

## Study Weighs Against Tests for Testicular Cancer

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### MedPage Today Action Points

- Point out that this review could not identify any studies that directly established either the benefits or harms of testicular cancer screening.

### Review

A review of studies emphasizing the pros and cons of testicular cancer screening helped reaffirm a 2004 U.S. Preventive Services Task Force recommendation against early screening of asymptomatic patients -- while yielding no new information, according to Kenneth Lin, MD, of the Agency for Healthcare Research and Quality in Rockville, Md., and Ruta Sharangpani, MD, of the Michigan Department of Community Health.

None of the papers looked at in the review met the inclusion criteria, mostly due to the studies' use of symptomatic populations.

Their review, published in the Sept. 21 issue of *Annals of Internal Medicine*, supported the previous guidance against early screening and accompanied a draft of new guidelines, which is available for public comment on the task force's website from Sept. 21 to Oct. 19, after which a final guidance will be released.

The current draft cited low incidence rates, favorable treatment outcomes, potential harm from false-positives and related tests, and modest overall lack of benefit as reasons to maintain the task force's stance. The recommendation lists the practice as "grade D" -- which suggests the service be discouraged.

The survey included an analysis of 113 journal articles published from Jan. 1, 2001, to Nov. 11, 2009, which found no new evidence working for or against the task force's recommendation for asymptomatic men.

The review narrowed criteria for relevant articles, removing pieces that were not related to screening or condition, that included a high-risk population, and that required exclusion due to study design.

Full article reviews were done for three studies, but they, too, were excluded from the overview due to not being about screening (two) or not including a reported outcome (one).

Of the full article reviews, researchers did report data from symptomatic populations that helped reaffirm the existing guidance on screening.

One study provided a prospective measure of 72 men with testicular microlithiasis with a follow-up ultrasonography of 104 men who presented symptoms of the condition, with an average follow-up time of 45 months. None of those screened were found to have testicular tumors.

The small sample size provided no help in drawing any short-term conclusions on screening asymptomatic patients, the researchers said.

A second study compared methylation patterns in patients with and without germ-cell tumors' X-inactive specific transcript (XIST) gene -- germ-cell tumors in men sometimes have abnormally unmethylated XIST genes.

Included were plasma samples from 25 patients with testicular cancer, 24 patients with another type of urogenital cancer, and six healthy patients. Of those with testicular cancer, 16 had unmethylated XIST genes versus zero in the two other groups.

Results were confounded by small sample size and lack of clinical outcomes. Researchers added that using XIST as a predictor would require additional studies noting the presence of methylated and unmethylated forms of the gene in an asymptomatic population compared longitudinally against the risk of developing testicular cancer.

The third full-review included a study of 1,320 patients presenting symptoms -- including swelling, pain, infertility, varicocele, and erectile dysfunction -- and underwent an ultrasonography. Of those tested, 27 had tumors, only 17 of which were palpable.

Those with tumors underwent either orchiectomy (12) or testis-sparing surgery (15), with one patient in the conservative surgery group developing scrotal hematoma.

No patient showed signs of recurrent cancer in a follow-up over an average of nine months.

None of the selected studies showed benefits for testicular cancer screening, nor did they show new harm in screening asymptomatic patients.

Researchers noted that in the third study, ultrasonography revealed only 27 tumors in 1,320 patients who showed symptoms. They reasoned that this number would be far fewer in a population of asymptomatic patients.

The study concluded that although no new recommendations for or against screening for testicular cancer could be established from the review, healthcare professionals should keep testicular cancer as a differential diagnosis in patients who present testicular or scrotal symptoms.

Researchers reported no conflicts of interest.

**Primary source:** Annals of Internal Medicine

**Source reference:**

Lin K "Screening for testicular cancer: An evidence review for the U.S. Preventive Services Task Force" *Ann Intern Med* 2010; 153: 396-399.

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