



# REFLECTION: Initial Findings From a Real-World Evidence Study of Multi-Cancer Early Detection (MCED) and Toxic Exposures Among Veterans in the Veterans Affairs Healthcare System (VA)

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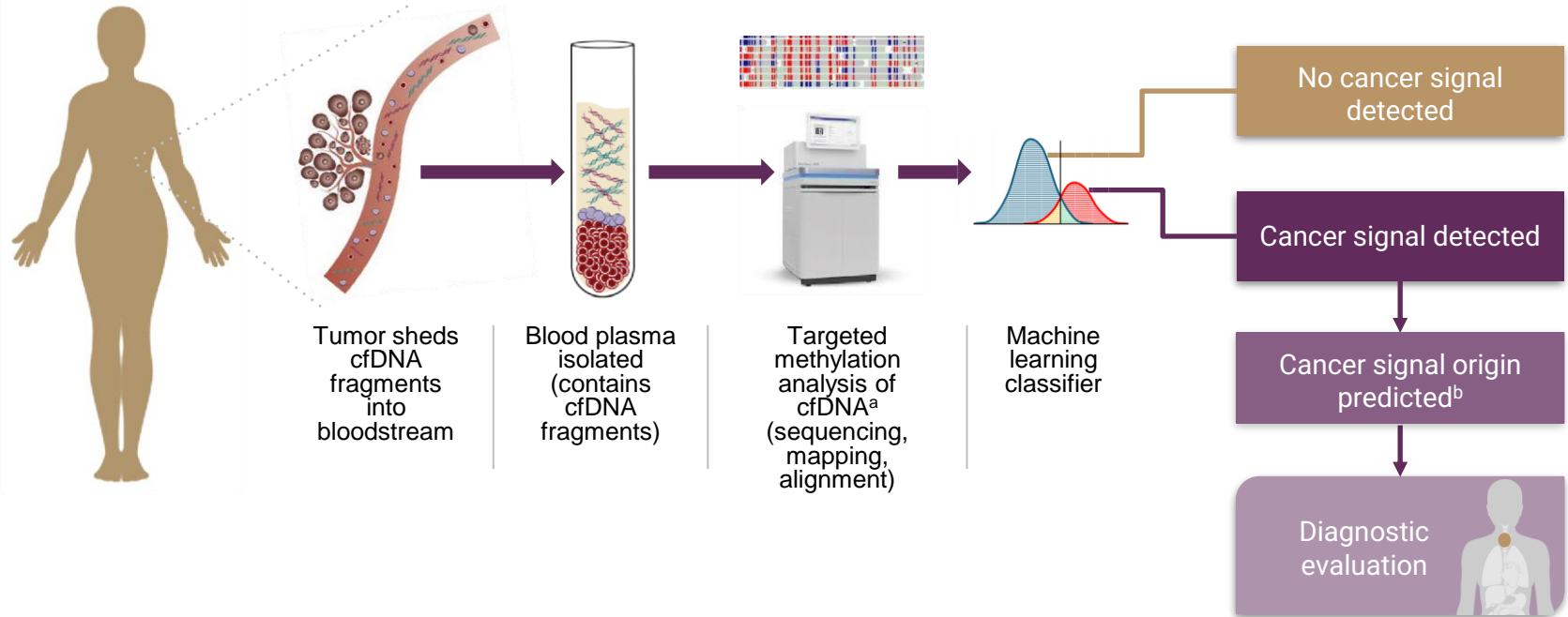
*\*At time of study*

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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



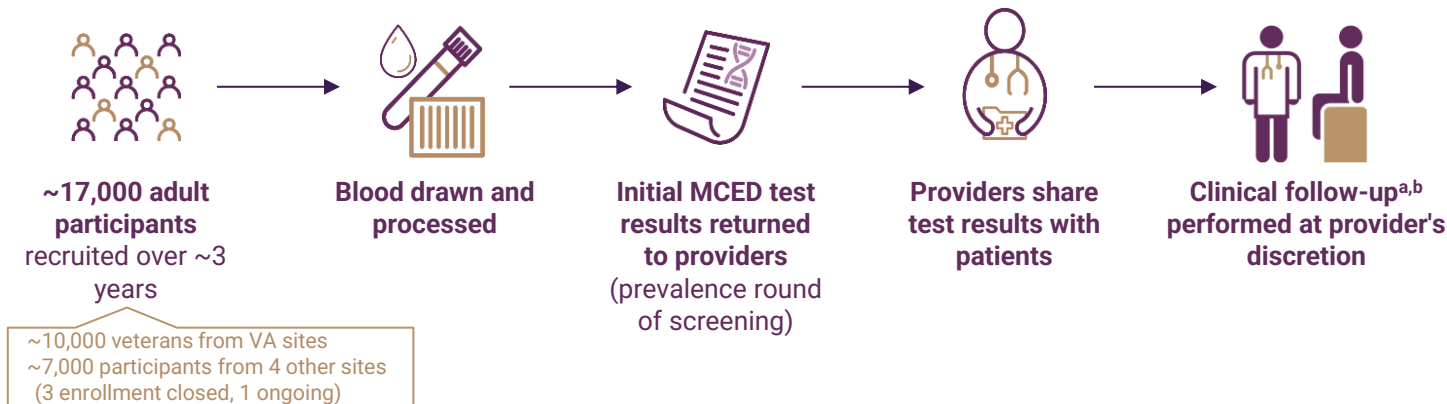
cfDNA, cell-free DNA. <sup>a</sup>Bisulfite treatment; targeted probes pull out fragments matching regions of interest. <sup>b</sup>For a detected signal, the MCED test predicts 1-2 CSOs that can be either an anatomic site (eg, colorectal) or a cellular lineage (eg, lymphoid). Adapted from Liu MC, et 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 REFLECTION is to understand the real-world experience of using the Galleri<sup>®</sup> MCED test in clinical settings






