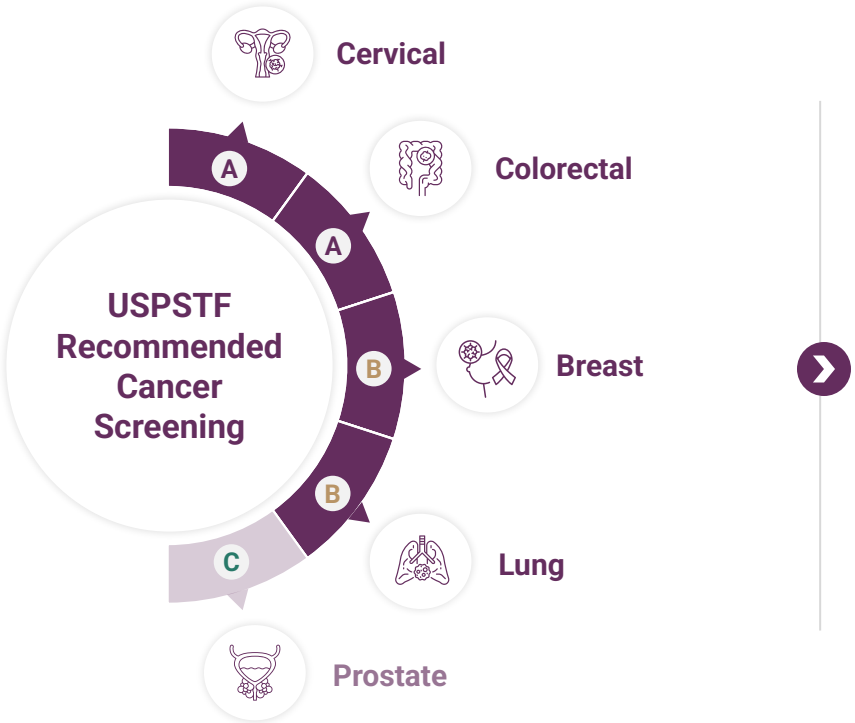
GRAIL

# Inside the Evidence: Using Multi-Cancer Early Detection (MCED) to Achieve Earlier Diagnosis

Eric Fung, MD PhD
Sir Harpal Kumar, FRCR, F Med Sci
Eric Klein, MD

US-GA-2600181-1

# The Cancer Screening Status Quo in the United States




**>600,000 people die of cancer every year in the US**

**87%**

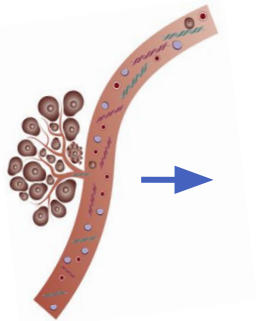
**of cancer deaths are not being addressed by recommended USPSTF A/B screening[a]**

[a]USPSTF A/B recommended screening for breast, cervical, colon, and lung cancers, accounts for lung cancer screening eligibility and non-receipt of each screening type

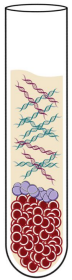
Ofman JJ, Dahut W, Jemal A, Chang ET, Clarke CA, Hubbell E, Kansal AR, Kurian AW, Colditz GA, Patel AV. Estimated proportion of cancer deaths not addressed by current cancer screening efforts in the United States. Cancer Biomark. 2025 Jan;42(1):18758592241308754.

# Galleri®: a Blood-Based Targeted Methylation MCED Test

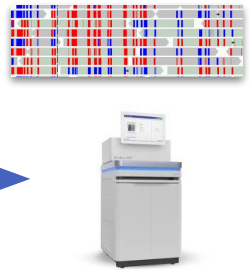
## Detects a shared cancer signal in cfDNA across hundreds of cancer types and predicts the cancer signal origin to guide efficient diagnostic evaluation[1,2]



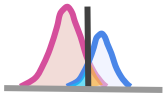
Tumor sheds cfDNA[a] fragments into bloodstream



Blood plasma isolated (contains cfDNA fragments)



Targeted methylation analysis of cfDNA[a]



1st ML classifier

Cancer signal detected (+)

No cancer signal detected (-)

With high specificity and PPV

2nd ML classifier

**Cancer signal origin (CSO) predicted[b]**

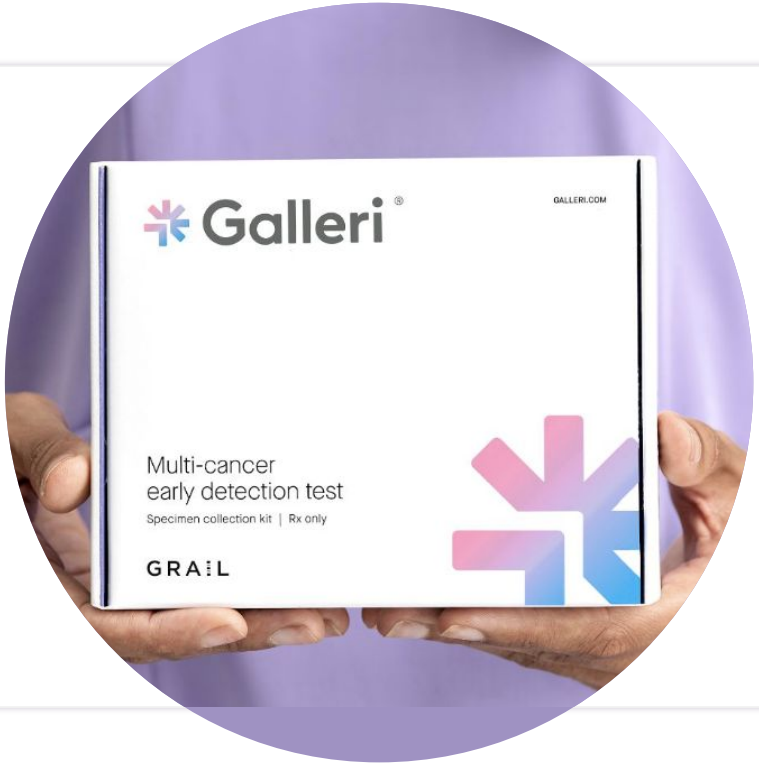
MCED, multi-cancer early detection; cfDNA, cell-free deoxyribonucleic acid; ML, machine learning

[a]Bisulfite treatment; targeted probes pull out fragments matching regions of interest. [b]For a detected signal, this MCED test version predicts 1 to 2 CSOs that can be either an anatomic site (eg, colorectal) or a cellular lineage (eg, lymphoid).

Source: Adapted from Liu MC, et al. *Ann Oncol*. 2020;31(6):745-759. 1. Liu MC, et al. *Ann Oncol*. 2020;31(6):745-759. 2. Klein EA, et al. *Ann Oncol*. 2021;32(9):1167-1177. 3. Schrag D, et al. *Lancet*. 2023;402(10409):1251-1260.

# Galleri®: high specificity MCED test[1] validated in multiple large-scale clinical studies

- Single blood test
- Very low false positive rate
- Predicts cancer signal origin
- Identifies aggressive cancers

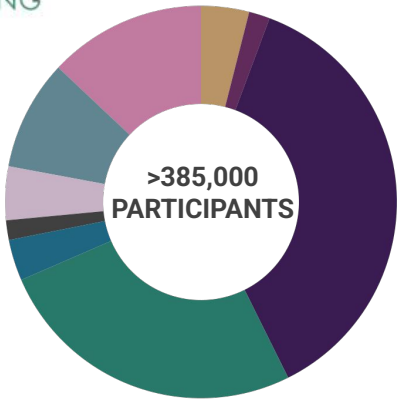



[1] Results of our large CCGA clinical study provides clinical validation for Galleri. Klein, et al, Clinical Validation of a targeted methylation-based multi-cancer early detection test using an independent validation set, Annals of Oncology 2021. Galleri was further tested in our PATHFINDER implementation study. Schrag, et al. Blood-based tests for multi-cancer early detection (PATHFINDER): a prospective cohort study, The Lancet 2023.

# GRAIL has Assembled one of the Largest (n > 385,000) Evidence Programs in Genomic Medicine

| | | | |
|---|---|---|---|
| 1 | **CCGA** (n=15,254) | **Develop and validate a cell-free DNA-based MCED test** *Enrollment: complete, published* | *Annals of Oncology* and *Cancer Cell* 2020-2023 |
| 2 | **PATHFINDER** (n=6,662) | **Evaluate clinical implementation and perceptions of MCED test** *Enrollment: complete, published* | *The Lancet* 2023 |
| 3 | **NHS-GALLERI** (n≈142,321) | **Assess clinical utility of MCED for population screening in the UK** *Enrollment: complete* | |
| 4 | **PATHFINDER 2** (n≈35,878) | **Evaluate MCED test performance in eligible screening population** *Enrollment: complete* | |
| 5 | **REACH** (n≈50,000) | **Understand health equity impact of Galleri in a Medicare population** *Enrollment: targeted mid 2024* | |
| 6 | **REFLECTION** (n≈17,000) | **Assess experience/clinical outcomes in real-world setting** *Enrollment: ongoing* | |
| 7 | **STRIVE** (n=99,481) | **Evaluate MCED test performance in women to detect invasive cancers**[a] *Enrollment: complete* | |
| 8 | **SUMMIT** (n=13,035) | **Clinical validation in individuals at high risk of lung cancer** *Enrollment: complete* | |
| 9 | **SYMPLIFY** (n=6,242) | **Assess MCED test in individuals with signs/symptoms of cancer** *Enrollment: complete, published* | *Lancet Oncology* 2023 |

2026 ASCO ANNUAL MEETING

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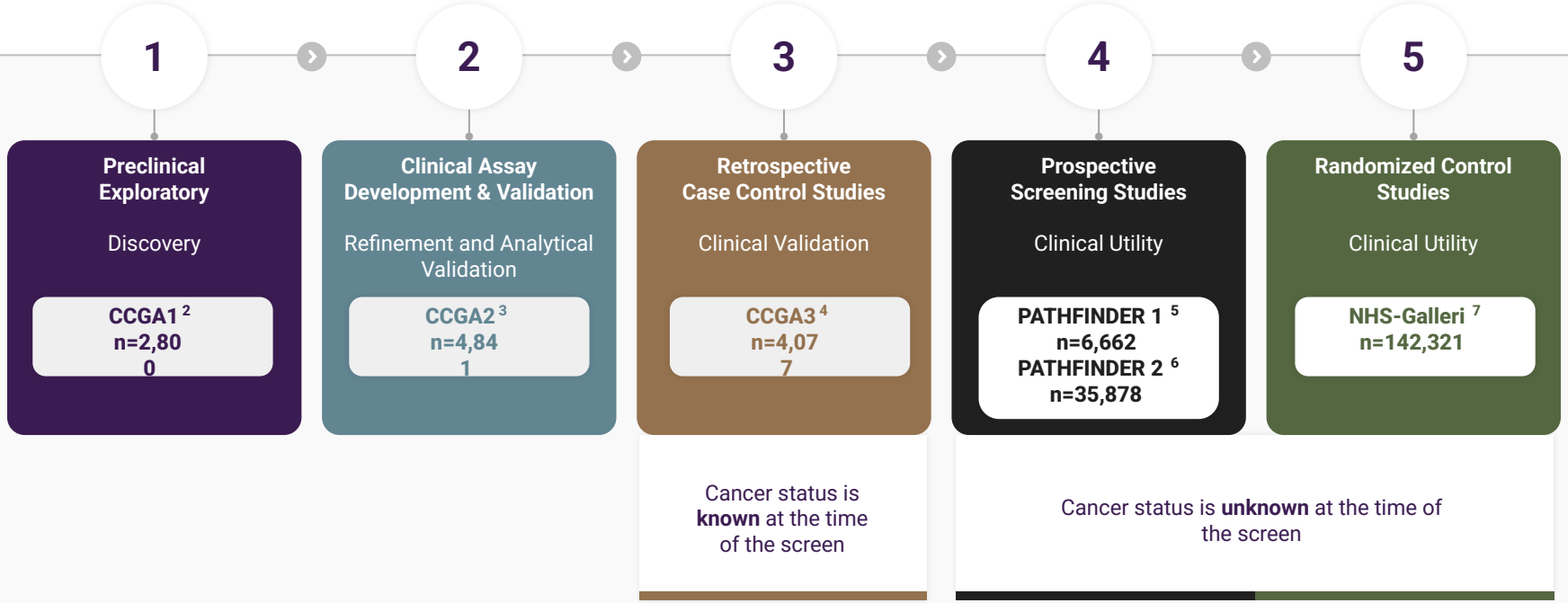
[a]In women undergoing mammography screening. [b]Study not yet available at clinicaltrials.gov.
n≈ indicates approximate enrollment.
CCGA, Circulating Cell-free Genome Atlas; DNA, deoxyribonucleic acid; MCED, multi-cancer early detection; UK, United Kingdom.

