

# Ethical debates generated by prostate cancer screening

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## ABSTRACT

Prostate cancer is the second most diagnosed type of cancer in men worldwide. In this case, screening is very important, being essential for early diagnosis and the establishment of a more effective treatment. The screening method available is the combination between rectal examination and prostate-specific antigen test (PSA), which brings up debates regarding its validity, since it can cause iatrogenic effects. This study aims at describing the findings concerning ethical issues in prostate cancer screening. This is an integrative review with articles published between 2010 and 2020 found in BVS, PubMed and SciELO platforms. Despite the benefits of an early diagnosis in prostate cancer, the possibility of iatrogenic effects caused by false positive results and the institution of therapeutic approaches in older patients without benefits that justify their use shows the need for an individualized and shared decision about prostate cancer screening.

**Keywords:** Ethics; Prostatic Neoplasms; Cancer Screening; Prostate-Specific Antigen; Quality of Life.

## RESUMO

### Debates éticos gerados pelo rastreio do câncer de próstata

O câncer de próstata é o segundo tipo de câncer mais diagnosticado em todo o mundo para o sexo masculino. Nesse sentido, o rastreio tem um papel de destaque, sendo importante para o diagnóstico precoce e o estabelecimento de um tratamento mais efetivo. Ao mesmo tempo, o método de rastreio disponível atualmente, baseado na combinação entre o toque retal e a dosagem do antígeno prostático específico (PSA), desperta debates quanto a sua validade, uma vez que sua realização pode ser iatrogênica em alguns casos. O presente trabalho objetiva discutir os achados da literatura quanto à ética no rastreio do câncer de próstata, tratando-se de uma revisão integrativa em que foram selecionados artigos do período de 2008 a 2020 disponíveis nas plataformas BVS, Pubmed e Scielo. Embora sejam claros os benefícios de um diagnóstico precoce do câncer de próstata, a possibilidade de iatrogenias causadas por resultados falsos positivos, bem como a instituição de abordagens terapêuticas em pacientes idosos sem que haja benefícios para tal, assinala a necessidade de que a decisão sobre o rastreio seja individualizada e compartilhada com o paciente.

**Palavras-chave:** Ética; Neoplasia da Próstata; Detecção Precoce de Câncer; Antígeno Prostático Específico; Qualidade de Vida.

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The authors declare that there is no conflict of interests.

## Introduction

The prostate is a gland of the male reproductive system that, from changes in cell function, usually increases with aging, and may develop neoplasms. Many factors are pointed out as determinants for the increase in the incidence of prostate cancer, among them the following stand out: the increase in life expectancy; constant campaigns to identify the neoplasm, which started to diagnose more men with the disease; environmental and dietary influences, such as high energy consumption, intake of red meat, fat and milk.<sup>1</sup>

Currently, prostate cancer is considered the second most diagnosed type of cancer worldwide for males and the fifth most common among cancer diagnoses in both sexes.<sup>1</sup>

In this context, screening tests are an important step in the approach to the patient, after all, with early diagnosis, there is an opportunity to more effectively offer a treatment method to maintain the quality of life of men.<sup>2</sup> Regarding the adherence to the performance of the digital rectal exam, one of the main screening tests for prostate cancer, we can highlight mainly symbolic aspects related to its uncomfortable character, from a physical and emotional point of view, and the spread of fear of having the exam among men themselves.<sup>3</sup>

From a general perspective, the doctor-patient relationship in oncology already has its own peculiarities. As it is a disease perceived as traumatizing, both in its form of screening and in its diagnosis (because it is cancer), in the personal and collective imagination, its approach is especially difficult. Anxieties, fears and suffering are present in the lives of patients and their families, which makes it necessary to establish a bond with the professional as a therapeutic adjuvant.<sup>2</sup>

The present work aims to present the findings in the literature regarding the ethical debate in prostate cancer screening.

## Methodology

This is an integrative literature review in which a relevant topic for medical practice was initially selected and a search was carried out for articles that answered the guiding question with subsequent analysis and discussion of the data found.

The platforms used to search for articles were the Virtual Health Library (*Biblioteca Virtual de Saúde – BVS*), Scielo and PubMed. The following keywords were used: “*câncer de próstata*” and “*ética*”, as well as the corresponding ones in English. Of the articles found, those that were not related to the topic and those that did not have the full text available electronically were excluded. Only texts in Portuguese and English published between 2010 and 2020 were selected.

## Development

With the advancement of medicine and diagnostic methods, a discussion about the risks and benefits involved in screening for the most diverse types of cancer emerged. Prostate cancer, in turn, has been the subject of controversial discussions in the medical field. This is because, a few years ago, screening tests were encouraged for all men over 40 years of age. However, the real benefits of this practice have been questioned. Because of this, currently, there is no consensus on whether or not to carry out such screening.<sup>4</sup>

In 2011, the U.S. Preventive Services Task Force (USPSTF), an American institution active in the field of disease prevention, issued a recommendation discouraging the screening of prostate cancer through the measurement of prostate specific antigen (PSA). In Brazil, the Brazilian Society of Urology recommends that men over 50 seek a specialized professional, thus seeking an individualized assessment. In addition, after 75 years of age, other factors must be taken into account when considering cancer screening, especially comorbidities, which are closely related to life expectancy.<sup>4,5</sup>

This discussion becomes broad when thinking about bioethical principles, which should govern the conduct of all health professionals. Cancer screening, in general, is based on the search for greater survival through the installation of an earlier and more efficient treatment, that is, beneficence. However, all diagnostic methods are likely to result in false positives and false negatives, which exposes patients who are subject to screening to possible unnecessary and harmful interventions and even to the deleterious effects of the stress of a cancer diagnosis. By placing the patient in this role of risk for possible harm arising from a poorly indicated therapy, the principle of non-maleficence is called into question, as the health professional may be subjecting that individual to suffering in an irreversible way. A wrong diagnosis of prostate cancer and, consequently, inadequate treatment can generate significant side effects for the patient, as the therapies are associated with the possibility of developing sexual impotence, urinary incontinence and other irritating symptoms of the lower urinary tract.<sup>6</sup>

Furthermore, despite the easier access to prostate cancer screening means, a process initially based on digital rectal examination and PSA dosage, its performance should not be done in a compulsory way, since respect for the patient's autonomy should be the basis of making all decisions. Thus, several institutions advise that patients are informed about the potential benefits and risks involved in the screening process for prostate cancer, seeking to raise their awareness about the possibilities offered by the health system. Thus, through shared consideration between health professionals and patients, the decision on whether or not to carry out screening can be made in a safer and fairer way, based on consolidated ethical principles.<sup>6-8</sup>

## Final considerations

Screening for prostate cancer in general can result in an important number of false positive diagnoses, subjecting patients to unnecessary and, in some ways, iatrogenic interventions.

Another important concern is the elderly population. Prostate cancer is one of the most prevalent neoplasms in men and this prevalence increases with age. However, the evolution of the disease is often slow, so that an intervention at extremes of age may not result in a significant increase in survival, in addition to causing undesirable complications, negatively impacting the patient's quality of life.

Thus, the decision for screening for prostate cancer must be made individually and shared with the patient, clearly exposing its benefits and harms, as well as the possibilities for follow-up.

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**Received on:** 12/11/2020

**Required revisions:** 12/17/2020

**Approved on:** 12/17/2020

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