**The objective of the present analysis is to evaluate cancer signal detection and cancer outcomes in veterans ( $\geq 22$  y) with 180 days of follow-up after the MCED test result, in a preliminary analysis of the VA cohort of the ongoing REFLECTION study**

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), 6-months (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 With Broad Toxic Exposure Was Enrolled

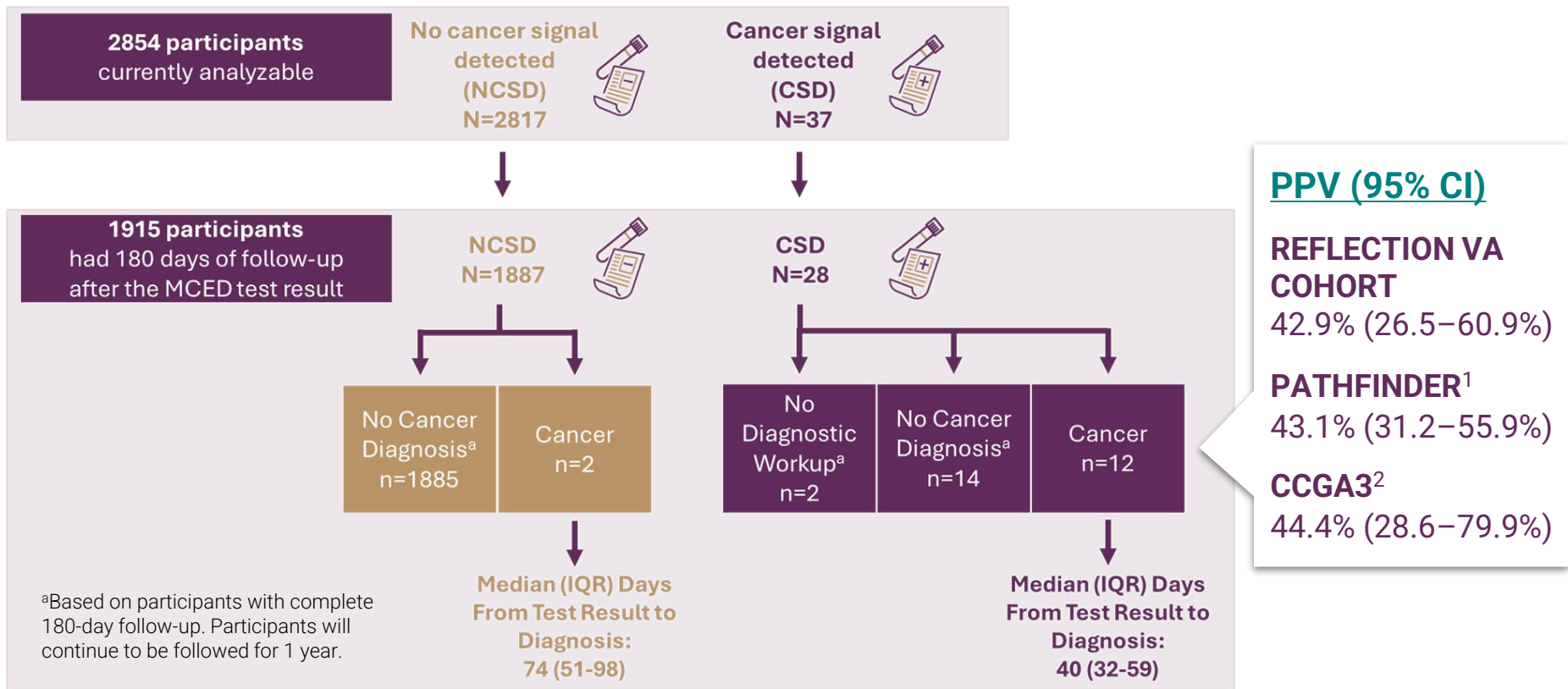
 2924 veterans have been enrolled in REFLECTION through 7 VA sites as of Apr 26, 2024

