Prostate cancer screening in transgender patients: Why current Canadian screening policies need to be better tailored to our patients

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INTRODUCTION

KEY MESSAGES

- Recent findings reveal a higher prevalence of prostate cancer among transgender and gender-diverse (TGD) individuals than previously recognized.
- Existing prostate cancer screening protocols are not inclusive of TGD patients.
- The impact of gender-affirming therapy PSA levels necessitate a tailored approach to prostate cancer screening and result interpretation.
- There is a need to integrate inclusive language into screening guidelines and foster further research on prostate cancer within the TGD population, allowing for the development of evidence-based, risk-adapted PSA testing strategies.

Population studies estimate that 1% of adults self-identify as transgender or gender diverse (TGD).[1] TGD individuals have a different gender identity than their sex assigned at birth and may undergo social, medical, and/or surgical interventions as part of their transition. In TGD individuals with a prostate who take gender-affirming hormone therapy (GAHT), prostate cancer (PCa) has generally been thought to be rare, with prevalence estimates ranging between 0.04% to 1%.[2,3] However, recent evidence has challenged this notion and demonstrated evidence of underdiagnosis and delayed presentation contributing to the low prevalence.[4] These estimates come from U.S. studies and Canadian data is lacking. In any case, as the TGD patient population increases, PCa in this population will become more prevalent.[5]

Currently, PCa may be underappreciated and underdiagnosed among TGD individuals for a variety of reasons which, in aggregate, are likely to contribute to lower screening rates. These barriers include a lack of prostate cancer risk awareness, the stigma around screening, the belief among certain patients and physicians that estrogen should suppress PCa development, or misinterpretation of "normal" PSA levels among those receiving GAHT or following orchiectomy leading to a failure of the screening strategy. While non-urologic organizations such as the Endocrine Society recommend that TGD women undergo individualized screening according to personal risk for PCa,[6] there is a lack of guidance from experts within the urologic community offering specific, actionable recommendations.

Current Canadian PCa health policies can be improved to be inclusive of TGD patients. We outline these opportunities and suggest areas of health policy that Canadian urologists can act upon to ensure equitable access to PCa care for TGD individuals.

ENSURING INCLUSIVITY OF PROSTATE CANCER SCREENING GUIDELINES

Urologists inform access to care for their patients through the development of practice guidelines which impact how resources are distributed and accessed. Current guidelines can be improved to better address and support TGD patients.

First, PCa screening guidelines currently do not employ inclusive language, excluding certain individuals at risk of PCa. For example, the 2017 Canadian Urological Association (CUA) guideline on PCa screening and early diagnosis systematically refers to Canadian men. Exclusionary language in our guidelines may hinder culturally competent care and further exacerbate disparities experienced by TGD patients. A better approach would be to emulate the

language used in the 2022 updated CUA guideline on male lower urinary tract symptoms/benign prostatic hyperplasia which explicitly employs gender-inclusive language. For example, it specifically states "[the CUA guideline on male lower urinary tract symptoms/benign prostatic hyperplasia guidelines] should also be applicable to non-binary people, transwomen, and any patients who may have anatomical features of a cis-male genitourinary tract, such as a prostate."

Second, there is no actionable guidance on PCa screening and early detection in TGD patients. While this may in part stem from limited evidence in this population, many guideline statements are supported only by expert opinion. Without such guidance, we are potentially exacerbating the delayed diagnosis of PCa in TGD patients. Indeed, despite TGD women on GAHT having lower median PSA than cisgender males not on GAHT,[7] a recent study using the U.S. Veterans Affairs Health System found that median PSA at presentation in TGD women on GAHT diagnosed with PCa was 7.0 ng/mL.[4] Providing guidance on appropriate thresholds and simultaneously raising awareness of lower thresholds in this population may reduce misinterpretation of tests, avoiding delayed presentations and offering earlier access to PCa management. Extrapolating data from other cohorts, such as men with severe hypogonadism who also have low levels of circulating androgens, may provide insight into appropriate reference ranges.[8,9]

ADVOCATING FOR EQUITABLE SCREENING POLICIES

The current screening paradigm for PCa in Canada and elsewhere favors opportunistic screening. In this approach, PSA tests are offered to asymptomatic patients through shared decision-making with their primary care provider on a case-by-case basis, which favours those with higher health literacy and better access to care.[10–13] This method has led to overdiagnosis, exacerbated inequities, and provided minimal benefit.[12] This is likely particularly true for TGD patients who are already less likely to undergo screening compared to cisgender males and all other sexual and gender minority individuals.[14]

An organized, risk-based screening strategy would benefit not only TGD patients but all marginalized individuals by de-emphasizing the role of access to a well-informed primary care provider and the need to opportunistically engage in shared and informed decision-making for PCa screening. Similarly, it would provide clear guidelines to providers regarding when to offer PCa screening. In a secondary analysis of the Göteborg trial, also known as the Swedish section of the European Randomised Study of Screening for Prostate Cancer, reductions in PCa mortality associated with organized PSA screening were greater for those with lower educational levels than for those with higher educational levels, suggesting potential mitigation of disparities along the social determinants of health.[15]

While organized population-level PCa screening has been dismissed due to concerns with overdiagnosis and overtreatment,[16] there is renewed policy opportunity and research efforts, primarily in Europe, to develop better risk-stratified strategies.[17] In response to the European Commission's desire to extend targeted cancer screening to PCa, the European Association of Urology, with consortium members, has launched PRAISE-U (Prostate Cancer Awareness and

Initiative for Screening in the European Union) to support prostate cancer screening in Europe.[18] As such, Canadian urologists also have an opportunity to advocate for more sensible screening strategies that may enhance the equity of PCa screening in TGD patients by providing more equitable access to informed and shared decision-making.

PROMOTING RESEARCH

Canadian urologists have a pivotal role in advocating for increased research funding dedicated to understanding and improving PCa screening and treatment in TGD patients. While the scope of PCa screening in TGD patients may seem narrow for extensive funding, it is essential to establish robust research infrastructures that can address the unique healthcare needs of this population and promote overall health equity. Prioritizing studies that explore the optimal approaches for healthcare delivery, including PCa screening, can provide valuable insights and evidence. This can involve leveraging existing research frameworks, fostering collaborations with multidisciplinary teams, and encouraging the participation of TGD individuals in research to ensure their voices and experiences are adequately represented. Due to the known sparsity of current work in this field, multi-institutional and data-sharing approaches may be useful to develop appropriately powered analyses.

Furthermore, promoting the inclusion of TGD health in broader cancer research agendas can help secure the necessary funding and resources to support these initiatives. Research efforts must involve meaningful collaboration with TGD community stakeholders throughout all stages, from research design to dissemination. This collaboration among people with lived experience helps ensure the research is relevant, addresses specific needs, and fosters trust within the community. Beyond larger initiatives, continuing to support and expanding mechanisms such as the CUASF Equity, Diversity, Inclusion, and Accessibility grant can support incremental research in this space.

CONCLUSIONS

Current PCa screening policies can be improved to address the unique concerns of TGD patients. Addressing the need for updated PCa screening protocols for TGD patients requires a multifaceted approach. This involves developing more inclusive guidelines, advocating for equitable national screening recommendations and programs, and promoting research that involves and empowers TGD individuals. By advocating for these measures, Canadian urologists can contribute to fairer and more effective PCa screening, ultimately improving outcomes for TDG individuals at risk for PCa as well as equity in cancer screening and outcomes for the population as a whole.

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