treatments for PCa and 53% had no knowledge of the side effects of treatments. Asked how they would arrive at a decision about treatment, 70% stated they would ask the GP/specialist for all their options and then decide themselves.

**Conclusion:** This study confirms a deficit in knowledge of the disease among men in the at risk age group. Lack of knowledge encompassed areas which could delay diagnosis and hence treatment. Overall the population preferred some GP/specialist involvement in treatment decision making.

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## INTRODUCTION

Prostate cancer (PCa) remains the most commonly diagnosed non-cutaneous cancer and the second most common cause of cancer mortality in Australian men.<sup>1</sup> Incidence rates increase dramatically over the age of 65 years with mortality rates increasing more rapidly over the age of 70. When discussing prostate cancer with at-risk patients GPs often find themselves having to balance the demands and expectations of individuals-influenced by personal experience of having a family

member or friend with the disease<sup>2</sup> and screening guidelines that are predominantly non-interventionist<sup>3</sup>. There is a need to ascertain the current level of understanding about PCa, the treatment options available and the potential side effects amongst an age group of men who are likely to have to utilise such information in the not too distant future.

## **METHODS**

The study was undertaken in 5 general practices: 3 in metropolitan Perth and 2 in regional areas in Western Australia (WA) between January and August 2006. The target population was a convenience sample of men aged 40-80 years, with or without PCa, presenting to their GP for routine consultations. Only patients who provided written informed consent were included in the survey. Participation rate was 97%. The questionnaire based on that used by Brett,<sup>4</sup> was administered verbally by the GP during the consultation. The total study cohort comprised 503 men.

### **Data Analysis**

Data are presented as frequencies  $\pm$  95% confidence intervals (CIs) and odds ratios (OR)  $\pm$  95% CIs. Odds ratios were calculated using the survey-logistic procedure in SAS, stratified according to practice to account for cluster sampling. All associations were adjusted for potential confounding effects of age.  $P < 0.05$  was considered statistically significant.

## **RESULTS**

The median age of men in the study was 62 (interquartile range = 18) years. Ninety-seven percent (CI, 95-98) identified themselves as Caucasian. Fifty-three percent (CI, 55-64) had received an education to high school level and 40% (CI, 36-44) had a higher qualification. Just over half the cohort had some previous exposure to PCa; 30% (CI, 26 -34) had had a friend with the disease and 6% (CI, 4-8) had the disease themselves. Where family history of PCa existed (16%: CI, 13-20), 61% (CI, 50-72) was through their father, 6% (CI, 2-14) through their grandfather with 18% (CI, 11-28) and 15% (CI 7-24) through their brother or uncle, respectively. Three quarters (CI, 71-79) of the cohort had one or more previous prostate related examinations. The most common tests undertaken were prostate specific antigen (PSA; 59%; CI, 54-63) or digital rectal examination (DRE; 56 %; CI, 51-60). Only 5% had undergone trans-rectal ultrasound (TRUS; CI, 4-7) and/or biopsy (CI, 4-8).

#### **Patients' knowledge of PCa and possible treatments available**

Twenty percent (CI, 16-24) of respondents knew the function of the prostate. Prostate cancer was correctly identified as the most common internal cancer in men by 52% (CI, 47-57). Men believed that PCa was very likely or somewhat likely to cause difficulty with urination (94%; CI, 92-96) or impotence (89%; CI, 86-92), chronic groin pain (73%; CI, 67-77) or rapid death (58%; CI, 53-62).

When asked to identify treatments for PCa, 35% (CI, 31-40) said they had no idea, 54% (CI, 49-58) identified surgical removal of the prostate, 26% (CI, 22-30) identified radiation, 24% (CI, 21-28) identified drug/hormone treatments and 4% (CI, 2-5) orchidectomy. Fifty-three percent (CI, 48-57) had no idea of the side effects of treatments; a third (29%; 25-33) identified impotence as a possible

side effect followed by incontinence (19%; CI, 16-23), poor urine flow (17%; CI, 14-21) and drug effects (8%; CI, 6-11).

### **Patients' attitudes to treatment and possible side-effects**

Sixty eight percent (CI, 64-72) of respondents rated themselves as potent. Only 10% (CI, 8-13) stated they would refuse treatment for PCa if impotence was a possibility, whereas 16% (CI, 13-19) said they would refuse treatment if incontinence was a possibility.