US-GA-2600181-1

# Comprehensive Studies Across the Phases of Biomarker Development[1]

Includes case-control and population-scale intended use clinical validation studies, as well as the first and only clinical utility randomized controlled trial




CCGA, Circulating Cell-free Genome Atlas Study

1. Pepe et al., JNCI 93:1054-1061; 2001. 2. Jamshidi A et al., Cancer Cell 40:1-13;2022. 3. Liu MC et al., Annals Onc 31:745-759; 2020. 4. Klein EA et al., Annals Onc 9:1167-1177;2021. 5. Schrag D et al., Lancet 402:1251-1260;2023. 6. Giridhar K. Safety and performance results from PF2 [presentation]. American Society of Clinical Oncology Annual Meeting; 2026 May 29-June 2. 7. Swanton C. NHS-Galleri: Primary Results From a Randomised Controlled Trial to Assess the Clinical Utility of a Multi-Cancer Early Detection (MCED) Test in Population Screening [presentation]. American Society of Clinical Oncology Annual Meeting; 2026 May 29-June 2

# PATHFINDER 2

# A Population-Scale Interventional Multi-Cancer Early Detection Study

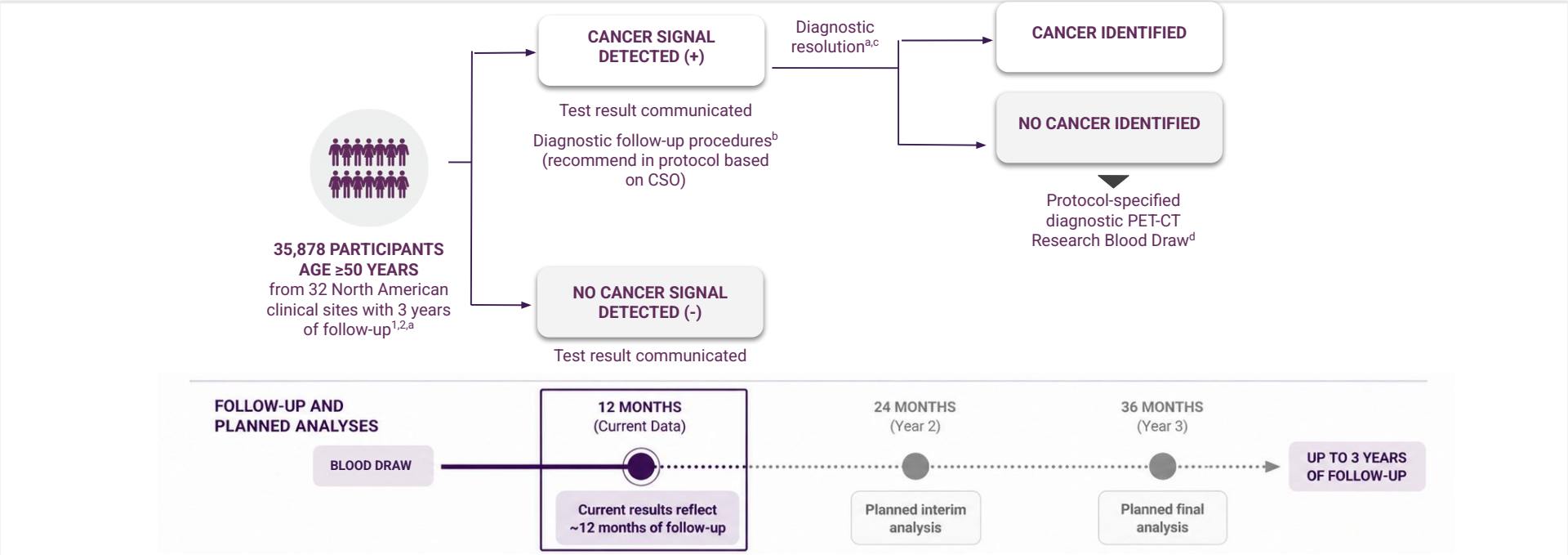
Eric Fung, MD PhD

GRAIL


CONFIDENTIAL & PROPRIETARY

# Largest Interventional MCED Study Conducted in North America to Date

**Primary Objectives: Evaluate safety and performance of the MCED test in a large, diverse intended use population**




CSO, cancer signal origin; MCED, multi-cancer early detection; PET-CT, positron emission tomography-computed tomography.
[a]All participants are actively followed by enrolling institutions for 3 years to assess cancer status and utilization of cancer screening tests on an annual basis. [b]Diagnostic evaluations based on CSO are recommended in the protocol. [c]Clinical information including, but not limited to, cancer type, histology, and staging information was collected. [d]Cancer was defined as a diagnosis of an invasive solid tumor, excluding onmetastatic basal cell carcinoma and squamous cell carcinoma of the skin, or hematologic malignancy. [e]Research blood draw also collected to understand the clinical utility of an MCED retest; results of research blood draw were not returned.

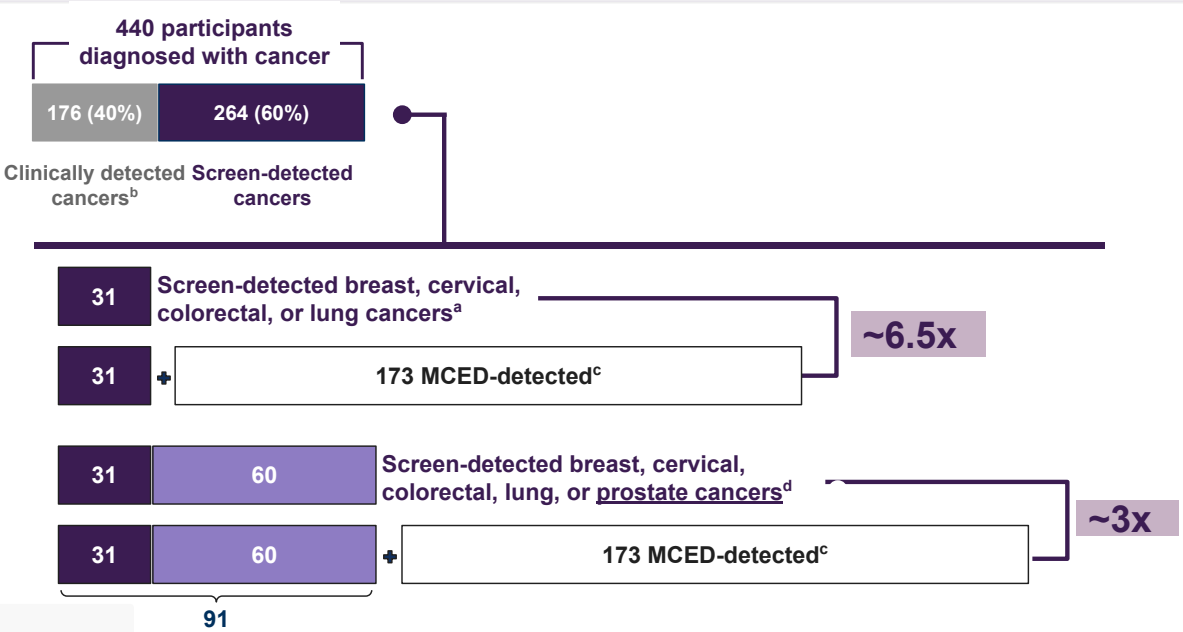
1. Giridhar KV, et al. Poster presented at American Association for Cancer Research (AACR) Annual Meeting; April 5-10, 2024; San Diego, California. 2. Nabavizadeh N, et al. Proffered Presentation presented at: European Society for Medical Oncology (ESMO) Congress; October 17-21, 2025; Berlin, Germany.

# Higher Percentage of PF2 vs NHANES[a] Reported Lifestyle Characteristics Associated with Better Health

| | PATHFINDER 2<br>N = 35,350 | NHANES (Weighted)<br>N = 114,420,685 |
|---|---|---|
| Mean age, years (SD) | 64 (8) | 64 (9) |
| Male, % | 43.8 | 46.4 |
| Hispanic, any race[b], % | 7.4 | 11.0 |
| Non-Hispanic, White[b], % | 74.6 | 69.7 |
| Non-Hispanic, Black[b], % | 8.5 | 10.3 |
| Non-Hispanic, Asian[b], % | 5.8 | 5.1 |
| Other race/ethnicity[c], % | 1.8 | 3.8 |
| **Lifestyle Characteristics** | | |
| **Bachelor's degree or higher, %** | **58.9** | **29.2** |
| **Current smoker, %** | **3.7** | **13.7** |
| **Overweight/Obese, %** | **66.5** | **70.4** |

CI, confidence interval; NHANES, National Health and Nutrition Examination Survey; y, years.
a.Clinically eligible and evaluable population. b.Missing race/ethnicity data: 1.8%. cOther includes non-Hispanic Native American, non-Hispanic multiracial, and non-Hispanic Native Hawaiian or other Pacific Islander.
Gadgeel S, et al. Poster presented at AACR Conference on the Science of Cancer Health Disparities. September 18-21, 2025. Baltimore, MD.

# 6.5x Increase in Screen-Detected Cancers When Galleri is Added to Recommended Screening[a]




MCED, multi-cancer early detection; USPSTF, United States Preventive Services Task Force.
[a]USPSTF grade A/B recommendations include screening for breast, cervical, colorectal, and lung cancers.[b]Only includes participants with negative MCED test results and a screen-detected cancer.
[c]MCED-detected refers to cancers diagnosed within 12 months following a positive MCED test result. For participants with multiple diagnosed cancers, only the method of detection for the first detected cancer is included. Only includes participants with true-positive MCED test results. [d]USPSTF grade C recommendation includes screening for prostate. [e]Clinically detected cancers includes those detected through incidental findings (n=74), signs/symptoms (n=66), surveillance (n=27), and other (n=9, 3 were follow-up of an abnormal test result, 2 were incidental findings, and 1 was unknown).
Giridhar K. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA.

# Robust Performance: Consistently High PPV

| | | Cancer Status Over 12 Months of Follow-up (Performance Analyzable Cohort) | | | |
|---|---|---|---|---|---|
| | | Cancer Diagnosis (n=440) | No Cancer Diagnosis (n=31,567) | Total (n=32,007) | Performance Metric (95% CI) |
| MCED Test Result | Positive | 173 | 114 | 287 | **PPV 60.3%** (54.5-65.8%) |
| | Negative | 267 | 31,453 | 31,720 | **NPV 99.2%** (99.1-99.3%) |
| Performance Metric (95% CI) | | **Episode Sensitivity[a] 39.3%** (34.9-44.0%) | **Specificity 99.6%** (99.6-99.7%) | | |

The MCED test PPV is **~3- to 20-fold higher** than USPSTF A/B-grade single-cancer screening tests[1-5]

The Galleri® test should be used in addition to USPSTF recommended screening tests

MCED, multi-cancer early detection; NPV, negative predictive value; PPV, positive predictive value; CI, confidence interval; USPSTF, United States Preventive Services Task Force.
[a]The proportion of cancers diagnosed within 12 months of MCED testing that were correctly identified by the test at the time it was performed. [b]Anus, Bladder/urothelial tract, Colon/rectum, Esophagus, Head and neck, Liver/intrahepatic bile duct, Lung, Lymphoid lineage, Ovary/fallopian tube, Pancreas/extrahepatic bile duct/gallbladder, Plasma cell lineage, Stomach. [c]Esophagus, Liver/intrahepatic bile duct, Lung, Ovary/fallopian tube, Pancreas/extrahepatic bile duct/gallbladder, Stomach.

1. Lehman CD, et al. *Radiology*. 2017;283:49–58. 2. Bailey SER, et al. *Br J Cancer* 2021;124:1231–1236. 3. Pinsky PF, et al. *Ann. Intern. Med.* 2015;162:485–491. 4. Pickhardt PJ, et al. *AJR Am J Roentgenol*. 2021;217:817–830. 5. Lee CI, et al. *Radiology*. 2023;307:e222499. 6. Robertson DJ, et al. *Gastrointest. Endosc*. 2017;85:2-21.e3. 7. Kim JJ, et al. *JAMA*. 2018;320:706-714. 8. Jonas DE, et al. *JAMA*. 2021;325:971-987. 5. Giridhar K. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA.

# Robust Performance: Strong Episode Sensitivity

| | | Cancer Status Over 12 Months of Follow-up (Performance Analyzable Cohort) | | | Performance Metric (95% CI) |
|---|---|---|---|---|---|
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The MCED test PPV is **~3- to 20-fold higher** than USPSTF A/B-grade single-cancer screening tests[1-5]

**Episode Sensitivity (95% CI)**

| | |
|---|---|
| 12 cancers responsible for ⅔ US cancer deaths[b] | **69.8%** (62.8-76.0%) |
| 6 aggressive cancers with low 5-year survival[c] | **66.2%** (55.1-75.8%) |
| All cancers except breast and prostate cancers | **54.9%** (48.9-60.8%) |

**Positive likelihood ratio 108.9**
Many current screening tests <10[5-8]

The Galleri® test should be used in addition to USPSTF recommended screening tests