  
 2854 veterans are currently analyzable

  
 **Cancer signal detection rate: 1.30%**  
(95% CI: 0.94–1.78%)

REFLECTION Study: VA Cohort	
	62 y (median; interquartile range: 51-71 y); 40% ≥ 65 y
	79% men
	21% Black/African American, 73% White; 14% Hispanic/Latino
	59% had ever smoked, 17% current smokers
	<b>70% had environmental or occupational exposure<sup>a,b</sup></b> (e.g., open burn pits/airborne hazards, Gulf War-related exposures, agent orange, radiation, contaminated water at Camp LeJeune, and others)
	14% had a personal cancer history and 58% had a first-degree relative with a cancer history <sup>b</sup>

# The 6-Month 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



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>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 6 Months of a CSD MCED Test Result

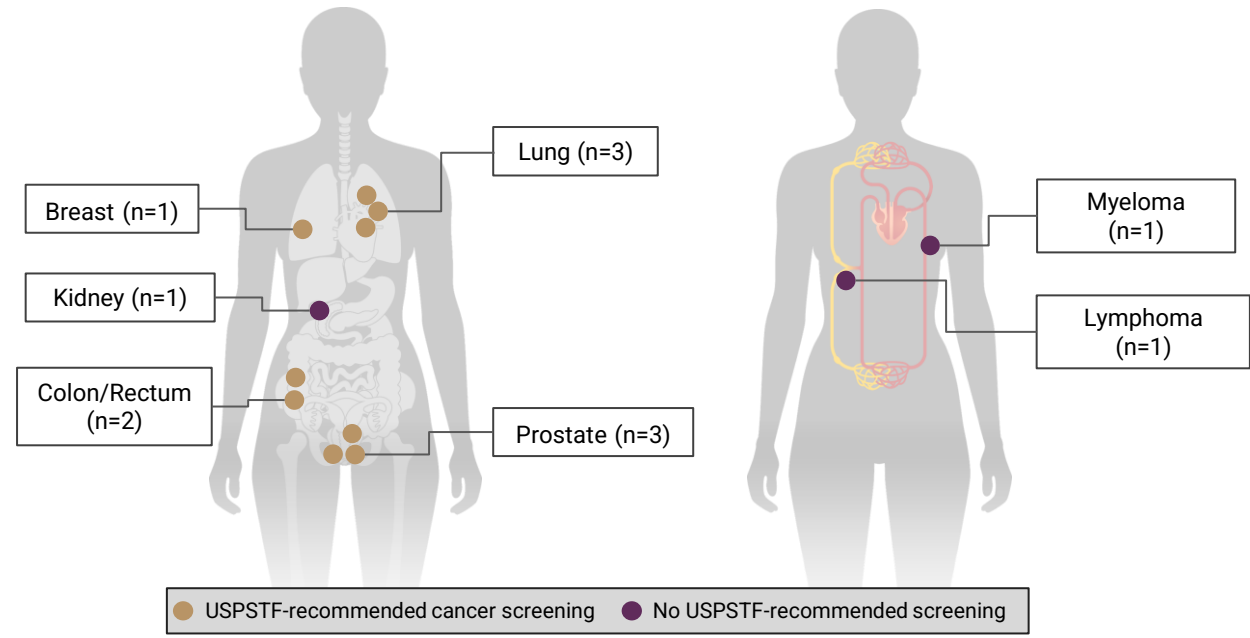
Lung and prostate cancer were most common

11 (91.7%) participants had new, non-recurrent cancer (1 unknown recurrence status)

**54.5%** of cases detected at stages I-III (n=6/11)\*

10 Participants had 10 Solid Tumors

2 Participants had 2 Hematologic Malignancies



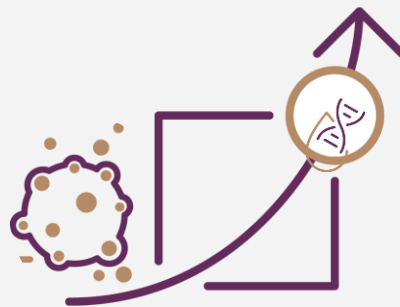
CSD, cancer signal detected; MCED, multi-cancer early detection; USPSTF, U.S. Preventive Services Task Force.  
 \*Of cases with reported stage (11/12).



## Conclusions



**REFLECTION has successfully recruited a diverse population of veterans with a broad range of toxic exposures**



**Cancer signal detection rate and PPV in this cohort of veterans were consistent with other clinical studies of the MCED test<sup>1-3</sup>**



**Longer-term data will provide veteran-reported experience with MCED testing and cancer outcomes**