



# REFLECTION: Real-World Evidence Study of Multi-Cancer Early Detection (MCED) Among Veterans in the Veterans Affairs Healthcare System (VA)

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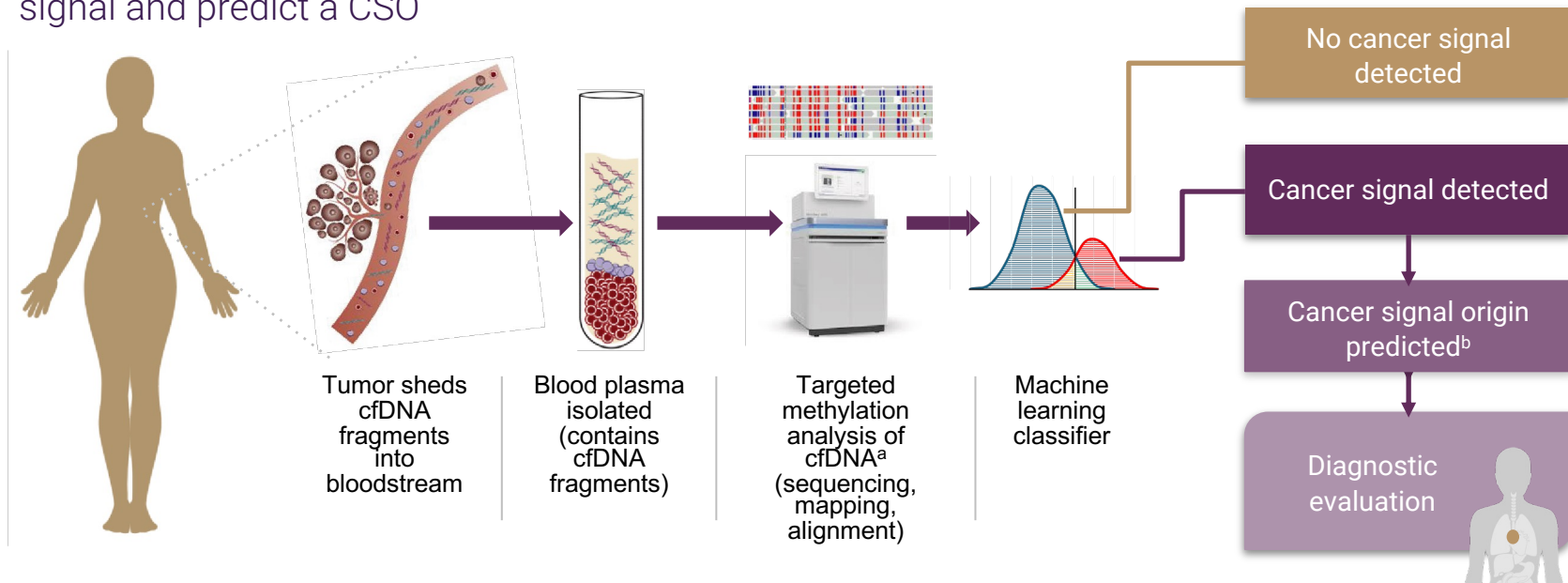
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# A Multi-Cancer Early Detection (MCED) Blood Test Can Detect a Cancer Signal and Predict a Cancer Signal Origin (CSO)

The Galleri<sup>®</sup> MCED test (GRAIL, Inc., Menlo Park, CA) uses targeted methylation sequencing of cell-free DNA in the bloodstream paired with machine learning algorithms to detect a cancer signal and predict a CSO