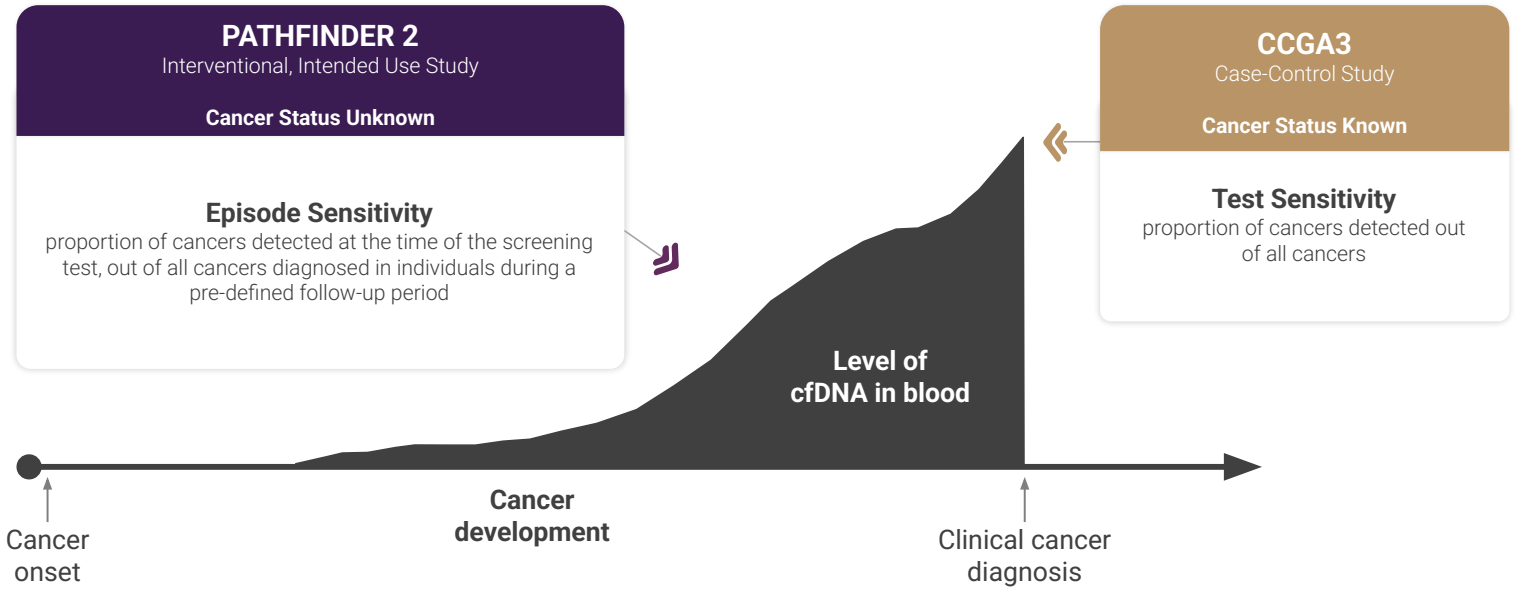
MCED, multi-cancer early detection; NPV, negative predictive value; PPV, positive predictive value; CI, confidence interval; USPSTF, United States Preventive Services Task Force.
[a]The proportion of cancers diagnosed within 12 months of MCED testing that were correctly identified by the test at the time it was performed. [b]Among group of 12 prespecified cancer types: Anus, Bladder/urothelial tract, Colon/rectum, Esophagus, Head and neck, Liver/intrahepatic bile duct, Lung, Lymphoid lineage, Ovary/fallopian tube, Pancreas/extrahepatic bile duct/gallbladder, Plasma cell lineage, Stomach. [c]Esophagus, Liver/intrahepatic bile duct, Lung, Ovary/fallopian tube, Pancreas/extrahepatic bile duct/gallbladder, Stomach.

1. Lehman CD, et al. *Radiology*. 2017;283:49–58. 2. Bailey SER, et al. *Br J Cancer* 2021;124:1231–1236. 3. Pinsky PF, et al. *Ann. Intern. Med.* 2015;162:485–491. 4. Pickhardt PJ, et al. *AJR Am J Roentgenol*. 2021;217:817–830. 5. Lee CI, et al. *Radiology*. 2023;307:e222499. 6. Robertson DJ, et al. *Gastrointest. Endosc*. 2017;85:2-21.e3. 7. Kim JJ, et al. *JAMA*. 2018;320:706-714. 8. Jonas DE, et al. *JAMA*. 2021;325:971-987. 5. Giridhar K. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA.

*Data cutoff February 11, 2026*

# Sensitivity Varies Based on Trial Design

## Episode sensitivity can only be assessed as part of an interventional intended-use screening population study

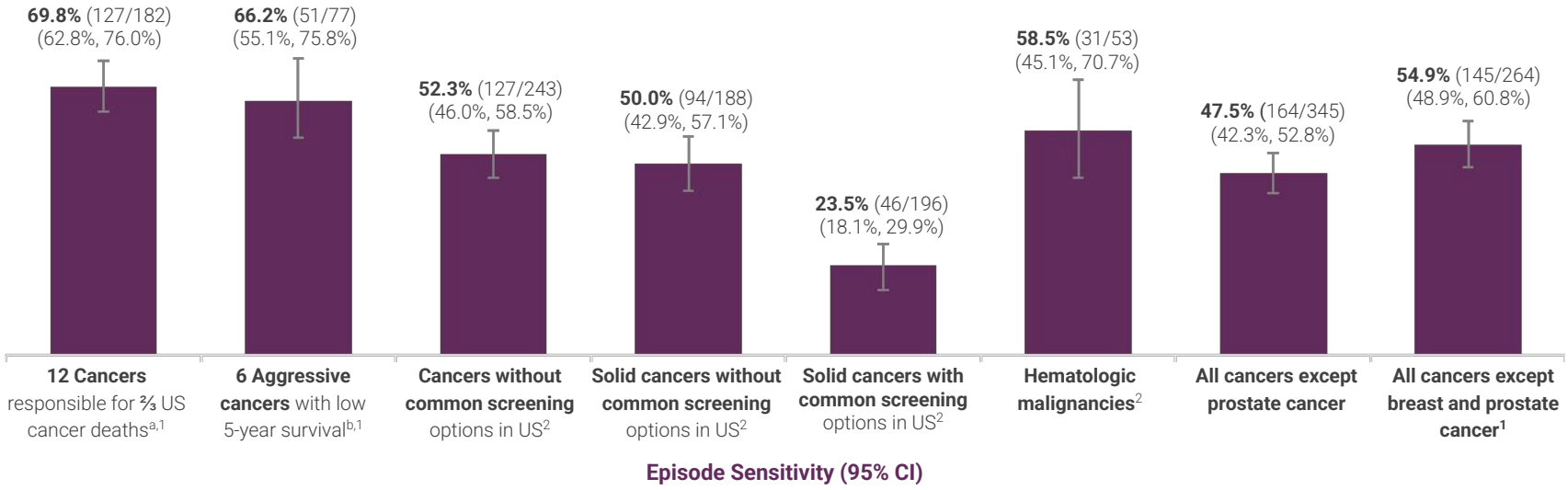




Malila, Nea et al. "Test, episode, and programme sensitivities of screening for colorectal cancer as a public health policy in Finland: experimental design." BMJ (Clinical research ed.) vol. 337 a2261. 20 Nov. 2008, doi:10.1136/bmj.a2261
Hakama, Matti et al. "Sensitivity in cancer screening." Journal of medical screening vol. 14,4 (2007): 174-7. doi:10.1258/096914107782912077

# Sensitivity Varies by Cancer Case Mix

Cross-study and cross-platform comparisons require similar study designs (eg, case-control vs intended use) and case-mix impact




**Overall Episode Sensitivity in PATHFINDER 2[1]** **39.3%**

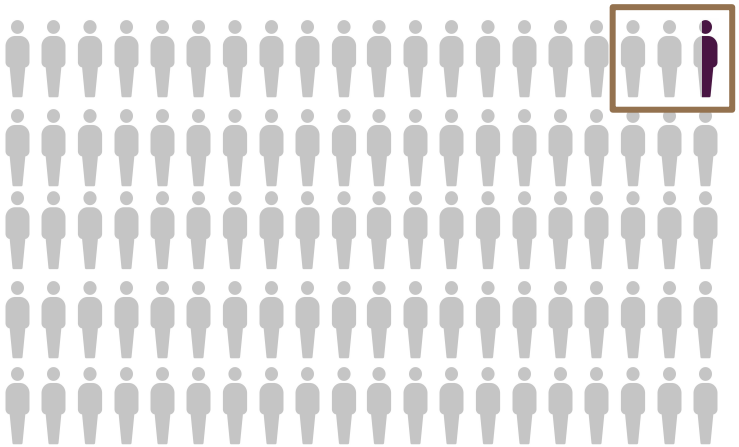
CI, confidence interval.
[a]Anus, Bladder/urothelial tract, Colon/rectum, Esophagus, Head and neck, Liver/intrahepatic bile duct, Lung, Lymphoid lineage, Ovary/fallopian tube, Pancreas/extrahepatic bile duct/gallbladder, Plasma cell lineage, Stomach. [b]Esophagus, Liver/intrahepatic bile duct, Lung, Ovary/fallopian tube, Pancreas/extrahepatic bile duct/gallbladder, Stomach.

1.Giridhar K. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA. 2. Nabavizadeh et al. 2026. [Manuscript submitted for publication].

# Galleri Demonstrates a Favorable Safety Profile

No serious, study-related AEs were reported during diagnostic workup at the time of this analysis[1]*

**Of 35,335 participants evaluated for safety who received the MCED test**



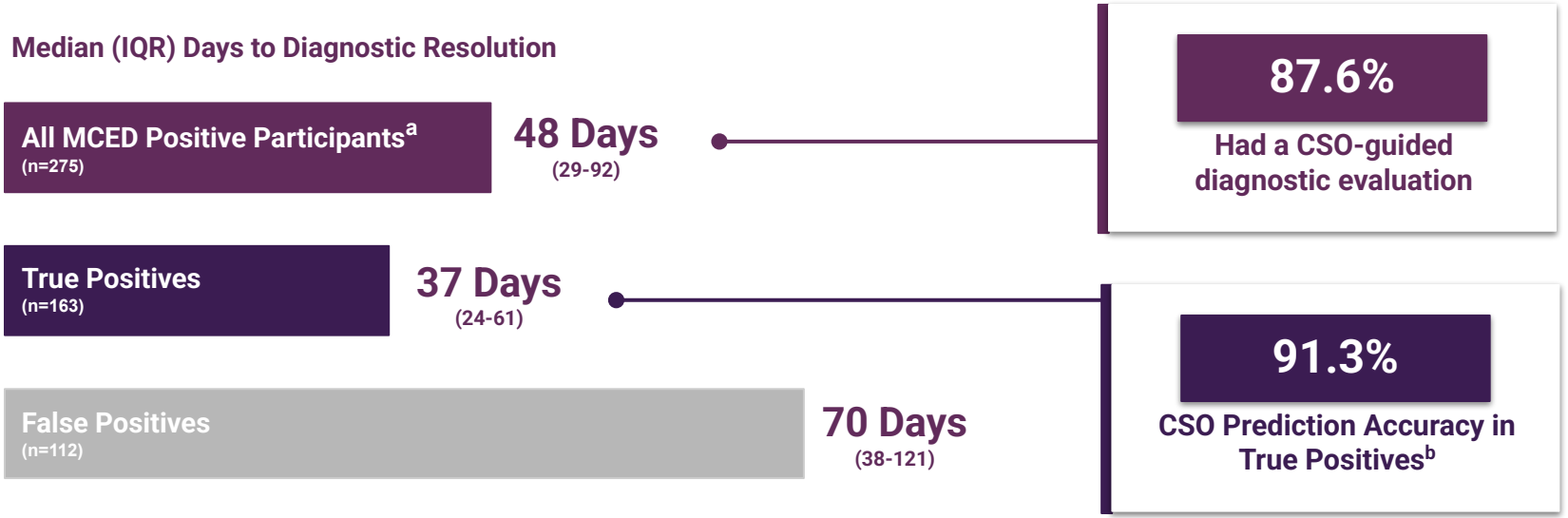
| | |
|---|---|
| <1% | Had an invasive procedure to evaluate a positive MCED result[1] |
| 85% | Of diagnostic evaluations were non-invasive[1] |
| 1.8x | Invasive procedures more common in cancer vs no cancer[2] (89% vs 46%) |
| 48 days | Fast diagnostic resolution[2] (median) |

*One serious adverse event related to the diagnostic work-up was identified after the data lock associated with this analysis. Follow-up is ongoing; this and any other findings after data lock will be reported in full in the next interim analysis.

MCED, multi-cancer early detection.

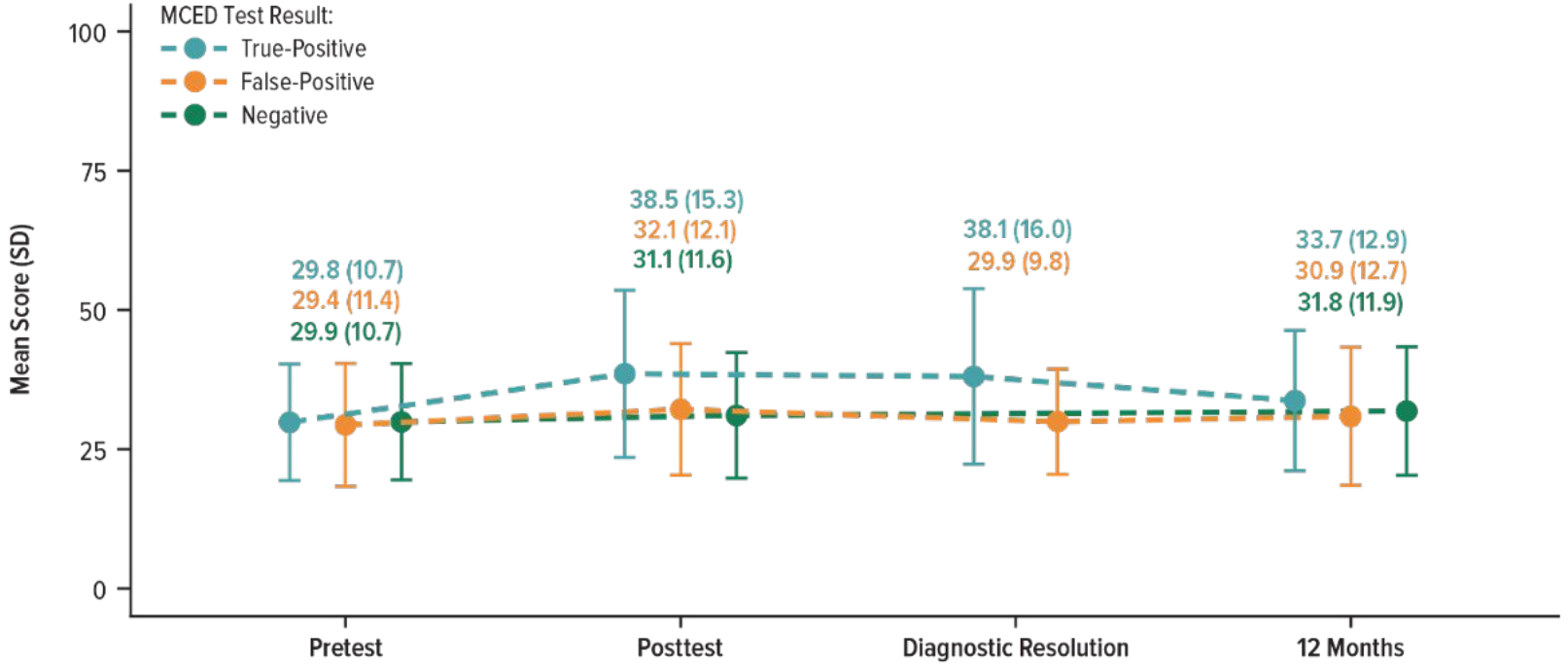
1. Giridhar K. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA. 2. Nabavizadeh et al. 2026. [Manuscript submitted for publication].