Though 67% (CI, 64-72) of patients said they would accept watchful waiting (expectant treatment) with doctor follow-up for a slow growing cancer, 51% (CI, 47-56) said they would not rule out the possibility of more active treatment. There was no obvious age difference in the latter group. Asked how they would arrive at a decision about treatment, 70% (CI, 66-74) stated they would ask the GP/specialist for all their options and then decide, 11.5% (CI, 9-15) stated that they would try to find out as much as possible independently and 27% (CI, 23-31) reported they would leave it to their GP and/or specialist to decide. Within the 40-49 year age group, 17% (CI, 9-27) reported wanting to make independent decisions about treatment options compared with 4% (CI, 2-9) in the 70+ years age group.

### **Factors that impact on knowledge and attitude**

Men were more likely to correctly identify PCa as being the most common internal cancer in men if they had any previous exposure to PCa (OR 1.49: CI, 1.03-2.16) and if they had at least one previous examination for PCa (OR 2.09: CI, 1.26-3.46). Age, education, prior exposure to PCa

(family member, friend or self having had the condition) or having had a previous examination, had no impact on knowledge of prostate function. These factors however, were associated with an increased awareness about the treatment options and treatment side-effects for PCa (see Table 1). Men aged 50-70 years were more aware of the treatments and their side-effects than men aged 70+ years.

Acceptance of incontinence or impotence as a side effect of treatment for PCa was not associated with having any previous exposure to PCa, previous examination for PCa, level of education, age or current potency.

## **DISCUSSION**

Approximately half of the men completing the survey had previous exposure to PCa either through a relative or friend or less commonly, by having the disease themselves. Knowledge concerning PCa was generally poor but previous exposure increased knowledge of treatment options and side effects of treatment.

There was a high and erroneous expectation among the study population that impotency would be somewhat or very likely with PCa. The expectation of pain and problems with urination confirms a lack of knowledge which could lead to a fear of how this cancer might progress. Generally men were accepting of the potential side effects of treatments. Half of the cohort did not know that impotency and incontinence were the side effects of treatment. However, when specifically asked if they would refuse treatment given that these were possibilities, only a minority said they would.



Interestingly, acceptance of these side effects was not related to age, potency or having had previous exposure to PCa.

The prevalence of prostate examinations in this study was 20% higher than previously reported for any PCa test in Australia and New Zealand.<sup>5-8</sup> Two of these studies<sup>6, 8</sup> however, do not clarify if “any test” included TRUS and biopsy as was the case in the present study. PSA tests were more common in the current study: 58.6% compared with the reported prevalence of 43% in WA.<sup>8</sup> While this may be seen as a pitfall of dealing with a clinical cohort rather than population based cohort, it is useful in this instance in that it provides a natural cohort to assess if previous exposure to tests for PCa has an impact on knowledge of and attitude to the disease.

Unlike indices of knowledge, having had a previous exposure to, or having had a previous exam for PCa had no effect on patient attitudes to treatment side effects. This is not unusual as previous research<sup>9</sup> has shown that there is no difference in the attitudes of men considering a hypothetical diagnosis of PCa and those already diagnosed with the disease.

Younger men are more likely to want to be involved in treatment decision making.<sup>10, 11</sup> The current study showed that men in the 40-49 year old age group, though no more knowledgeable than older men (aged 70+ years) about treatment options and side effects, were likely to make independent decisions about treatment options. Overall the population preferred some GP/specialist involvement in treatment decision making.

Patients are generally receptive to information and assimilate information correctly. A brief patient decision aid on PSA testing for PCa increased knowledge of benefits and risks associated with

undertaking tests.<sup>12</sup> Patients, though aware of their own lack of knowledge and despite believing that their specialist or GP would be the preferred source of information on PCa<sup>13</sup>, are often reticent about asking for more information.<sup>14</sup> It is often up to the doctor (usually the GP) to proffer this information in a suitable manner.<sup>15-17</sup> Better knowledge has been shown to facilitate patient participation in decision making.<sup>11</sup>

This study confirms significant knowledge deficits regarding PCa and the treatment options available with some extreme fears among men aged 40 years and older. Despite the availability of good factual information<sup>18</sup> GPs still play a central role in the provision of information to at-risk, ageing men about the high technology tests and treatment options that many will inevitably face. To do otherwise is to deny many patients the quality of counselling and care to which all GPs should aspire to provide.

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