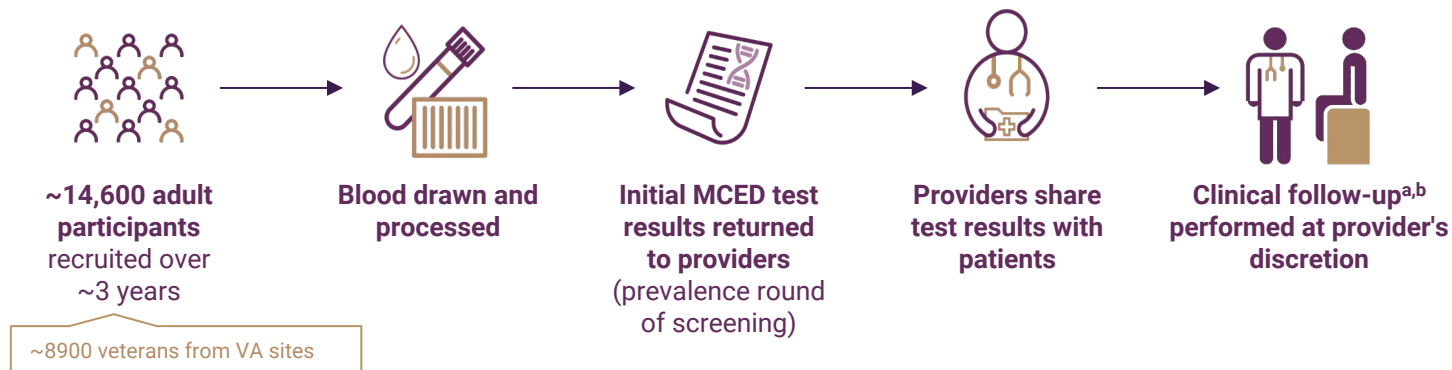
cfDNA, cell-free DNA. <sup>a</sup>Bisulfite treatment; targeted probes pull out fragments matching regions of interest. <sup>b</sup>For a detected signal, the MCED test predicts 1-2 CSOs that can be either an anatomic site (eg, colorectal) or a cellular lineage (eg, lymphoid). Adapted from Liu MC, et al. *Ann Oncol.* 2020;31:745-59.



# REFLECTION Study: Real-World Experience With the MCED Test

Multicenter, prospective, non-interventional, cohort study in clinical settings (NCT05205967)


The objective of the ongoing REFLECTION study is to understand the real-world experience of using the Galleri MCED test in clinical settings




## **Preliminary Analysis Objective: Evaluate cancer signal detection and cancer status in the VA cohort of veterans (≥22 y) with 1 year of follow-up after the MCED test result**

MCED, multi-cancer early detection; VA, Veterans Affairs Healthcare System. <sup>a</sup>Patients are actively followed through medical record data collection and self-reported questionnaires administered pre-test, post-test (for a subset), and 12 months post-consent. <sup>b</sup>Patients may be passively followed through linkages to cancer registries and other administrative health databases up to time of death, loss to follow-up, withdrawal of informed consent, or per institutional guidelines on duration of data collection, whichever occurs sooner.






