

# Multigene testing for all breast cancer patients cost-effective

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(HealthDay)—Unselected, multigene testing for all patients with breast

cancer would be cost-effective in the United Kingdom and the United States, according to a study published online Oct. 3 in *JAMA Oncology*.

Li Sun, from the London School of Hygiene & Tropical Medicine, and colleagues examined lifetime costs and effects for high-risk *BRCA1/BRCA2/PALB2* (multigene) testing of all unselected patients with breast cancer compared with *BRCA1/BRCA2* testing based on family history or clinical criteria in the United Kingdom and the United States.

The researchers found that compared with current *BRCA* testing, multigene testing for all patients detected with [breast cancer](#) annually would cost £10,464/quality-adjusted life-year (QALY) or £7,216/QALY from a payer and societal perspective, respectively, in the United Kingdom and \$65,661/QALY or \$61,618/QALY, respectively, in the United States; these costs are below cost-effectiveness thresholds. Unselected multigene testing remained cost-effective for 98 to 99 percent of U.K. and 64 to 68 percent of U.S. health system simulations in a probabilistic sensitivity analysis. In the United Kingdom and the United States, one year of unselected multigene testing could prevent 2,101 and 9,733 cases of breast and ovarian cancer, respectively, and 633 and 2,406 deaths, respectively.

"Our analysis suggests that an unselected testing strategy is extremely cost-effective for U.K. and U.S. health systems and provides a basis for change in current guidelines and policy to implement this strategy," the authors write.

One author disclosed financial ties to the pharmaceutical industry.

**More information:** [Abstract/Full Text](#)

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