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COMMENTARY

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Is uptake of AS in low-risk prostate cancer in Ontario linked to guideline publication?

In 2025, active surveillance (AS) is the preferred management for low-risk prostate cancer, endorsed by every major guideline. This consensus has grown increasingly strong in recent years, but the scientific evidence supporting surveillance has been clear since the early years of this century. While most of the guidelines endorsing AS are focused broadly on localized prostate cancer, only the one issued by Cancer Care Ontario (CCO) in 2015[1] focuses explicitly on AS.

In this issue of *CUAJ*, Cheung et al examine the impact of this guideline on practice patterns across Ontario, finding an increase in the use of AS for grade group (GG) 1 from 43.7% in 2010 to 81% in 2018, and concluding that both ongoing trends prior to 2015 and the publication of the guideline have helped drive increased adoption of AS.[2] While their time series analysis suggests rates of AS were even higher than projected after the guideline's publication, visual analysis of the trends over time (Figure 2 in the paper) suggests that, if anything, rates plateaued by the late 2010s.

Practice changes tend to lag notoriously behind guideline publication, and it is difficult to attribute causality to guideline publication. Regardless of the explanation, Ontario's progress has been rapid and commendable, lagging only a couple years behind standard-setting Sweden, which already achieved 80% uptake of AS or watchful waiting for low-risk disease by 2014.[3] Ontario's success presumably reflects early leadership from the University of Toronto on this front;[4] similarly in the U.S., the highest rates of AS in the SEER registry are found in the San Francisco Bay Area,[5] likely reflecting early adoption and promotion from UCSF.[6]

Comparing trends in Ontario to the rest of Canada would be interesting; in the U.S., barely 10% of low-risk prostate cancers were managed with AS throughout the 1990s and 2000s.[7] Since the 2010s, there has been more rapid progress, though as of 2022 the AS rate remained only 60%, with variation at the provider level ranging from 0–100%.[8] In the statewide Michigan Urological Surgical Improvement Collaborative (MUSIC), which has developed a series of explicit initiatives around AS, uptake reached nearly 75% by the late 2010s but appears to have plateaued since,[9] quite similar to the Ontario rates reported by Cheung et al.

In the face of upward grade migration in pathology reporting and growing use of imaging and liquid biomarkers to help guide biopsy decisions for patients with elevated PSA, a shrinking proportion of prostate cancers are GG1 or low-risk at diagnosis: fewer than 20% in the U.S. since the 2010s,[8] and only 6–8% in the U.K.,[10] where most patients without MRI-visible lesions do not even undergo biopsy. Thus in many settings, GG1 is gradually becoming an "incidentaloma,"[11] and much contemporary AS literature is therefore shifting to GG2 tumors.

Uptake of AS in Ontario for GG2 prostate cancer has been much lower and rising more slowly, again mirroring the experience in MUSIC[9] and elsewhere. Data from SEER through 2020 indicate similar trends for GG2 disease, although for "intermediate-risk" but GG1 cancers, AS rates are appropriately approaching nearly 60%.[12] Clearly, GG2 cancers can and must be more finely risk-stratified for AS vs. treatment decision-making, using both updated histopathology standards[13] and other emerging tools.

Rates of AS for GG2 in Cheung et al's analysis were even lower if MRI was not considered an acceptable surrogate for confirmatory biopsy, a replacement not endorsed by the CCO guidline,[1] nor validated by contemporary data,[14] but frequently used in practice.[15] The reality is that many patients embarking on AS do not receive any confirmatory test and are followed on a relatively inactive surveillance protocol.[16] While trials indicate that low-intensity surveillance is safe for many patients, there are meaningful proportions who progress to life-threatening disease,[17] and these must be identified via imaging, biopsy, and other tests on some interval.

Whether or not Ontario's success can be directly attributed to the CCO guideline, the guideline process is a critical means of forging consensus. Moreover, trends across the province should be a

model for other most other regions in which patients have access to screening. After all, it is only by continuing to drive down overdiagnosis and overtreatment that we can convince our colleagues in primary care to offer screening to more patients, and thereby to identify the high-grade cancers we really need to find within the window of opportunity for cure.

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