# CSO Guides Efficient Diagnostic Work-Up Following a Positive MCED Test




CI, confidence interval; CSO, cancer signal origin; IQR, interquartile range; MCED, multi-cancer early detection.
[a]Based on Kaplan-Meier analysis. [b]CSO1 or CSO2 prediction correct.
Giridhar K. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA.

# Changes in Participant-Reported Anxiety were Temporary and Returned to Pretest Levels by 12 Months




*Data cutoff February 11, 2026*

# Conclusions: Strong Benefit:Risk Profile in a Representative US Population

## Test Performance

- Episode sensitivity: **39.3%**[1]
  71% of detected new cancers were Stage I-III
- Specificity: **99.64%**[1]
- Positive predictive value (PPV): **60.3%**[1]
- MCED cancer detection rate: **0.54%**[1]
- MCED cancer signal detection rate: **0.90%**[1]
- CSO1 prediction accuracy: **87.3%**[2]
- CSO1 or CSO2 prediction accuracy **: 91.3%**[1]

## Safety

- **0.6%** underwent an invasive procedure after a positive MCED test[1]
- Invasive procedures were more common in participants with cancer vs without cancer (**91% vs 50%**)[2]
- **5** study-related adverse events (0 serious)[1,a]

* 1 site in Canada, 31 sites in US

[a]1 serious AE related to the diagnostic workup was identified after the data lock. Follow-up is ongoing; this and any other findings after data lock will be reported in full in the next interim analysis.

1. Giridhar K. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA. 2. Nabavizadeh et al. 2026. [Manuscript submitted for publication].

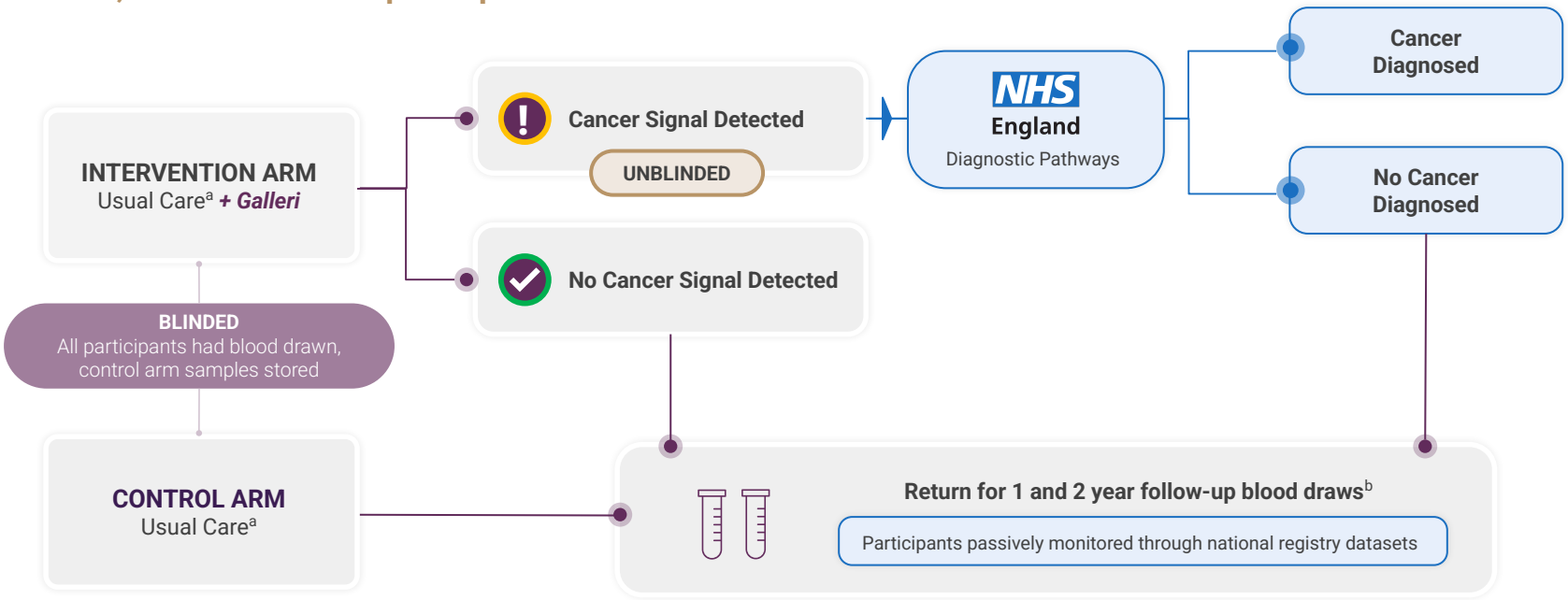
# NHS-Galleri
# The first and largest randomized controlled trial of a multi-cancer early detection test

Sir Harpal Kumar, FRCR, F Med Sci

GRAIL

# NHS-Galleri: The First and Largest Randomized Controlled Clinical Utility Trial of an MCED Test

**>142,000 consented to participate**



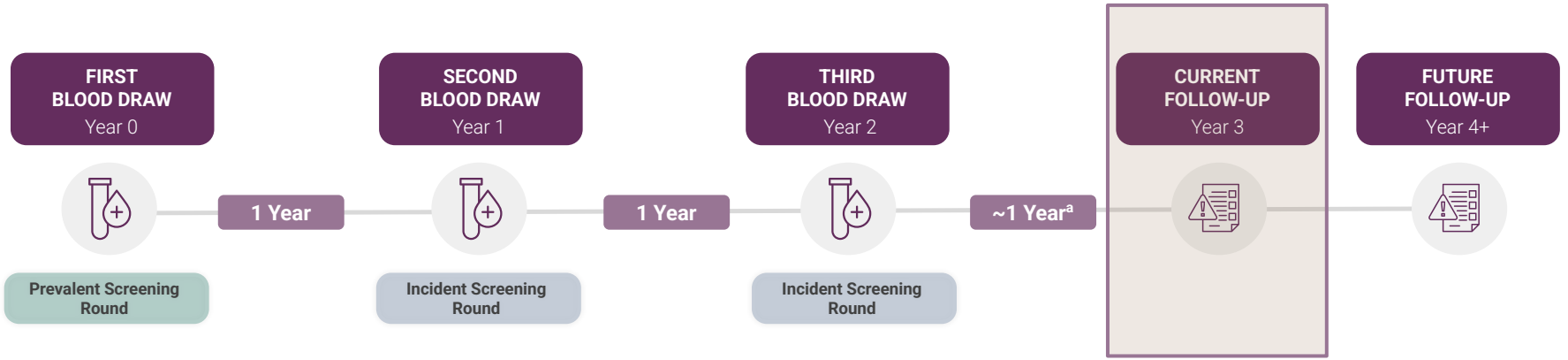

| Inclusion Criteria | 50-77 years of age | No cancer diagnosis in the past 3 years | Living in NHS Cancer Alliance regions |
|---|---|---|---|

MCED, multi-cancer early detection; NHS, National Health Service.
[a]Includes screening for breast, cervical, bowel and high-risk lung cancer. [b]Participants diagnosed with cancer through usual care are not required to return for follow-up visits.
Neal R, et al. Cancers. 2022; 14(19):4818. https://doi.org/10.3390/cancers14194818.

US-GA-2600181-1

# NHS-Galleri: The First and Largest Randomized Controlled Clinical Utility Trial of an MCED Test

**>142,000 consented to participate**



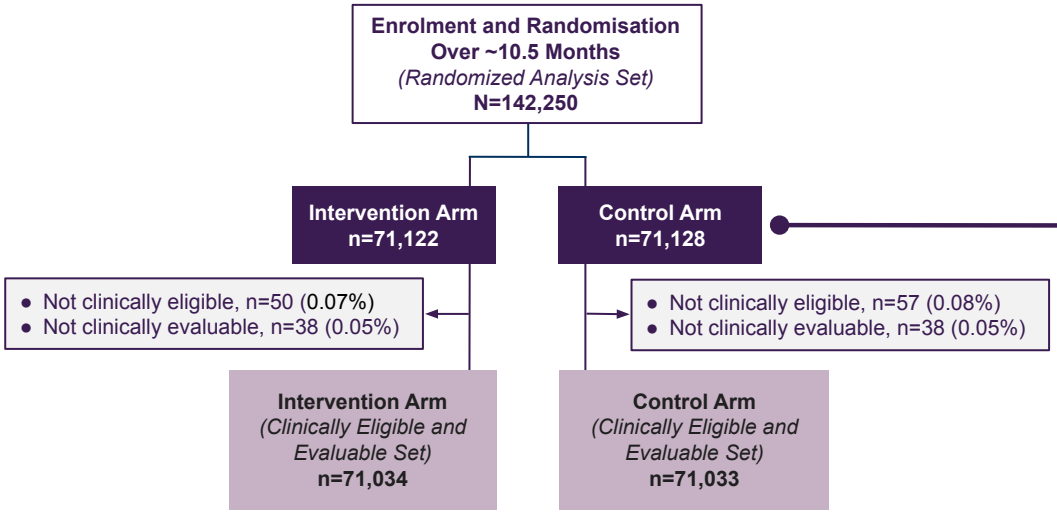

## Primary Objective

Demonstrate a significant reduction in the incidence rate of stage III and IV cancers diagnosed in the intervention arm (Galleri) compared with the control arm 3–4 years after randomization

MCED, multi-cancer early detection.
[a]Follow-up time was variable in the third screening round.
Neal R, et al. Cancers. 2022; 14(19):4818. https://doi.org/10.3390/cancers14194818.

US-GA-2600181-1

# Trial Arms Were Well Balanced and Retained Majority of Participants Over 3 Screening Rounds




**Participants retention was ~91% in the second year and ~88% in the third year of screening;**

**Median follow-up of 17 months after last screen.**

| Baseline Demographics and Characteristics | Intervention Arm (N=71,122) | Control Arm (N=71,128) |
|---|---|---|
| **Median Age (IQR), years** | 66 (59, 71) | 66 (59, 71) |
| **Age Groups** | | |
| 50-59 years | 26.4% | 26.6% |
| 60-69 years | 40.2% | 40.5% |
| 70+ years | 33.4% | 33.0% |
| **Sex,** Male | 49.8% | 49.8% |
| **Race/Ethnicity**, White | 93.6% | 93.6% |
| **Index of Multiple Deprivation** | | |
| Most Deprived | 22.6% | 22.6% |
| Least Deprived | 16.1% | 16.0% |
| **Education** | | |
| CSEs, O-levels, or Lower | 44.9% | 45.2% |
| Bachelor's Degree or Higher | 25.0% | 25.1% |
| **Smoking History** | | |
| Former Smoker | 38.3% | 38.2% |
| Current Smoker | 6.7% | 6.6% |
| **Prior Cancer History** | 7.5% | 7.5% |

CSE, certificate of secondary education; O-levels, ordinary levels.

