

Correction

For an article (1) in the August 2006 issue, the authors recently discovered an error in the methodology of the cost-effectiveness model that was described. The authors have revised parts of the Abstract and the Results section. The authors also corrected the data in Table 3 per the changes induced in the model by the corrected progression rate for Gleason sum 2–7 cancers. This table has implications for other chemoprevention trials such as SELECT and REDUCE and for future chemoprevention trials since it provides a framework for estimating cost-effectiveness in the settings of other potential agents and higher-risk populations. The main conclusions of the article, however, remain unchanged.

The text corrections appear in bold in the following.

Abstract

Results: Chemoprevention with finasteride resulted in a gain of **8.7** life years per 1000 men at a cost of **\$1.107 million** per life year saved (LYS). However, if finasteride is assumed to not increase the incidence of high-grade tumors, it renders a gain of **16.6** life years per 1000 men at a cost of **\$578,400 per LYS**; finasteride must cost **\$160 per year** to reach \$100,000 per LYS. When applied to a population at higher risk (lifetime prevalence $\geq 40\%$) for developing prostate cancer, the cost of finasteride must be reduced from its current cost (\$62/month) to **<\$15/month** for the cost-effectiveness to fall below \$50,000 per LYS.

Results

Reduced Overall, Increased High-Grade Prostate Cancer with Finasteride. Our first analysis assumed the grade distribution of the PCPT-reduced overall prostate cancer and increased high-grade prostate cancer in the finasteride versus the placebo arm. Under this assumption, finasteride chemoprevention resulted in a gain of **8.7 life years** per 1000 men. At an increased lifetime cost of **\$9,631** per person, this render sad is counted incremental costeffectiveness ratio of **\$1,107,000** per life year saved (LYS) for finasteride versus no treatment.

Reduced Overall, No Increased High-Grade Prostate Cancer with Finasteride. Based on evidence that the higher distribution of Gleason score ≥ 7 in the finasteride versus the placebo arm of the PCPT may have been more apparent than real, our second analysis assumed that finasteride reduces overall prostate cancer and does not increase the incidence of high-grade disease. Under this assumption, finasteride chemoprevention resulted in a gain of **16.6 life years** per 1000 men. At an increased lifetime cost of **\$9,600** per person, this renders a discounted incremental costeffectiveness ratio of **\$578,400 per LYS** for finasteride versus no treatment.

Sensitivity Analysis. A two-way sensitivity analysis relaxing the assumptions regarding the disease prevalence and the relative risk reduction in the incidence of prostate cancer is shown in Table 3. Assuming a 25% relative risk reduction afforded by treatment, if the cost of finasteride was reduced from its current cost of \$62 per month to \$15 per month, the cost per LYS would fall to **\$65,000** for a population at high risk (prevalence $\geq 30\%$ for men age 50 and older) of developing prostate cancer. On the other hand, at a cost of \$62/month, a relative risk reduction of 50% targeted at a population with a prostate cancer prevalence of **>40%** after age 50 would be required to obtain a cost of \$100,000 per LYS. Graphic

Table 3. Three-way sensitivity analysis assuming similar grade distribution between finasteride and placebo arms

Relative risk reduction (%)	Cost of finasteride (U.S. \$/mo)	Lifetime prevalence (men diagnosed after age of 50 yr)			
		151.0% (\$)	30.0% (\$)	40.0% (\$)	50.0% (\$)
25	15	114,516	65,071	48,749	35,941
	30	261,267	143,820	104,844	73,924
	62	578,411	314,006	226,072	156,010
50	15	51,433	26,806	18,733	12,481
	30	124,344	65,709	46,307	30,999
	62	281,911	149,783	105,897	71,019
80	15	27,696	12,304	7,260	3,357
	30	72,908	36,253	24,120	14,544
	62	170,617	88,008	60,555	38,721

NOTE: Results are cost per life year saved.

representations of two-way sensitivity analyses are shown in Figs. 2 and 3. Figure 2 shows that disease prevalence and the prostate cancer risk reduction significantly affect the costeffectiveness of finasteride. At a cost of \$62 per month, the cost per LYS is $> \$100,000$ unless the prevalence is $> 40\%$ and the risk reduction is $> 50\%$. In Figure 3, cost-effectiveness is based on varying drug costs and disease prevalences. At low drug costs, chemoprevention results in less than \$100,000 per LYS even at low disease prevalence. An additional analysis was performed to bias towards an increased cost of prostate cancer treatment. We assumed a quarter of men with prostate cancer diagnosis received salvage therapy following recurrence and one-half of men with metastatic disease received chemotherapy. This resulted in a decrease in the cost-effectiveness ratio by 3.9%.

Reference

1. Svatek RS, et al. The cost of prostate cancer chemoprevention: a decision analysis model. *Cancer Epidemiol Biomarkers Prev* 2006;15:1485–9.