# A Diverse Population of Veterans Was Enrolled

 3587 veterans have been enrolled in REFLECTION at 7 VA sites as of June 30, 2024

 3355 veterans with 1-year follow-up in the evaluable population\*

 **Cancer signal detection rate: 0.89%**  
**(95% CI: 0.63–1.27%)**

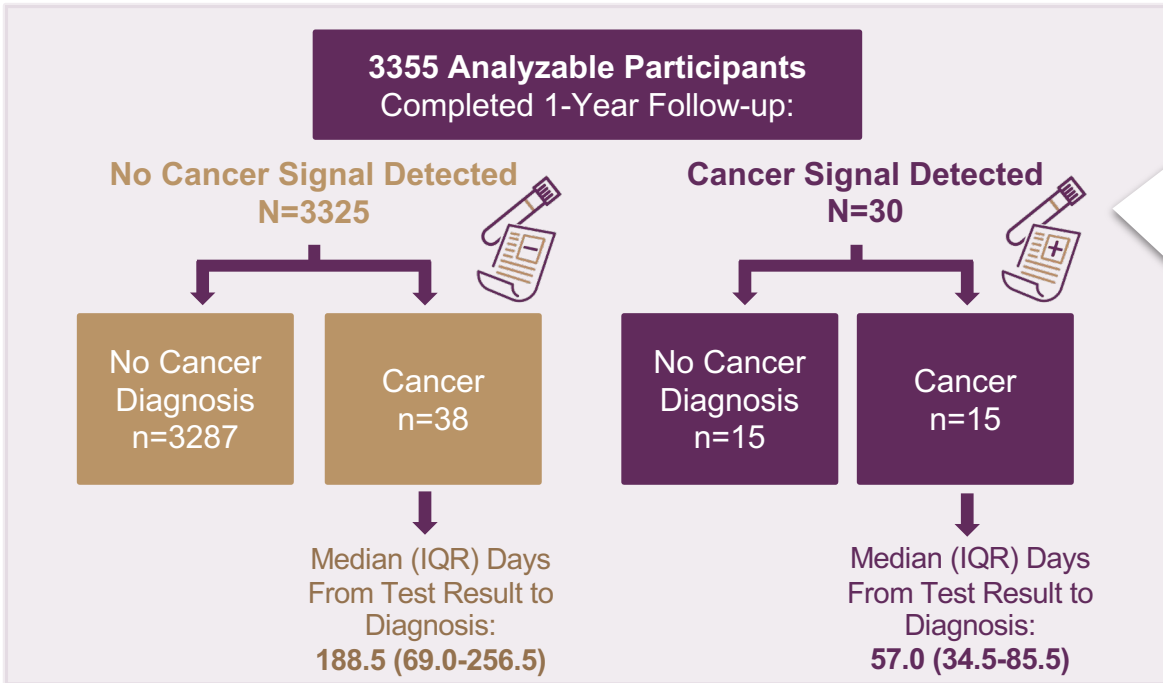
### REFLECTION Study: VA Cohort

-  61 y (median; interquartile range: 50-70 y); 38.4% ≥ 65 y
-  78.6% men
-  White (Non-Hispanic) 57.6%, Black/African American (Non-Hispanic) 17.9%, Hispanic/Latino 14.6%
-  57.2% had ever smoked, 15.8% current smokers
-  10.8% had a personal cancer history and 57.4% had a first-degree relative with a cancer history

\*Excludes participants with active cancer or cancer within the past 3 years.  
CI, confidence interval; VA, Veterans Affairs Healthcare System.



# The 1-Year PPV in the VA Cohort Is Comparable to PPVs From Other Clinical Studies of This MCED Test With Up to 1 Year of Follow-Up



PPV (95% CI)	Specificity (95% CI)
<b>50.0%</b> (33.2-66.9%)	<b>99.5%</b> (99.3-99.7%)
<b>43.1%</b> (31.2-55.9%)	<b>99.5%</b> (99.3-99.6%)
<b>61.6%</b> (54.9-67.8%)	<b>99.6%</b> (99.5-99.7%)
<b>44.4%</b> (28.6-79.9%)	<b>99.5%</b> (99.0-99.8%)

**REFLECTION  
VA COHORT**

**PATHFINDER<sup>1</sup>**

**PATHFINDER 2<sup>2</sup>**

**CCGA3<sup>3</sup>**

CCGA3, Circulating Cell-free Genome Atlas substudy 3; IQR, interquartile range; PPV, positive predictive value; VA, Veterans Affairs Healthcare System. <sup>1</sup>PATHFINDER study: Schrag et al. *The Lancet*. 402;1251-60 (Supplementary appendix; data for refined MCED test version). <sup>2</sup>PATHFINDER 2 study: Nabavizadeh et al. Presentation at European society for Medical Oncology Congress October 17-21, 2025, Berlin, Germany. <sup>3</sup>CCGA3 study: Klein et al. *Ann Oncol*. 2021;32:1167-77 (PPV was extrapolated [adjusted to Surveillance, Epidemiology, and End Results Program, SEER, cancer incidence and stage distribution in the 50-79 years age group]).