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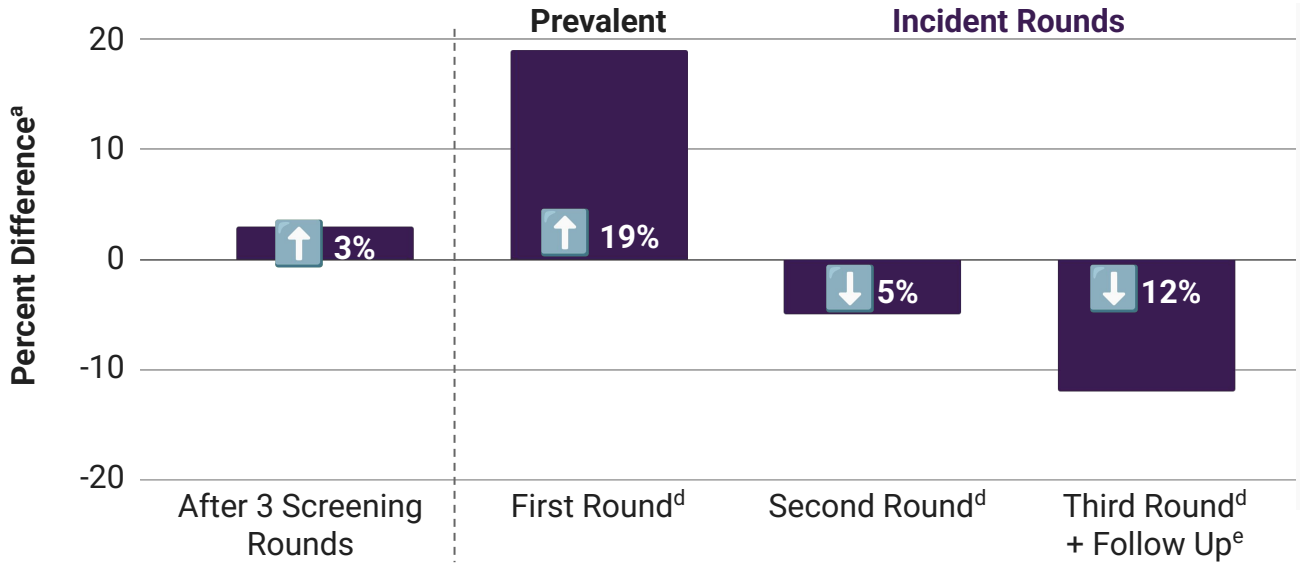
# No Significant Reduction in Stage III/IV Cancers Observed in the Intervention Arm With the Current Follow-Up Window

**Percent Difference[a] in Stage III/IV Cancers Diagnosed in the group of 12 Prespecified Cancer Types[b] (I v C)**




| Incidence Rate Ratio[c] (Intervention/Control) | 1.03 (0.92, 1.14) p=0.6324 | 1.19 (0.98, 1.43) | 0.95 (0.77, 1.17) | 0.88 (0.73, 1.07) |
|---|---|---|---|---|

Relative incidence of stage III/IV cancers **decreased** after the first screening round

C, control arm; I, intervention arm.
[a]Percent difference was calculated with incidence rate ratios as part of the prespecified analysis. [b]12 prespecified cancer types lung, head & neck, colorectal, pancreas, myeloma/plasma cell neoplasm, liver/bile duct, stomach, esophagus, anus, lymphoma, ovary, and bladder. [c]Incidence rate ratio compares the frequency of cancer diagnoses between the intervention and control arm and accounts for different lengths of follow-up times. [d]Not all participants attended every screening round; thus, some cancers were not assigned a screening round. [e]Follow-up time was variable in the third screening round and ranged from 12 to 22 months.
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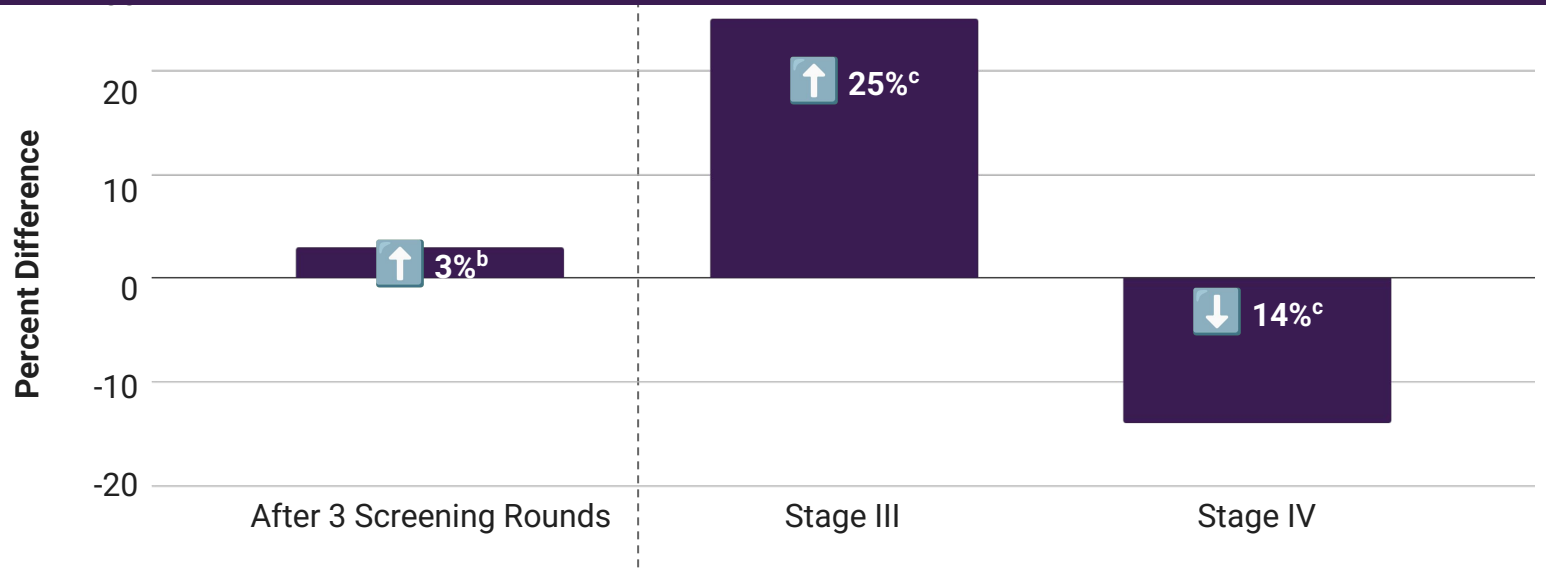
# No Significant Reduction in Stage III/IV Cancers Appears to Be Driven By Increase in Stage III Cancers Diagnosed

**Percent Difference in Stage III/IV Cancers Diagnosed in the group of 12 Prespecified Cancer Types[a] (I v C)**




| | |
|---|---|
| **Incidence Rate Ratio[d] (Intervention/Control)** | **1.03 (95% CI, 0.92, 1.14) p=0.6324** |

C, control arm; I, intervention arm.

[a]12 prespecified cancer types were lung, head & neck, colorectal, pancreas, myeloma/plasma cell neoplasm, liver/bile duct, stomach, esophagus, anus, lymphoma, ovary, and bladder. [b]Percent difference was calculated with incidence rate ratios as part of the prespecified analysis. [c]Percent difference was calculated with raw cancer counts for illustrative purposes, not as part of a stage-shift endpoint. [d]Incidence rate ratio compares the frequency of cancer diagnoses between the intervention and control arm and accounts for different lengths of follow-up times.

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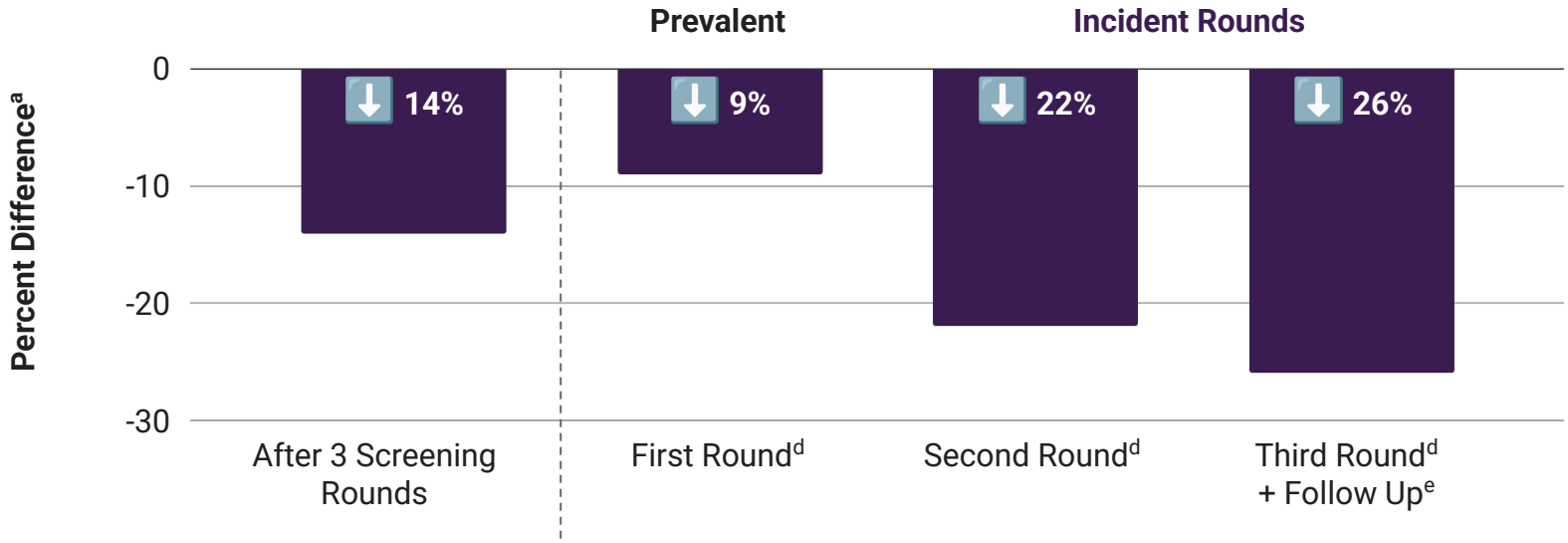
# Relative Incidence of Stage IV Cancers Decreased in Each Screening Round: ≥22.0% Reduction in Incident Rounds

**Percent Difference[a] in Stage IV Cancers Diagnosed in the group of 12 Prespecified Cancer Types[b] (I v C)**




| Incidence Rate Ratio[c] (Intervention/Control) | **0.86 (0.744, 0.998)** | 0.91 (0.71, 1.18) | 0.78 (0.57, 1.06) | 0.74 (0.57, 0.95) |
|---|---|---|---|---|

C, control arm; I, intervention arm.
[a]Percent difference was calculated with incidence rate ratios as part of the prespecified analysis. [b]12 prespecified cancer types lung, head & neck, colorectal, pancreas, myeloma/plasma cell neoplasm, liver/bile duct, stomach, esophagus, anus, lymphoma, ovary, and bladder. [c]Incidence rate ratio compares the frequency of cancer diagnoses between the intervention and control arm and accounts for different lengths of follow-up times. [d]Not all participants attended every screening round; thus, some cancers were not assigned a screening round. [e]Follow-up time was variable in the third screening round and ranged from 12 to 22 months.
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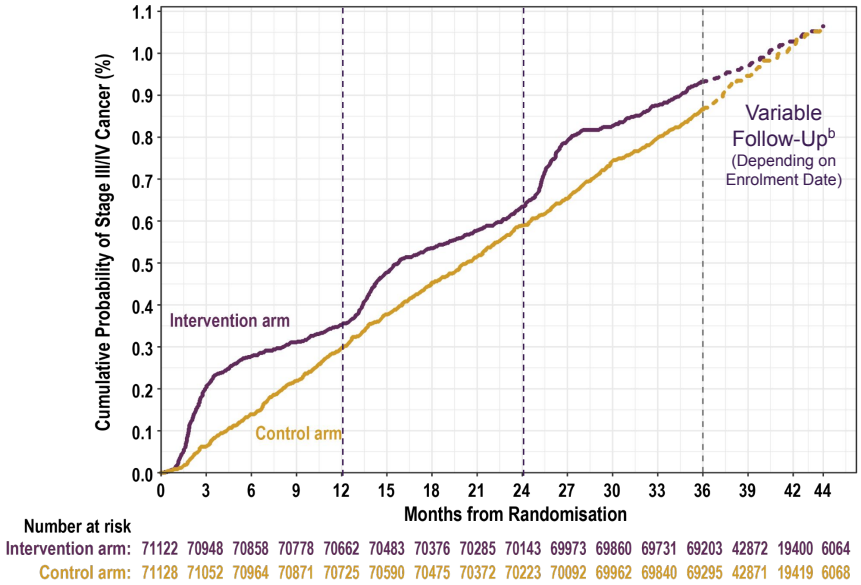
# No Significant Reduction in Stage III/IV Cancers Observed in the Intervention Arm With the Current Follow-Up Window

## In the 12 pre-specified cancers[a]

### Cumulative Probability of Stage III/IV Cancer




Relative incidence of stage III/IV cancers **decreased** after the first screening round

| Stage III/IV Cancers Diagnosed | Intervention vs Control | |
|---|---|---|
| | Incidence Rate Ratio | % Difference[c] (n vs n)[d] |
| **After 3 Screening Rounds** | **1.03 (0.92, 1.14) p=0.6324** | **↑ 3% 706 vs 688** |
| First Screening Round (Prevalent) | 1.19 (0.98, 1.43) | ↑ 19% 250 vs 211 |
| Second Screening Round (Incident) | 0.95 (0.77, 1.17) | ↓ 5% 179 vs 189 |
| Third Screening Round (Incident)[e] | 0.88 (0.73, 1.07) | ↓ 12% 214 vs 243 |

[a]12 prespecified cancer types were lung, head & neck, colorectal, pancreas, myeloma/plasma cell neoplasm, liver/bile duct, stomach, esophagus, anus, lymphoma, ovary, and bladder. [b]Administrative censoring. [c]Percent difference was calculated with incidence rate ratios as part of the prespecified analysis, not raw cancer counts (included for illustrative purposes). [d]Not all participants attended every screening round; thus, some cancers were not assigned a screening round. [e]Follow-up time was variable in the third screening round and ranged from 12 to 22 months.

