Active surveillance guidance for New Zealand men with low-risk prostate cancer

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Prostate cancer is the most common non-cutaneous malignancy affecting New Zealand men and accounts for 27% of all annual registrations of cancer. This malignancy is a significant burden to men’s health and kills around 600 men every year in New Zealand.¹

The Ministry of Health’s Awareness and Quality Improvement Programme for prostate cancer aims to improve prostate cancer outcomes for men and has a strong equity focus.² The newly published Ministry of Health guidance on using active surveillance to manage men with low-risk prostate cancer is the first of a suite of documents that are being developed to ensure that men have better and more equitable access to information about prostate cancer.³ The guidance offers support to primary care practitioners and specialists who manage men with low-risk prostate cancer and provides a mechanism for ensuring that men not only receive consistent advice and care, but also have equitable outcomes across the entire care pathway. The Urological Society of Australia and the New Zealand branch of the Royal Australian and New Zealand College of Radiologists have endorsed this guidance.

Curative treatment of prostate cancer, like other malignancies, carries a risk of adverse events. Active surveillance aims to avoid or delay the need for curative treatment in low-grade, low-volume prostate cancers, thereby reducing the potential for treatment-related harms.⁴ Active surveillance involves actively monitoring the prostate cancer with regular prostate-specific antigen (PSA) tests, digital rectal examinations (DREs), prostate biopsies and magnetic resonance imaging of the prostate (MRIs). This allows the urologist to determine whether the cancer is progressing either in aggressiveness or extent. If progression is confirmed, the patient then has the option to undergo curative treatment.⁵,⁶

Effective active surveillance is dependant on accurate risk stratification. For many years, Gleason scoring of prostate cancer has been used to facilitate the stratification of outcomes. While this scoring system is still used, grading of prostate cancer has evolved since the initial reports of Gleason, and in 2005 and 2014 two consensus conferences convened by the International Society of Urological Pathology (ISUP) led to the establishment of a new grading system for these tumours.⁷,⁸ In this system tumours are graded from ISUP grade 1 through to ISUP grade 5. Cancers consisting of well-formed acini, which were previously considered a component of Gleason score 3+3=6, are now assigned to the lowest ISUP grade. There is good evidence to suggest that tumours showing this morphology progress either slowly, or not at all, and even cases with evidence of localised spread appear to have a good prognosis.⁹-¹¹ It is for this reason that organ-confined ISUP grade 1 tumours (Gleason 3+3=6) are considered suitable for active surveillance. This does not apply to cancers of higher grade which have more aggressive growth characteristics and for which early treatment is indicated.

These developments mean that at diagnosis we can be more confident of assigning to each patient an accurate risk of disease progression. Men with a low-risk profile may be suitable for either active surveillance or curative treatment, using either radical prostatectomy or radiation therapy by either brachytherapy or external beam. Some men who are suitable for active surveillance will instead chose curative treatment because of their own heightened anxiety of having untreated cancer and the required...
intensive monitoring that active surveillance requires.12,13 Those at intermediate or high-risk of disease progression are not suitable for active surveillance and need to be considered for curative treatment.

Entering an active surveillance programme means that men potentially avoid the adverse effects of surgery or radiation therapy.14 Urologists are well aware that for men on active surveillance programs there is a greater likelihood that they will die from causes other than prostate cancer. The risk is that men may develop more aggressive cancer and ultimately require not just radical intervention, but also adjuvant treatment. Therefore, men on active surveillance require regular monitoring and while the triggers for intervention vary between protocols, most rely on the findings of re-biopsy.

If the original entry criteria for including men in active surveillance are breached (Gleason score/ISUP grade and tumour volume), then men are likely to be directed to curative treatment. In addition, for many men the anxiety of an increasing PSA (even one that does not meet an intervention criterion of doubling time <3 years) will cause them to leave an active surveillance program and opt for curative treatment.

The care of men on active surveillance should be led by a urologist who is also responsible for developing the initial active surveillance care plan. Other health professionals, such as general practitioners or nurse practitioners in primary health, or nurses working in advanced practice roles within District Health Boards (DHBs), can share care and provide the ongoing monitoring and support these men require. The responsibilities of the urologist and the other health professional should be clearly documented in the man’s active surveillance care plan. Where an aspect of care has been devolved to another health professional, regular contact with the lead urologist is required. Urologists are responsible for reviewing men’s active surveillance care plans and this should be done at least every 12 months.

DHBs are expected to include the active surveillance guidance within their care pathways as part of their 2015/16 Annual Plans. When implementing the guidance, we encourage each DHB urology and radiology department to discuss how the guidance should be integrated into their clinical pathways and to discuss what resource implications the guidance will have for magnetic resonance imaging (MRI). Nationally, MRI is a constrained resource for both diagnostic and surveillance imaging. Therefore, it is important to ensure that each DHB can meet the diagnostic and active surveillance demands for prostate-related MRIs, within clinically appropriate timeframes, before its pathways are confirmed.

DHBs and primary health organisations should also be conscious of the disparities in prostate cancer outcomes for different populations (such as Māori men and men who live in rural communities) before implementing this guidance. For example, Māori men are less likely to be diagnosed with prostate cancer than non-Māori men, but are 36% more likely to die from the disease.15 The reasons behind these disparities are not well understood. However they appear, in part, to be related to differences in men’s access to appropriate information, and to diagnostic and treatment services.

It is expected that the increasing utilisation of active surveillance in New Zealand will lead to a reduction in the number of men undergoing unnecessary curative treatment for indolent disease. Many urologists remain cautious about this management option because of the dependence on histologic grading and the possibility of false negative results on prostate re-biopsy. This means that a man may develop more aggressive prostate cancer that remains undetected. The development of prostate cancer-specific biomarkers, genetic profiling and improvements in prostate cancer imaging are enhancements that will lessen this risk and improve our ability to select men who are genuinely low-risk. Improved education of health practitioners is likely to lead to an increased utilisation of active surveillance and a reduction in the morbidity of prostate cancer treatment. With greater accuracy at diagnosis the harms of over treatment will be minimised and perhaps we will in the future be at a point of giving further consideration to a targeted screening programme.
EDITORIAL

Competing interests: Nil

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