SCREENING

**APPLYING THE WILSON AND JUNGNER CRITERIA TO PROSTATE CANCER**

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| **Criteria** | **Arguments for** | **Arguments against** |
| THE DISEASE | | |
| Important public health problem | They argued that Prostate cancer is the most commonly diagnosed cancer, and the third leading cause of cancer-related death among men in Canada. The lifetime risk of Canadian males being diagnosed with prostate cancer is 14.3%. %. The prevalence of undiagnosed prostate cancer at autopsy is high and increases with age | They argued that the risk of death from this cancer I s only at 3.6%.  And that In Canada, the five-year net survival for prostate cancer is among the highest of all cancers at 95% compared to other cancers.  This shows that it is not the deadliest cancer out there for it to be of national concern |
| Natural history, including development from latent to declared disease, is adequately understood. | They argued that Prostate cancer usually develops slowly, and You are eligible for a test if you fall under this known risk factors such as age, having an affected father or brother, and (for reasons not understood) being of African-Caribbean or African descent | They argued that The causes of prostate cancer are largely unknown.so they is no proof to support the theory of those at risk factors |
| Recognizable latent or early symptomatic stage. | Prostate cancer usually develops slowly, but when fully developed it causes frequent urination (particularly at night), weak or interrupted urine flow, and blood in urine or semen | They argued that some patients with prostate cancer can be asymptomatic for many years. |
| THE SCREENING TEST | | |
| Suitable test or examination available that is safe, valid, simple, cheap and reliable | Prostate-specific antigen (PSA) is a biomarker for prostate cancer. The test, which can be done at a doctor’s surgery, is a blood test – it measures the level of PSA in the blood | PSA does not correctly identify all those who do and do not have prostate cancer.  PSA screening thresholds vary. Typically, a threshold between 3.0 ng/ml and 4.0 ng/ml is used, although thresholds as low as 2.5 ng/ml have been reported. Lower thresholds increase the probability of false-positive results. No threshold completely excludes prostate cancer. |
| Test is acceptable to the population | Since it is a blood test , conducted by a doctor and a non-invasive and painful method , it will be acceptable to the population | The process of biopsy as a treatment method is invasive and will not be acceptable by the population. |
| DIAGNOSTIC TEST AND TREATMENT | | |
| An agreed policy on whom to treat as patients. | Those with a positive PSA screen will be invited for biopsy | PSA screening thresholds vary. Typically, a threshold between 3.0 ng/ml and 4.0 ng/ml is used, although thresholds as low as 2.5 ng/ml have been reported. Lower thresholds increase the probability of false-positive results. No threshold completely excludes prostate cancer.  They also argued about situation referred to as Over diagnosis this occurs when cancer is detected correctly but would not cause symptoms or death, Over diagnosis leads to overtreatment  The European Randomised Study of Screening for Prostate Cancer (ERSP) estimated the prevalence of over diagnosis ranged from 40% to 56% of men screened by PSA who went on the receive a diagnosis of prostate cancer. |
| An accepted treatment for patients with recognized disease. | Radical prostatectomy, radiation therapy and androgen deprivation therapy. | Radical prostatectomy is associated with severe and long-term complications such as incontinence and erectile dysfunction |
| Facilities for diagnosis and treatment should be available. | The European Randomized Study of Screening for Prostate Cancer (ERSPC) is a multi-centre RCT conducted across 7 European countries, Canada happens to have some of this standard clinics | Making this screening a national screening is to further burden the already saturated health care system |
| OVERALL SCREENING PROGRAMME | | |
| Cost of case-finding (including diagnosis and treatment of patients diagnosed) should be economically balanced in relation to possible expenditure on medical care as a whole. | A simulation study based on ERSPC data found that screening between the ages of 50 and 59 years, with two-year intervals, had an incremental cost-effectiveness ratio of $73,000 US per Quality Adjusted Life Year (QALY) gained. This is equivalent to approximately $95,000 CAD and is below the $100,000 CAD cost effectiveness threshold | They argued that this the cost data obtained from the ERSPC study may not be generalizable to Canada.  And that Screening above the age of 60 was not considered cost-effective because of loss of QALYs due to over diagnosis. |
| Case-finding should be a continuing process and not a “once and for all” project. | This screening has to be a continuous process due to increase in this cases, Canada has a standard health care system to conduct this. | They is no evidence to support that case finding should be a continuous process |

**RECOMMENDATION**

We recommend *not-screening* for prostate cancer with the prostate-specific antigen (PSA) test.

The task force based this recommendation on the overall balance between the possible benefits and harms of PSA screening:

1. There is no evidence that PSA screening increases life expectancy and reduced mortality rate in men
2. There is no clear cut evidence of highlight does at most risk of prostate cancer neither is there a known causative factor
3. For those that had a positive PSA screening, biopsy and treatment leads to harm in the form of false positives (unnecessary treatment and anxiety for the patient), false negatives (patients may be wrongly reassured and ignore symptoms) , and even death