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Cite as: Kokorovic A. Navigating the screening and treatment of prostate cancer. *Can Urol Assoc J* 2023;17(4):92-3 http://dx.doi.org/10.5489/cuaj.8340

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Navigating the screening and treatment of prostate cancer

Prostate cancer is the most common solid organ malignancy diagnosed in Canadian men;[1] however, national temporal trends remain to be elucidated.

In their recent publication, Saad et al use population data from the Institute for Clinical and Evaluative Studies (IC/ES) to describe the temporal trends in the incidence and prevalence of prostate cancer in Ontario between 1991 and 2019.[2] The authors stratified incidence and prevalence by disease state (localized vs. metastatic). Overall, the study shows that the number of men living with prostate cancer in Ontario (prevalence) has increased steadily over time. While most newly diagnosed cases were localized, there was also a trend toward increasing incidence of metastatic prostate cancer.

The Canadian Task Force on Preventative Health Care (CTFPHC) published its position on prostate cancer screening in 2014, which recommends against prostate-specific antigen (PSA) screening for all men.[3] Interestingly, despite the CTFPHC recommendation, the authors found that the number of overall new cases declined between 2011 and 2014, followed thereafter by a steady increase until 2018 (last year of the study period). Notably, the Canadian Urological Association (CUA) published its guideline on PSA screening in 2017 (updated in 2022), which recommended a shared decision-making approach for men with a life expectancy greater than 10 years.[4] The Ontario Ministry of Health and Long-Term Care recommends against population-based screening but provides guidance for screening based on informed decisions.[5]

Hence, real-world practice patterns do not necessarily reflect national taskforce recommendations and are likely to also be driven by association guidelines and provincial positions. As experts in the field, it is important we continue to advocate for patients through use of guidelines and educational materials for our patients and their primary care providers.

The steady increase in prevalence of prostate cancer demonstrated in this study, which is mainly driven by non-metastatic disease, will inevitably result in a higher number of patients undergoing local therapy. This may in turn increase rates of treatment-related toxicity, thereby causing a lasting impact on health-related quality of life. I am hopeful that toxicity will, at least in part, be mitigated by routine adoption of active surveillance for most low-risk men, and in select cases, favorable intermediate-risk disease. In addition, the evolving role of focal therapy in localized prostate cancer may further decrease treatment-related toxicity compared to conventional therapies.[6]

Lastly, the development of biomarkers combined with novel artificial intelligence technologies may, in the future, be used to differentiate patients who require active treatment vs. surveillance.[7] Together, these advances may significantly offset any potential harms from overtreating a very heterogenous disease.

The last decade has seen significant advances in the medical management of metastatic prostate cancer, with the life expectancy of men with metastatic castrate-resistant disease now in the range of several years. Researchers continue to push the field forward, and patients continue to benefit from extended survival. These advances, however, are not free of additional burdens posed to patients and their caregivers.

From a patient perspective, navigating a new advanced prostate cancer diagnosis can be challenging and isolating, and adverse treatment-related events are often the rule rather than exception. This has a downstream effect on caregiver burnout, which is very poorly explored in the literature.[8] As the number of metastatic prostate cancer cases increases and the life expectancy grows, we must adopt a holistic approach to the care of these patients.

In addition, novel therapies in the castrate-resistant prostate cancer realm are extremely costly, and there are increasing strains on the healthcare system to consider, as well as potential economic ramifications.

I would argue that it is in the best interest of patients, their caregivers, and society as a whole to decrease the number of men diagnosed and living with metastatic prostate cancer. To achieve this goal, we must promote screening in patients who are likely to benefit, and we must also demonstrate our ongoing commitment of doing no (or at the very least minimal) harm to those with low-risk localized disease.

COMPETING INTERESTS: The author does not report any competing personal or financial interests related to this work.

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