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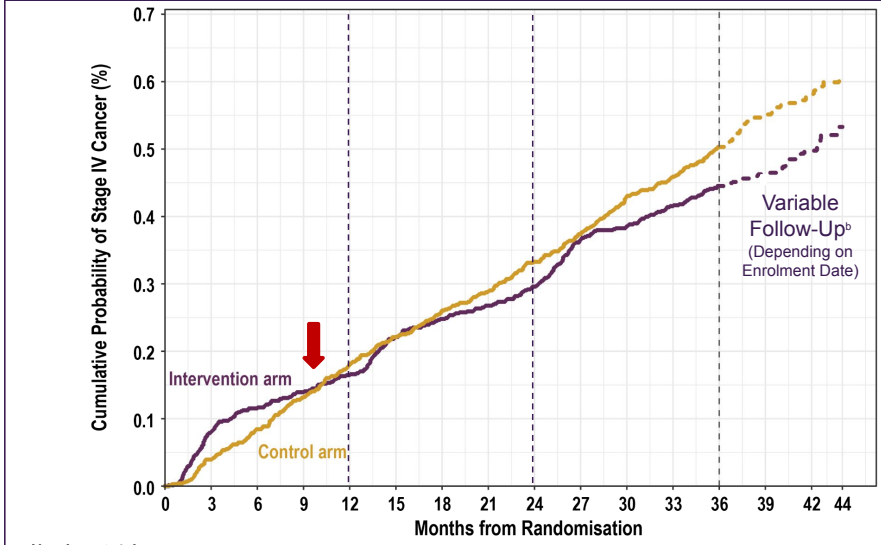
# 14% Reduction in Stage IV Cancers Observed in the Intervention Arm; ≥22% Reduction in Incident Rounds

## In the 12 pre-specified cancers[a]

### Cumulative Probability of Stage IV Cancer




Relative incidence of stage IV cancers **decreased** each screening round

| Stage IV Cancers Diagnosed | Intervention vs Control | |
|---|---|---|
| | Incidence Rate Ratio | % Difference[c] (n vs n)[d] |
| **After 3 Screening Rounds** | **0.86 (0.744, 0.998)** | **↓ 14% 342 vs 397** |
| First Screening Round (Prevalent) | 0.91 (0.71, 1.18) | ↓ 9% 117 vs 128 |
| Second Screening Round (Incident) | 0.78 (0.57, 1.06) | ↓ 22% 78 vs 100 |
| Third Screening Round (Incident)[e] | 0.74 (0.57, 0.95) | ↓ 26% 104 vs 142 |

[a]12 prespecified cancer types were lung, head & neck, colorectal, pancreas, myeloma/plasma cell neoplasm, liver/bile duct, stomach, esophagus, anus, lymphoma, ovary, and bladder. [b]Administrative censoring. [c]Percent difference was calculated with incidence rate ratios as part of the prespecified analysis, not raw cancer counts (included for illustrative purposes). [d]Not all participants attended every screening round; thus, some cancers were not assigned a screening round. [e]Follow-up time was variable in the third screening round and ranged from 12 to 22 months.

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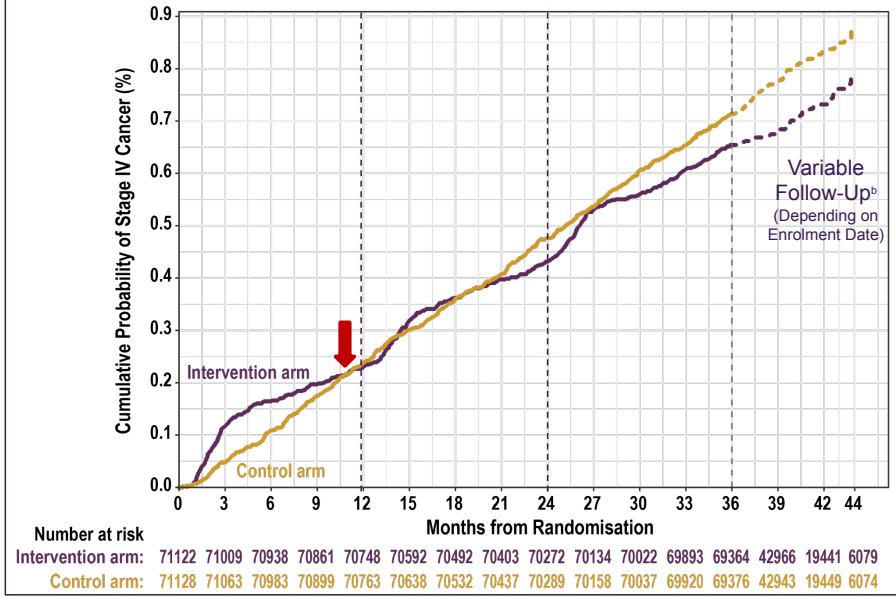
# 11% Reduction in Stage IV Cancers Observed Across All Cancers in the Intervention Arm; >20% Reduction in Incident Rounds

## In all routinely stage cancer types[a]

### Cumulative Probability of Stage IV Cancer




Relative incidence of stage IV cancers **decreased** each screening round

| Stage IV Cancers Diagnosed | Intervention vs Control | |
|---|---|---|
| | Incidence Rate Ratio | % Difference[c] (n vs n)[d] |
| **After 3 Screening Rounds** | **0.89 (0.79, 1.01)** | **↓ 11% 503 vs 563** |
| First Screening Round (Prevalent) | 0.97 (0.78, 1.21) | ↓ 3% 164 vs 169 |
| Second Screening Round (Incident) | 0.78 (0.61, 1.00) | ↓ 22% 120 vs 154 |
| Third Screening Round (Incident)[e] | 0.80 (0.65, 0.99) | ↓ 20% 158 vs 198 |

[a]Including prostate. [b]Administrative censoring. [c]Percent difference was calculated with incidence rate ratios as part of the prespecified analysis, not raw cancer counts (included for illustrative purposes). [d]Not all participants attended every screening round; thus, some cancers were not assigned a screening round. [e]Follow-up time was variable in the third screening round and ranged from 12 to 22 months.

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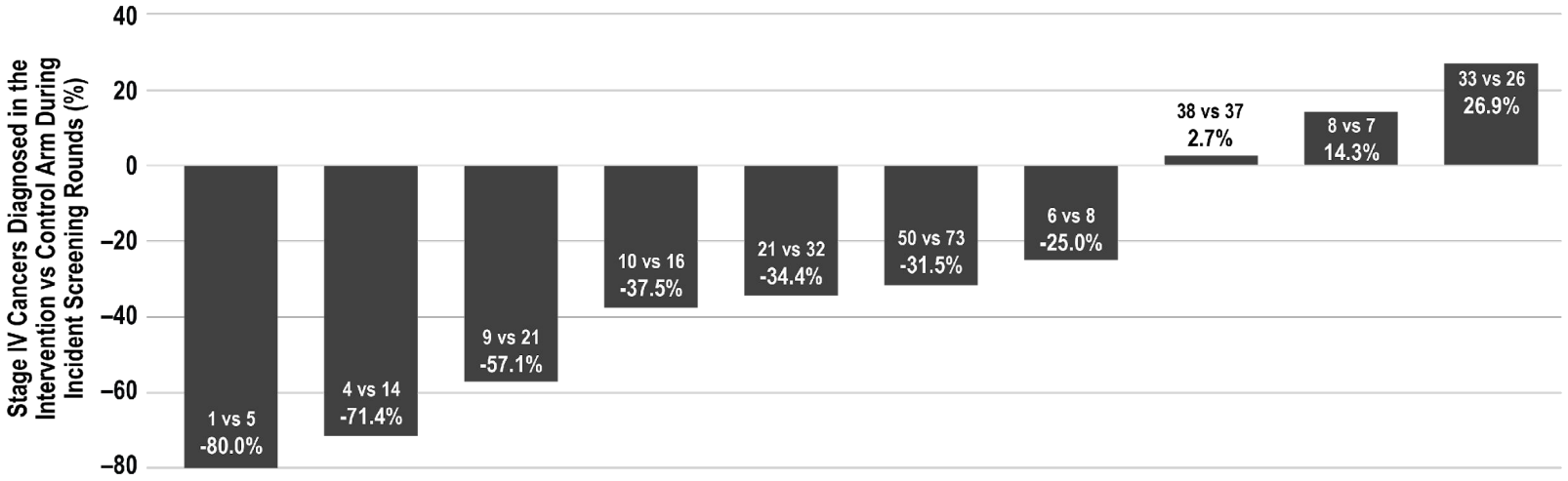
# Differences in Stage IV Diagnoses of Cancer Types Where 5-Year Survival is Substantially Higher When Diagnosed at Stage III




| | | Bladder | Liver/bile duct | Oesophagus | Head & neck | Colorectum | Lung | Stomach | Lymphoma | Ovary | Pancreas |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **England 5-year net survival estimates[b,1]** | Stage IV | 5.8% | 2.6% | 6.2% | 38.4% | 11.0% | 4.5% | 4.5% | 65.7% | 16.2% | 2.1% |
| | Stage III | 31.8% | 13.5% | 24.7% | 54.5% | 64.2% | 16.7% | 24.6% | 72.6% | 32.4% | 8.7% |
| | Difference | +26.0% | +10.9% | +18.5% | +16.1% | +53.2% | +12.2% | +20.1% | +6.9% | +16.2% | +6.6% |

[a]12 prespecified cancer types were lung, head & neck, colorectal, pancreas, myeloma/plasma cell neoplasm, liver/bile duct, stomach, esophagus, anus, lymphoma, ovary, and bladder. Anus and myeloma/plasma cell neoplasms were excluded from the graph due to having only 0 to 1 stage IV cancers in each arm. [b]For patients diagnosed in England 2018-2022 (all ages) by stage at diagnosis. [1]Cancer Survival in England, cancers diagnosed 2018 to 2022, followed up to 2023. 2026. Accessed May 19, 2026. https://digital.nhs.uk/data-and-information/publications/statistical/cancer-survival-in-england/.

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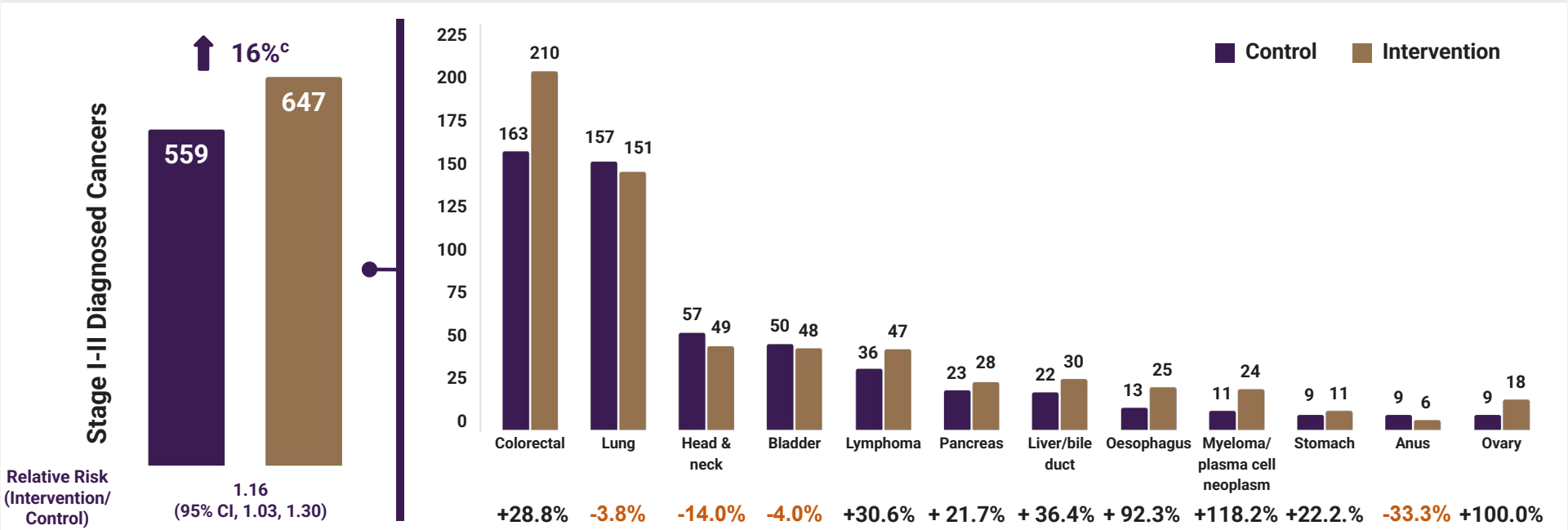
# Shift to Stage I-II Cancer[a] Detection With MCED Screening Added to SOC After 3 Screening Rounds

## In the 12 pre-specified cancers[b]




MCED, multi-cancer early detection; SOC, standard-of-care. [a]Per highest stage. [b]12 prespecified cancer types were lung, head & neck, colorectal, pancreas, myeloma/plasma cell neoplasm, liver/bile duct, stomach, esophagus, anus, lymphoma, ovary, and bladder. [c]Percent difference was calculated with relative risk as part of the prespecified analysis, not raw cancer counts (graphed in bar charts for illustrative purposes).

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# Robust MCED Test Performance in UK Population

## Aggregate MCED Test Performance Over 3 Screening Rounds[a]

| | | Cancer Status | | | |
|---|---|---|---|---|---|
| | | Cancer Diagnosis (n=3,051) | No Cancer Diagnosis (n=194,095) | Total (N=197,146) | Performance Metric (95% CI) |
| MCED Test Result | Positive | 937 | 864 | 1801 | **PPV 52.0%** (49.7-54.3%) |
| | Negative | 2114 | 193,231 | 195,345 | **NPV 98.92%** (98.87-98.96%) |
| Performance Metric (95% CI) | | **Episode Sensitivity[b] 30.7%** (29.1-32.4%) | **Specificity 99.55%** (99.52-99.58%) | | |

**CSO Accuracy**
**92.5%**
(90.7-94.0%)

**PPV**
**First Screening Round**
**58.0%**
(54.4-61.6%)

CI, confidence interval; CSO, Cancer Signal Origin; MCED, multi-cancer early detection; NPV, negative predictive value; PPV, positive predictive value.
[a]Calculated using all participants within the intervention-arm test performance analyzable set, defined as participants who were clinically eligible and evaluable and had evaluable MCED test results; third round follow-up time was 12 months.
[b]12-month episode sensitivity was calculated as the number of participants with a positive MCED test result and a cancer diagnosis within the follow-up period for that round out of all participants with a cancer diagnosed during the follow-up period.
Swanton C, et al. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA.

