

# Low risk prostate cancer and an opportunity lost: more activity required in active surveillance

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Men who are being monitored may be more open to interventions for improving their general health and quality of life



**P**rostate cancer is the most frequently registered cancer in Australian men, with an estimated 17 729 new diagnoses in 2018.<sup>1</sup> For the 25% who are diagnosed with low risk disease, active surveillance (AS) is now the recommended management strategy, as their cancer may never progress.<sup>2</sup> Avoiding or at least postponing radical treatment reduces the quality of life risks associated with surgery or radiation therapy. However, there is no evidence-based consensus about the optimal approach to surveillance, and practices differ between countries with regard to the type, frequency, and sequence of follow-up.<sup>3</sup> AS differs from “watchful waiting” in that it has a curative intent; watchful waiting involves less intense routine monitoring, intervening only when symptoms appear. One standard approach to AS recommends prostate-specific antigen (PSA) assessment every 3–6 months, a digital rectal examination at least once a year, and at

least one biopsy within 12 months of diagnosis, followed by serial biopsy every 2–5 years.

In this issue of the *MJA*, Evans<sup>4</sup> and colleagues report that Victorian men on AS are not being followed according to recommended AS protocols. Specifically, only 1 in 4 men on AS (diagnosis: August 2008 – December 2014) enrolled in the Prostate Cancer Outcomes Registry–Victoria (PCOR-Vic) had had at least three PSA tests and one biopsy during the 2 years following diagnosis; 46% had no follow-up biopsy, and 63% had had fewer than three PSA tests. Older men, those diagnosed following transurethral resection of the prostate for managing benign prostatic hyperplasia or by transperineal biopsy, and those managed in the public hospital system were less likely to adhere to the recommended protocol. The reasons for non-adherence are not clear, nor whether it was driven by patient preference for less invasive follow-up or by the clinicians’ attitudes or ability to manage patients according to the protocol. The authors suggest that biopsy and PSA test data may be missing from the medical records examined, and that in some cases multi-parametric



magnetic resonance imaging (mpMRI) may have been preferred as a less invasive alternative to biopsy; further, men who had adhered to AS but then transferred to active treatment were excluded from the study, leading to underestimation of adherence. Only limited information on the patients’ education, income, and other social determinants was available; further, the authors acknowledge that, as the PCOR-Vic does not record comorbidities, they could not be considered in their analysis. Information on the variability in adherence between clinicians would also be enlightening.

AS is associated with a unique suite of effects on quality of life. Repeat biopsy entails a risk of infection and sepsis. Out-of-pocket costs are associated with routine specialist appointments and additional scans; in particular, the costs of mpMRI are not currently reimbursed by Medicare. Men who remain on AS for longer periods report greater fear of cancer progression, distress, hyperarousal and cognitive avoidance than those treated actively.<sup>5</sup>

In the absence of evidence that specific AS protocols are more or less effective than others, it is unclear whether any place men at greater risk of life-threatening cancer progression. We do not know the impact of AS on clinical outcomes or whether the currently recommended surveillance protocol is appropriate for all men. Research will hopefully identify better strategies for individualising risk management, and for less invasive and cost-effective approaches to monitoring.

An additional question is whether there are opportunities for changing the trajectory of cancer progression risk or, should progression occur, for ensuring that the men affected have adopted strategies that optimise cardiovascular and metabolic health. AS opens a window of opportunity: men may be particularly receptive at this time for interventions that treat or prevent a range of chronic physical and psychological diseases.<sup>6,7</sup> Examples include ceasing smoking and limiting alcohol consumption, reducing the intake of

sugar and processed foods and increasing that of fresh vegetables and salads, and taking up regular aerobic and resistance activity.<sup>8,9</sup> Together, these may reduce fat mass and, more importantly, limit further weight gain. Additionally, 1 in 4 men over 40 have moderate to severe obstructive sleep apnoea that, like depression in men, often goes undiagnosed.<sup>10</sup>

Adherence to AS may be best achieved by a shared care approach, with urologists and general practitioners each having an obligation to ensure that a comprehensive health management plan is in place.<sup>11</sup> The patient must receive sufficient education and support, tailored to their level of health literacy, to guarantee that they are an engaged and active participant in the process of care.

Men on AS are unlikely to die of prostate cancer, and confining AS to prostate monitoring is an opportunity lost. A holistic approach to assessing and treating comorbidities, reducing risk, enhancing quality of life, and potentially improving the life expectancy of the patient is warranted.

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- 1 Australian Institute of Health and Welfare. Cancer in Australia 2017 (AIHW Cat. No. CAN 100). Canberra: AIHW, 2017.
- 2 Chen RC, Rumble RB, Loblaw DA, et al. Active surveillance for the management of localized prostate cancer (Cancer Care Ontario Guideline): American Society of Clinical Oncology clinical practice guideline endorsement. *J Clin Oncol* 2016; 34: 2182-2190.
- 3 Ganz PA, Barry JM, Burke W, et al. National Institutes of Health State-of-the-Science Conference: role of active surveillance in the management of men with localized prostate cancer. *Ann Intern Med* 2012; 156: 591-595.
- 4 Evans MA, Millar JL, Earnest A, et al. Active surveillance of men with low risk prostate cancer: evidence from the Prostate Cancer Outcomes Registry—Victoria. *Med J Aust* 2018; 208: 439-443.
- 5 Egger SJ, Calopedos RJ, O'Connell DL, et al. Long-term psychological and quality-of-life effects of active surveillance and watchful waiting after diagnosis of low-risk localised prostate cancer. *Eur Urol* 2017; doi: 10.1016/j.eururo.2017.08.013. [Epub ahead of print]
- 6 Sutton E, Hackshaw-McGeagh LE, Anning J, et al. The provision of dietary and physical activity advice for men diagnosed with prostate cancer: a qualitative study of the experiences and views of health care professionals, patients and partners. *Cancer Causes Control* 2017; 28: 319-329.
- 7 Daubenmier JJ, Weidner G, Marlin R, et al. Lifestyle and health-related quality of life of men with prostate cancer managed with active surveillance. *Urology* 2006; 67: 125-130.
- 8 Farris MS, Courmeya KS, Kopciuk KA, et al. Post-diagnosis alcohol intake and prostate cancer survival: a population-based cohort study. *Int J Cancer* 2018; doi: 10.1002/ijc.31307. [Epub ahead of print]
- 9 Peisch SF, Van Blarigan EL, Chan JM, et al. Prostate cancer progression and mortality: a review of diet and lifestyle factors. *World J Urol* 2017; 35: 867-874.
- 10 Adams R, Appleton S, Taylor A, et al. Are the ICSD-3 criteria for sleep apnoea syndrome too inclusive? *Lancet Respir Med* 2016; 4: e19-e20.
- 11 Emery JD, Shaw K, Williams B, et al. The role of primary care in early detection and follow-up of cancer. *Nat Rev Clin Oncol* 2014; 11: 38-48. ■