How Well Can Blood Tests Detect Multiple Cancers Early, When They're Easier to Treat?

Fred Hutch leads the national Vanguard Study to understand the effectiveness and use of multi-cancer detection blood tests.

July 31, 2025

Fred Hutch Cancer Center is leading the newly launched Vanguard Study, a national study of a new type of blood test that screens for several different cancers called multi-cancer detection (MCD) tests. Researchers will evaluate whether these blood tests will help people ages 45 to 75 find cancer early when it may be easier to treat.

This is the first study of the Cancer Screening Research Network (CSRN), a nationwide network that will run trials aimed at improving cancer screening that is funded by the National Cancer Institute (NCI), part of the National Institutes of Health. Fred Hutch serves as the Coordinating and Communications Center as well as the Statistics and Data Management Center.

Multi-cancer detection tests use blood samples to detect biological substances released in the bloodstream by cancer cells or in human DNA. Each MCD test screens for several kinds of cancer, and the MCD tests in the Vanguard study will screen for the following cancers: bladder, breast, colorectal, esophageal, stomach, liver, lung, ovarian, pancreatic and prostate.

"There is excitement around these new screening tools with their potential to diagnose cancer earlier, when we expect treatment to be more effective and tolerable," said Ruth Etzioni, PhD, biostatistician at Fred Hutch and one of the principal investigators of the CSRN. "The Vanguard Study and Cancer Screening Research Network will be able to help us understand how these tools are best used."

The Fred Hutch team has expertise leading large-scale clinical trial networks and complex studies similar to CSRN, including the Women's Health Initiative, HIV Vaccine Trials Network, COVID-19 Prevention Trials Network as well as the Statistical and Data Management Center for SWOG, a national oncology group. In addition to their expertise leading large trials, researchers at Fred Hutch are at the forefront of cancer detection and prevention research having led the NCI-sponsored Early Detection Research Network for 25 years.

“Fred Hutch is a leader in team science,” said Garnet Anderson, PhD, Director of Public Health Sciences Division at Fred Hutch and one of the principal investigators of the CSRN. “We bring together top scientists and diverse perspectives to answer important public health questions, in this case – do multi-cancer detection tests work? And if so, what are the clinical pathways needed to make an impact on cancer?”

Current screening tests exist for breast, cervical, colorectal, prostate and lung cancers, yet most cancers don’t have any screening methods. According to the American Cancer Society, nearly half of all cancers diagnosed annually are cancers with no recommended screening tests. These cancers are often found at later stages when they can be harder to treat.

The Vanguard study will recruit adults ages 45 to 75 with no cancer diagnosis in the past five years. Participants will give two blood samples, one at entry and another one year later, and complete regular cancer screening as recommended by clinicians. At entry, they will be randomized into one of the three arms of the study: a control group, a group that receives the Avantect MCD Test by ClearNote Health, or a group that receives the Shield MCD Test by Guardant Health.

“We need to rigorously evaluate multi-cancer detection tests to understand if they’re effective and accurate cancer screening tools for everyone,” said Scott Ramsey, MD, PhD, principal investigator of the CSRN and cancer researcher at Fred Hutch Cancer Center.

The Vanguard Study is a pivotal first step in evaluating the feasibility of conducting large-scale randomized clinical trials to assess the effectiveness of MCD tests and other emerging cancer screening technologies. Its findings will help shape the rigorous design and implementation of future studies aimed at advancing early cancer detection, including a large national trial to determine if MCD tests decrease cancer burden and mortality.

Individuals interested in the study can visit the Vanguard Study website to learn more about the study, what local sites near them are recruiting, and their eligibility to participate.

This press release was originally published July 15, 2025, by Fred Hutch News Service. It is republished with permission.

© 2026 Smart + Strong All Rights Reserved.

http://beta.docker.hepmag.com/article/can-blood-tests-detect-multiple-cancers-early-easier-treat