

Novel Cancer Screening Test for Veterans Now Being Offered at Dana-Farber Cancer Institute

The newly opened Sentinel clinical trial will provide veterans with a simple blood test that can screen for up to 50 different cancer types simultaneously.

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During their time of service, members of the U.S. Armed Forces face considerable risks while fulfilling their mission and protecting the country. However, a less visible risk to the wellbeing of U.S. military members and veterans is on the rise. According to the Department of Veterans Affairs, approximately 56,000 veterans will be diagnosed with cancer this year and many of those will develop cancers for which there are no effective screening modalities leading to malignancies presenting in more advanced stages.

Dana-Farber Cancer Institute is now offering a novel cancer screening tool for U.S. veterans to evaluate whether cancer can be detected in earlier and more treatable stages among this population. The newly opened Sentinel clinical trial will provide veterans with a simple blood test, known as a multi-cancer early detection (MCED) test which can screen for up to 50 different cancer types simultaneously.

Recent data from the Department of Defense suggests that the risks of cancer are at least 20 percent higher among military personnel compared to the general population. This elevated cancer risk is attributed in part to the multitude of carcinogenic exposures encountered during their years of service such as high doses of asbestos, toxic burn pit emissions, and perfluorochemicals, coupled with high levels of psychosocial stress.

“There’s accumulating evidence suggesting that veterans are exposed to carcinogens during military service and have a diverse array of cancers at younger ages,” said [Elizabeth O’Donnell, MD](#), Director of the Multi-Cancer Early Detection Program at the Dana-Farber’s Centers for Early Detection and Interception. “Unfortunately, there are no current screening tests for many of the cancers that service members are at increased risk of developing. Multi-cancer early detection tests may be valuable tool in finding cancer in its earliest and most treatable stages in this high-risk population and we are proud to offer these tests to through the new Sentinel study which is now open to veterans.”

The Sentinel study will provide MCED tests to 1,500 veterans over the age of 45 who served on active duty for eight or more years and received care at a Veterans Administration facility within the past five years. Participants will be screened at the Dana-Farber Cancer Institute or at Quest Diagnostics testing sites using a robust screening infrastructure the research team has previously developed and tested.

Individuals interested in participating in the Sentinel study can contact the study team at dfciprevention@mgb.org or [complete the link to determine eligibility](#).

“As a veteran, I know firsthand the risks we take during service, and the health issues that can surface years later,” said Chelsey Simoni, A.P.R.N., M.S.N., U.S. Army Veteran, and Co-Founder and Chief Health Officer for the HunterSeven Foundation. “Too many of our colleagues are being diagnosed when it’s already too late. This research strives to give veterans a fighting chance by detecting cancer earlier.”

MCED tests work by detecting “cancer signals” for numerous types of cancer from a single blood test, also known as a liquid biopsy. Currently intended to be complementary to regular, routine cancer screening methods, the MCED test provides the benefit of scanning for many different cancer types at once. When a cancer signal is present in an MCED test, the test identifies specific cancer types to direct a diagnostic work-up.

Any veteran participating in the Sentinel study who screens positive on the MCED test will have results returned by a Dana-Farber physician, who will oversee diagnostic work-up for the suspected cancer through Dana-Farber recently opened Centers for Early Detection and Interception. Veterans participating in the study who screen negative will be followed for up to one year after to track any additional cancers are diagnosed during follow-up medical record review.

“Cancer is an increasing risk to our men and women in uniform,” said [Catherine Marinac, PhD](#), a cancer researcher in Dana-Farber’s Division of Population Sciences and a co-principal investigator of the Sentinel study. “If MCED tests prove effective in detecting cancer among veterans, they can help save the lives of those who have served our nation. Furthermore, the data generated from the Sentinel study will also help to inform the best use of this new screening technology in other populations as well.”

The leaders of the Sentinel study will work with the Department of Defense to create a “synthetic” control group of individuals meeting key eligibility criteria in the screening arm, to which the screening group will be compared. The researchers will initiate a matching process to ensure that the control population mimics the characteristics of the group that is being screened with the MCED test.

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