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# Robust MCED Test Performance in UK Population

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| Performance Metric (95% CI) | | **Episode Sensitivity[b] 30.7%** (29.1-32.4%) | **Specificity 99.55%** (99.52-99.58%) | | |

**CSO Accuracy 92.5%** (90.7-94.0%)

**PPV First Screening Round 58.0%** (54.4-61.6%)

**Episode Sensitivity[b] First Screening Round 37.2%** (34.4-40.0%)

CI, confidence interval; CSO, Cancer Signal Origin; MCED, multi-cancer early detection; NPV, negative predictive value; PPV, positive predictive value.

[a]Calculated using all participants within the intervention-arm test performance analyzable set, defined as participants who were clinically eligible and evaluable and had evaluable MCED test results; third round follow-up time was 12 months.

[b]12-month episode sensitivity was calculated as the number of participants with a positive MCED test result and a cancer diagnosis within the follow-up period for that round out of all participants with a cancer diagnosed during the follow-up period.

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# Robust MCED Test Performance in UK Population

## Aggregate MCED Test Performance Over 3 Screening Rounds[a]

| | | Cancer Status | | | |
|---|---|---|---|---|---|
| | | Cancer Diagnosis (n=3,051) | No Cancer Diagnosis (n=194,095) | Total (N=197,146) | Performance Metric (95% CI) |
| MCED Test Result | Positive | 937 | 864 | 1801 | **PPV** **52.0%** (49.7-54.3%) |
| | Negative | 2114 | 193,231 | 195,345 | **NPV** **98.92%** (98.87-98.96%) |
| Performance Metric (95% CI) | | **Episode Sensitivity[b]** **30.7%** (29.1-32.4%) | **Specificity** **99.55%** (99.52-99.58%) | | |

**Episode Sensitivity[b] First Screening Round** **37.2%** (34.4-40.0%)

**CSO Accuracy** **92.5%** (90.7-94.0%)

**PPV First Screening Round** **58.0%** (54.4-61.6%)

**12 Prespecified Cancer Types**

**Episode Sensitivity[b] Aggregated Across Rounds** **54.7%** (51.8-57.5%)

**First Screening Round** **63.4%** (58.9-67.7%)

CI, confidence interval; CSO, Cancer Signal Origin; MCED, multi-cancer early detection; NPV, negative predictive value; PPV, positive predictive value.

[a]Calculated using all participants within the intervention-arm test performance analyzable set, defined as participants who were clinically eligible and evaluable and had evaluable MCED test results; third round follow-up time was 12 months.

[b]12-month episode sensitivity was calculated as the number of participants with a positive MCED test result and a cancer diagnosis within the follow-up period for that round out of all participants with a cancer diagnosed during the follow-up period.

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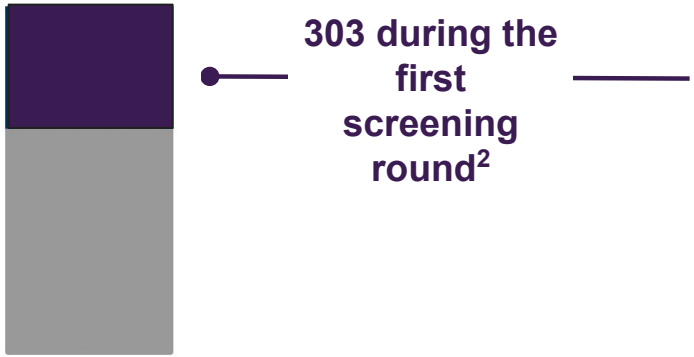
# Overall False Positive Rate of 0.45% With the MCED Test

**864 False Positives[1]**



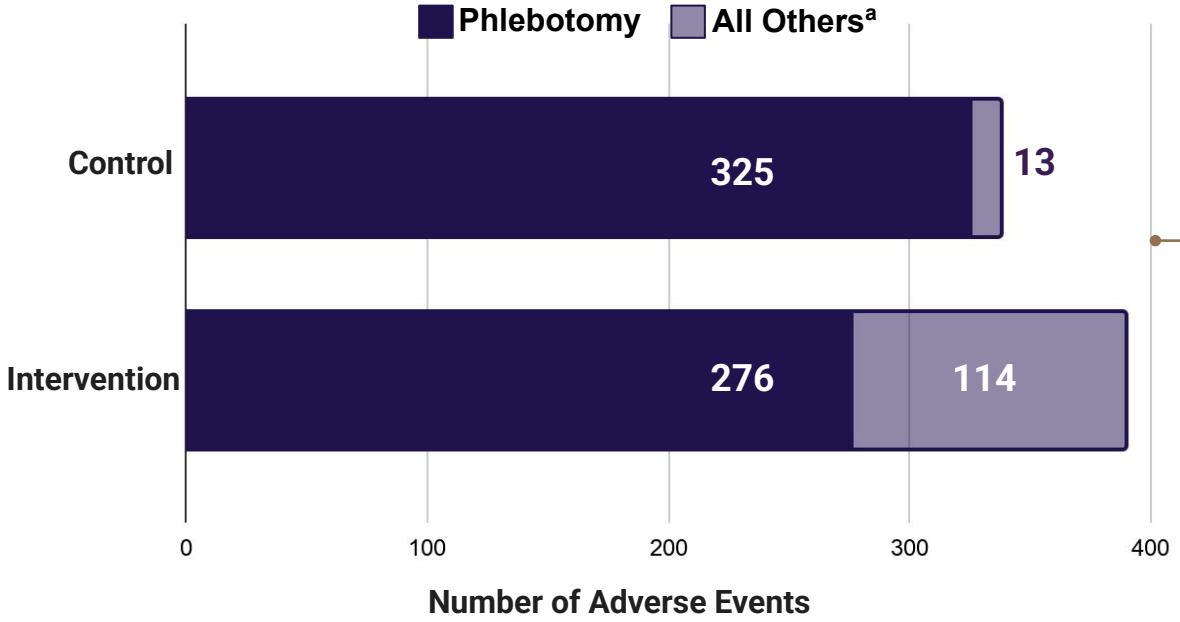

- **54 (17.8%) were subsequently diagnosed with cancer** in the second or third screening round[2]
- Of these, **44 (81%)** had a correct CSO prediction in the first screening round[2]

CSO, cancer signal origin; MCED, multi-cancer early detection.
1. Swanton C, et al. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA. 2. GRAIL, Inc. Data on File GR-2026-0280: NHS-Galleri Supplemental

US-GA-2600181-1

# Galleri Was Safe When Implemented at Population Scale

**0.45% (321/71,128)** and **0.52% (371/71,122)** participants in the control and intervention arms, respectively, **experienced a study-related AE** collected from blood sample collection up to referral into NHS



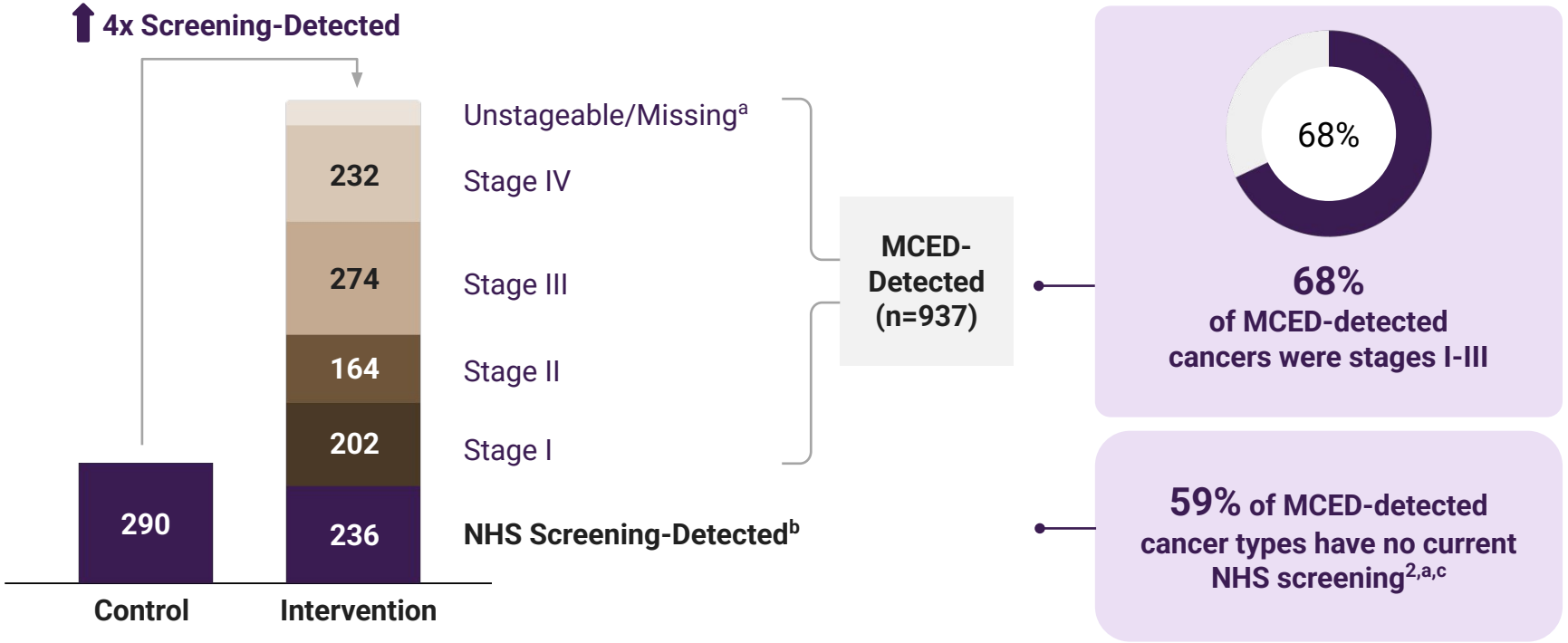

**No serious study-related AEs occurred** from blood sample collection or return-of-test results

**Non-phlebotomy related AEs were mostly:**

- Anxiety (1/13 control; 88/114 intervention)
- Emotional distress (10/13 control; 9/114 intervention)

AE, adverse event; MCED, multi-cancer early detection.
[a]All others includes non-phlebotomy AEs, with anxiety and emotional distress being the most common.
Swanton C, et al. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA.

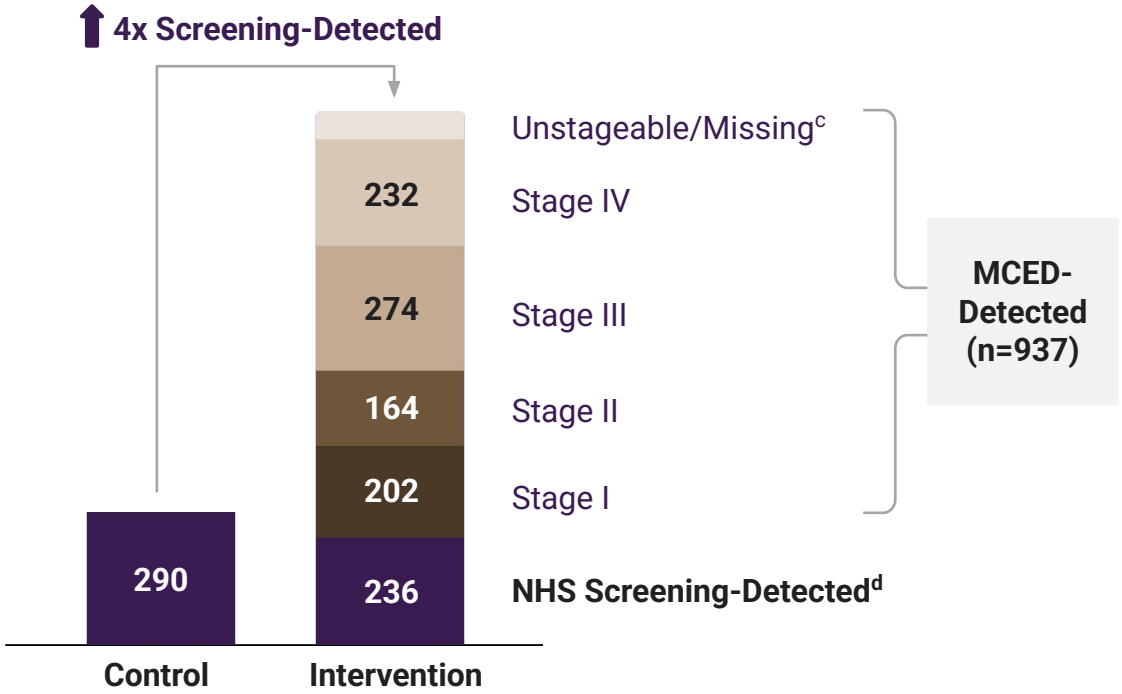
# Galleri Quadrupled the Number of Screening-Detected Cancers[1]




LDCT, Low-Dose Computed Tomography; MCED, multi-cancer early detection; NHS, National Health Service.
[a]Includes 10 unstageable cancers (no staging system exists) and 55 cancers with missing stage information. [b]Breast, colorectal, cervical, and lung (for high-risk individuals) cancer. [c]73% if LDCT is not considered as a screening programme. LDCT screening was being initiated as a national screening programme during the trial.[2]

1. Swanton C, et al. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA. 2. GRAIL, Inc. Data on File GR-2026-0280: NHS-Galleri Supplemental

