

Re: Active Surveillance Compared With Initial Treatment for Men With Low-Risk Prostate Cancer: A Decision Analysis

Hayes JH, Ollendorf DA, Pearson SD, et al

JAMA 2010;304:2373–80

Expert's summary:

This decision analysis used simulation to examine the impact of active surveillance compared with other initial treatment on the length of quality of life among men 65 yr of age with low-risk clinically localized prostate cancer. In the base case, active treatment is assumed to be associated with a lower prostate cancer mortality (relative risk: 0.83) compared with active surveillance. Under this scenario, active treatment is associated with 11.07 quality-adjusted life-years (QALYs), followed by brachytherapy (10.57 QALYs), intensity-modulated radiotherapy (10.51 QALYs), and radical prostatectomy (10.23 QALYs). The optimal strategy was highly dependent on individual preferences for living under active surveillance and for having been treated. The authors concluded that under a wide range of assumptions, active surveillance for a 65-yr-old man is a reasonable approach to low-risk prostate cancer based on QALYs compared with other initial treatment.

Expert's comments:

Given that overtreatment is common among men with low-risk prostate cancer [1], the paper by Hayes et al addresses an important clinical and public health issue. Based on extensive data from the literature and a wide range of sensitivity analyses, the authors demonstrate that among men age 65 yr with a low-risk prostate cancer at diagnosis, active surveillance provides the highest number of QALYs: an additional 6.0 mo of QALYs compared with brachytherapy, the most effective initial treatment. Furthermore, the sensitivity analyses revealed that active surveillance provides the highest QALYs among all treatments unless the reduction in prostate cancer-specific mortality following active treatment exceeds 40%. Given that the risk of dying of prostate cancer among men with low-risk prostate cancer is low in the prostate-specific antigen

era (2–4% at 10 yr) [2,3], the room for improvement is fairly limited. For example, a 40% relative reduction in men with a 3% risk of dying of prostate cancer would translate to an absolute reduction of 1.2%. Despite the favorable outcomes associated with active surveillance, this treatment option is used infrequently in the United States [4]. This may be partially due to the misconception about the nature of prostate cancer, treatment effect, or active surveillance not being offered as a treatment option [5]. All patients must be well informed about the potential risks and benefits of all treatment options, including active surveillance.

Conflicts of interest: The author has nothing to disclose.

References

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Re: Comparative Risk-Adjusted Mortality Outcomes After Primary Surgery, Radiotherapy, or Androgen-Deprivation Therapy for Localized Prostate Cancer

Cooperberg MR, Vickers AJ, Broering JM, Carroll PR

Cancer 2010;116:5226–34

Experts' summary:

The objective of the study was to assess the comparative effectiveness of three different primary treatments for localized prostate cancer (PCa), namely, retropubic radical prostatectomy (RRP), external-beam radiation therapy (EBRT), and androgen deprivation (AD). The authors used data from the Cancer of the Prostate Strategic Urologic Research En-

deavour (CaPSURE) cancer registry, a prospectively collected US cancer registry accruing men from 40 community-based urologic practices throughout the United States. All men included in the study ($n = 7538$) were considered to have localized PCa and underwent treatment between 1987 and 2007. The two primary outcomes of the study were cancer-specific mortality (CSM) and all-cause mortality (ACM) at 10 yr following therapy. Two different PCa risk instruments (Kattan, CAPRA) were used to adjust for difference in disease burden, and comorbidity was adjusted for using the Charlson score.

In summary, the authors report that although overall 10-yr CSM was low at 3% compared to ACM at 17.2%, CSM for patients receiving EBRT was more than twice as high as