

PROSTATE CANCER

Optimizing finasteride chemoprevention

The 5 α reductase inhibitor finasteride is an effective chemopreventative agent against prostate cancer. However, the use of finasteride in the general male population remains low, in part due to the cost of the drug, its associated adverse effects, and uncertainty surrounding which men will derive the most benefit from this agent. Writing in the *Journal of Clinical Oncology*, Andrew Vickers and colleagues from Memorial Sloan-Kettering Cancer Center have addressed the optimum use of finasteride among men at risk of prostate cancer. “It isn’t unreasonable for a man to ask ‘Why should I take a pill today—and risk side effects—to avoid something far in the future that I might not even get?’” says Vickers. “We wondered whether we could use PSA to determine which men should be treated with finasteride.”

Using data from the Prostate Cancer Prevention Trial, the authors investigated whether serum PSA level could be used to identify a high-risk subgroup of men who would benefit most from preventative finasteride treatment. They used decision-analysis methods to compare different approaches to chemoprevention using this drug.

“PSA was a very strong predictor of subsequent prostate cancer,” says Vickers, “such that it can be used to risk-stratify patients.” In fact, the addition of other prognostic information—family history, age or race—offered no noticeable prognostic improvement over PSA alone.

The optimum strategy for using finasteride differed according to the goal of chemoprevention, and the accepted number needed to treat to prevent one case of cancer. If the aim of using finasteride is to prevent all prostate cancers, then the greatest benefit seems to be derived from treating all (or almost all) men at risk. If the aim is to prevent only those prostate cancers that would be detected in the course of routine clinical practice, then the optimum strategy seems to be to recommend finasteride to the 20–40% of men with the highest serum PSA levels.

Thus, whether finasteride should be applied to all men, or just to a high-risk subgroup, depends on whether we deem it important to prevent all prostate cancers, or just those detected during standard clinical care. The authors favor the latter scenario, in which the majority of cancers that are not detected by screening are



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considered unlikely to become clinically relevant. They note, however, that this decision is up to the individual clinician; some might instead wish to prevent all prostate cancers and, therefore, recommend finasteride to all men.

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Original article Vickers, A. J. *et al.* Finasteride to prevent prostate cancer: should all men or only a high-risk subgroup be treated? *J. Clin. Oncol.* **28**, 1112–1116 (2010)