# Galleri Reduced Clinically-Detected Cancers by 21%[a] and Emergency-Presentation Diagnoses by 25%[b]

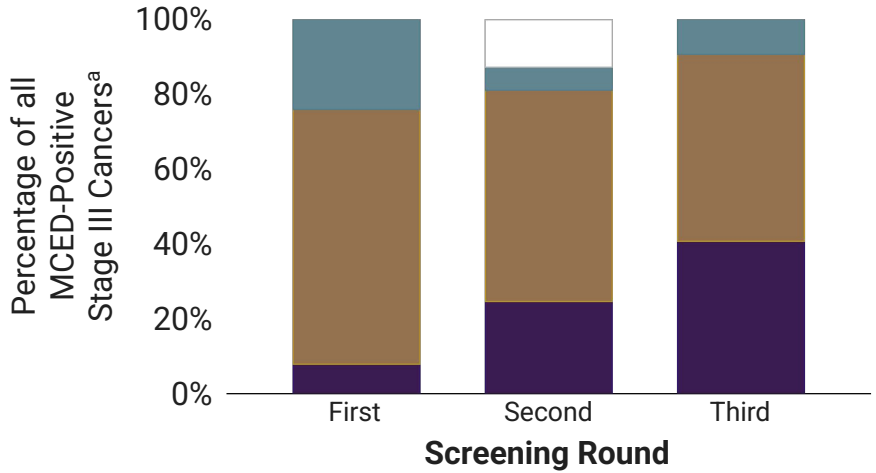



- 21% (3110 [C] v 2464 [I]) reduction in clinically-detected cancers[a]
- 25% (286 [C] v 213 [I]) reduction in cancers diagnosed through emergency presentation[b]

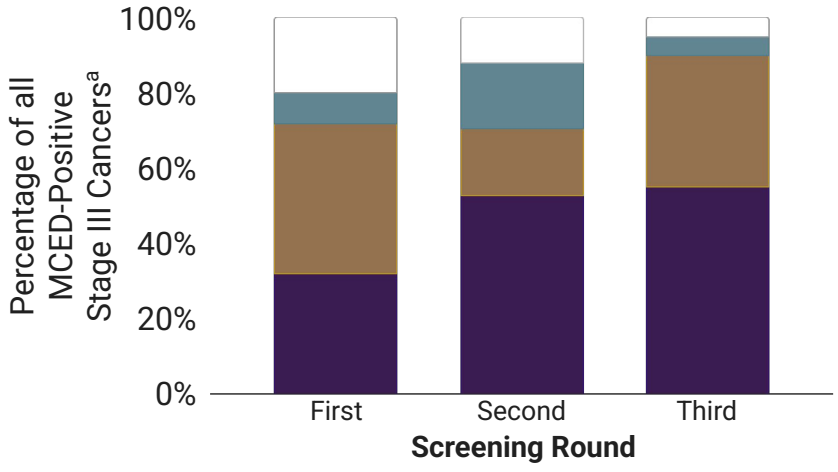
C, control arm; I, intervention arm; MCED, multi-cancer early detection; NHS, National Health Service.
[a]Clinical detection included cancers classified as being diagnosed in urgent cancer referral, emergency presentation, General Practitioner referral, and other (outpatient, inpatient elective, death certificate only, unknown, missing). [b]This estimate is a supportive sensitivity analysis after targeted review of 39 participants with an MCED-positive result and Emergency Presentation route to diagnosis. Of these, 12 had documented evidence against Emergency Presentation and were no longer classified as Emergency Presentation in this analysis; all randomized participants were included.
[c]Includes 10 unstageable cancers (no staging system exists) and 55 cancers with missing stage information. [d]Breast, colorectal, cervical, and lung (for high-risk individuals) cancer.
Swanton C, et al. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA.

# Exploratory Observations of Intra-stage Shift in MCED-Detected Cancers

## Colon/Rectum Cancers




## Lung Cancers



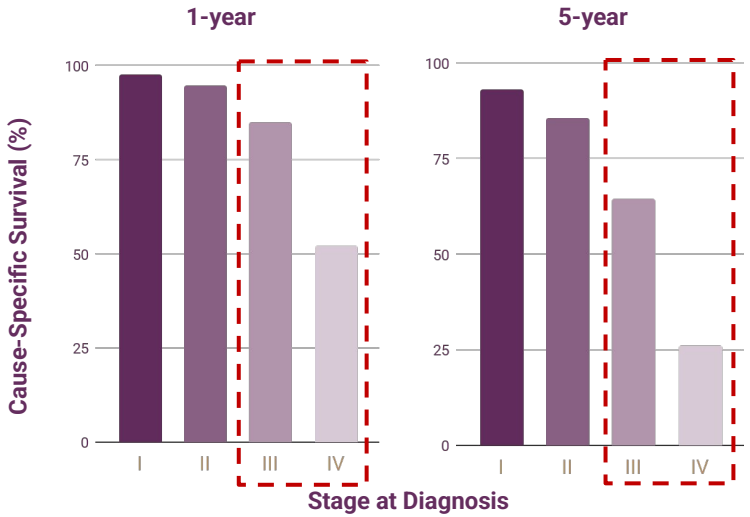

| | Stage IIIa | Stage IIIb | Stage IIIc | Missing | Stage IIIa | Stage IIIb | Stage IIIc | Missing |
|---|---|---|---|---|---|---|---|---|
| **SEER 5-year cancer-specific survival by substage[b]** | 89% | 80% | 55% | | 41% | 30% | 20% | |

[a]Counts are not shown to avoid reporting n<3, which would violate privacy rules [b]For colorectal, data is presented across the 4 UICC staging systems; Colon/Rectum, Appendix - Carcinoma, Neuroendocrine Tumors of the Appendix, Neuroendocrine Tumors of the Colon and Rectum.
GRAIL, Inc. Data on File GR-2026-0280: NHS-Galleri Supplemental

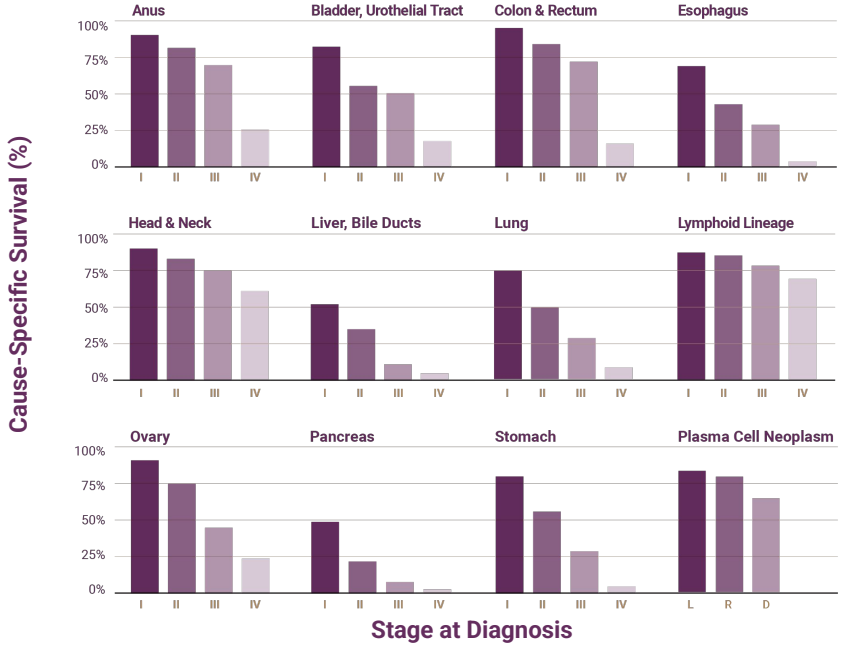
US-GA-2600181-1

# A “Survival Cliff”: Dramatic Stage III Survival Improvement Versus Stage IV for Select Cancer Types from SEER

## Survival for all cancer types




## 5-year survival for 12 pre-specified deadly cancers




L, local. R, regional. D, distant.
SEER Research Database, 17 Registries, Nov 2024 Sub (2000-2022). Diagnosed 2016-2017, follow-up through 2022. LRD and staged cancer rates. [GRAIL, Inc. Data on file: GR-2026-0267]

# Conclusions: Adding Galleri to Standard of Care Screening Shifts Cancer Detection to Earlier Stages[1a]

## Clinical Utility

- Primary endpoint (stage III/IV reduction) not met
- For pre-specified secondary endpoints, observed a **>20% reduction** in stage IV cancers[b] in incident rounds and a **16% increase** in cancers[b] detected at stage I-II across 3 screening rounds

## Safety and Performance

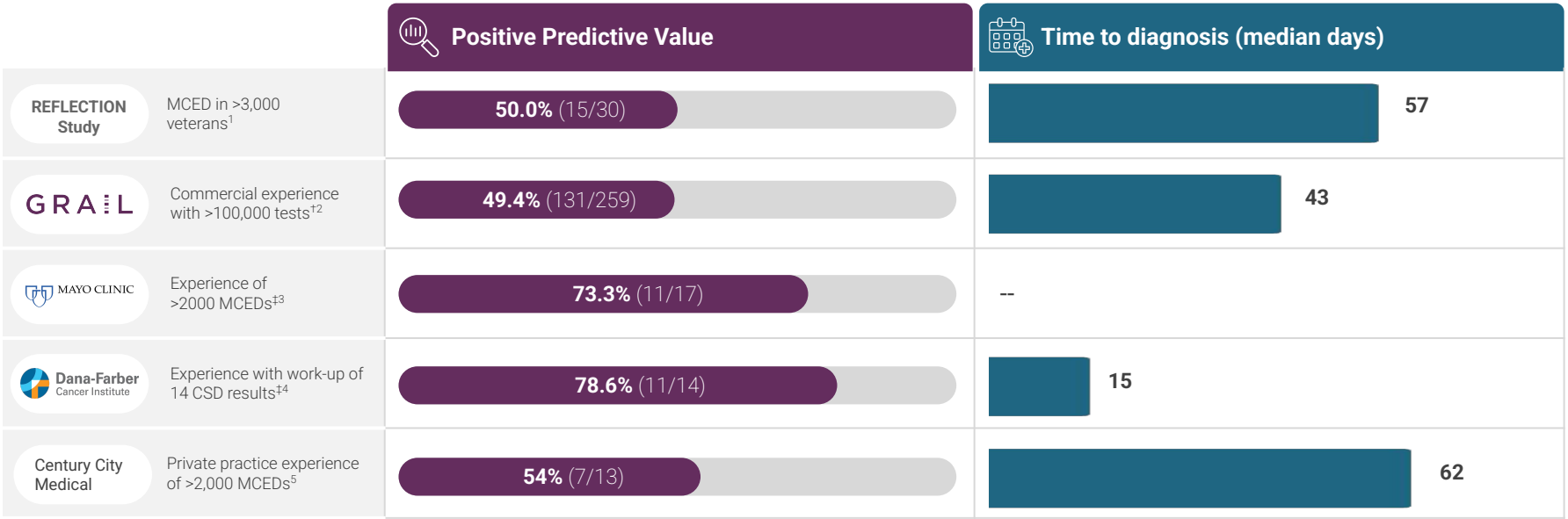
Demonstrated safety, PPV of **52%, and specificity of 99.55%** after 3 screening rounds, consistent with previous studies[2,3], in a large randomized controlled trial across 3 screening rounds in an NHS population

## Routes to Diagnosis

- **4-fold increase** in screen-detected cancers
- **25% reduction** after 3 screening rounds in cancers detected through emergency presentation

[a]A statistically significant reduction was not observed in combined stage III–IV diagnoses across three screening rounds for the prespecified group of 12 deadly cancers.
[b]Among group of 12 prespecified cancer types.
MCED, multi-cancer early detection; NHS, National Health Service; PPV, positive predictive value.
1. Swanton C, et al. Oral Presentation at American Society of Clinical Oncology (ASCO). May 29-June 2. 2026; Chicago, IL, USA. 2. Schrag D, et al. *Lancet*. 2023;402(10409):1251-1260. 3. Nabavizadeh N, et al. Presentation at European Society for Medical Oncology Congress. October 17-21. 2025; Berlin, Germany.

# Real-World Data Supports Performance and Feasibility




†ePPV is the cancer diagnosis rate in the population of patients who had a positive MCED test, completed workup, and follow-up information reported by a healthcare provider. ‡These analyses were conducted independent of GRAIL, specific patient characteristics are unknown, performance may not reflect real-world performance in other health systems or clinics.

1. Atwood C, et al. Presented at EDCC. October 21-23, 2025. Portland, OR. 2. Matrana, M, et al. Real-world data and clinical experience from over 100,000 multi-cancer early detection tests. Nat Commun 16, 9625 (2025). 3. Hurt RT, et al. J Prim Care Community Health. 2025;16:21501319251329290. 4. O'Donnell, Elizabeth K et al. "Diagnostic Outcomes Among Patients with Positive Multi-Cancer Early Detection Test Results." Cancer research communications, 10.1158/2767-9764.CRC-25-0723. 20 Feb. 2026. 5. Sue, Eric, et al, Implementation of a multi-cancer early detection (MCED) test in a private practice: Adoption, performance, and repeat-testing patterns.". American Society of Clinical Oncology Annual Meeting; 2026 May 29-June 2.

# Overall Conclusions

Across 177,000 participants in GRAIL's population-scale clinical program, including the first and largest randomized controlled trial of an MCED

## First demonstration of clinical utility through stage shift

**>20%**
reduction in stage IV cancers after the first screening year

**Increase**
in stages I and II cancers

**25%**
fewer cancers were diagnosed after emergency presentation

## Galleri detected substantially more cancers versus standard of care screening alone

**4x - 6.5x**
the number of cancers detected when added to standard-of-care screening, including many deadly cancers without existing screening options

## Consistently high performance that enables confident, real-world use


**PPV**
PPV in the first screening year


**False positive rate**

**Consistent results**
across studies

## Actionable results that drive efficient, patient-centered care

**~90% or higher**
cancer signal origin prediction enables rapid, directed diagnostic resolution

**Minimizes**
unnecessary workups while maintaining a strong safety profile

**Supports**
efficient, patient-centered care

# Thank You and Questions



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