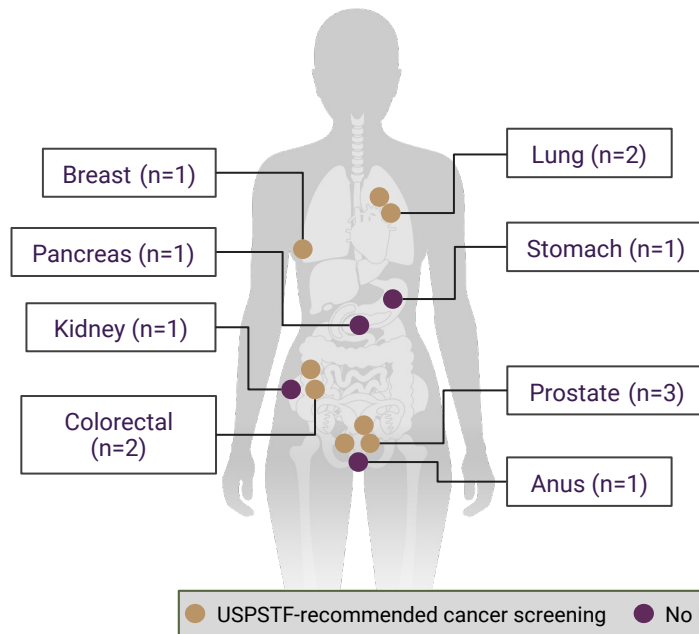
# A Variety of Cancers Were Diagnosed Within 1 Year of a Positive MCED Test Result

**93.3%**  
CSO Accuracy  
(n=14/15)

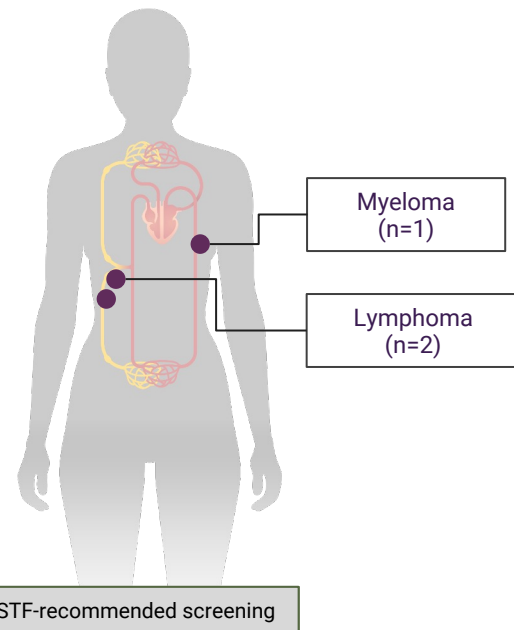
**57.1%**  
of cases detected  
at stages I-III  
(n=8/14)\*

\*14/15 (93.3%) participants had new, non-recurrent cancer (1 unknown recurrence status)

**12 Participants  
had Solid Tumors**



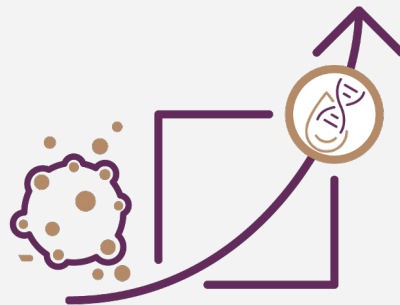
**3 Participants had  
Hematologic Malignancies**



## Conclusions



**REFLECTION has successfully recruited a diverse population of veterans**



**Cancer signal detection rate, specificity, and PPV in this cohort of veterans were consistent with other clinical studies of the MCED test<sup>1-4</sup>**



**Longer-term data will provide cancer outcomes (status, type, and stage) and veteran-reported experience with MCED testing**

MCED, multi-cancer early detection; PPV, positive predictive value. <sup>1</sup>Schrag et al. *The Lancet*. 402;1251-60 (Supplementary appendix; data for refined MCED test version). <sup>2</sup>Westgate et al. *Nature Communications*. Accepted. <sup>3</sup>Nabavizadeh et al. Presentation at European society for Medical Oncology Congress October 17-21, 2025, Berlin, Germany. <sup>4</sup>Klein et al. *Ann Oncol*. 2021;32(9):1167-77.