

Supplementary information

Clinical implementation of multi-cancer early detection tests: can we find a path forward?

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Supplementary Table 1 | Key characteristics of selected clinical studies evaluating MCED tests

Study	Sponsor	MCED test (company)	Design	Number of participants	Eligible age	Median age (IQR)	Primary outcome	Testing; follow-up	Results	Status
CCGA (NCT02889978)	GRAIL, Inc.	Galleri (GRAIL)	Prospective, case-control, observational study	15,254 symptomatic; 4,077 analysable (2,823 with cancer)	≥20 years	62.0 (52.0–69.0) years	Validate an MCED screening test	1 blood sample; 5 years	Sensitivity: 51.5% Specificity: 99.5% PPV: 44.4%	Published ¹
SYMPLIFY (ISRCTN10226380)	University of Oxford	Galleri (GRAIL)	Prospective, observational study	6,238 symptomatic; 5,461 analysable	≥18 years	61.9 (53.4–73.0) years	Diagnostic performance	1 blood sample; ≤9 months	Sensitivity: 66.3% Specificity: 98.4% PPV: 75.5%	Published ²
PATHFINDER (NCT04241796)	GRAIL, Inc.	Galleri (GRAIL)	Prospective, interventional study	6,662 asymptomatic; 6,621 analysable	≥50 years	63.0 (56.0–70.0) years	Time to diagnostic resolution; extent of testing	1 blood sample; 1 year	Sensitivity: 29% Specificity: 99.1% PPV: 38%	Published ^{3,4}
PATHFINDER 2 (NCT05155605)	GRAIL, Inc.	Galleri (GRAIL)	Prospective, interventional study	35,878 asymptomatic; 23,161 analysable	≥50 years	65.0 (59.0–71.0) years	Safety and diagnostic performance	1 blood sample; 3 years	Episode sensitivity: 40.4% Specificity: 99.6% PPV: 61.6%	Results reported (ESMO, 2025) ⁵ ; pending publication
NHS-Galleri (NCT05611632)	GRAIL, Inc. and NHS England	Galleri (GRAIL)	Randomized controlled trial	142,000 asymptomatic	50–77 years	NA	Reduction in stage III–IV cancers	3 blood samples (annual); 3 years	Primary end point not met	Press release ⁶ ; pending full publication
Vanguard Study (NCT06995898)	NCI	Avantect (ClearNote Health) and Shield (Guardant Health)	Randomized controlled trial	24,000 asymptomatic	45–75 years	NA	Feasibility (recruitment, adherence, representativeness)	2 blood samples (annual); 10 years	NA	Ongoing (expected 2029) ⁷

CCGA, Circulating Cell-free Genome Atlas; ESMO, European Society for Medical Oncology; IQR, interquartile range; MCED, multi-cancer early detection; NHS, National Health Service; NA, not available; NCI, US National Cancer Institute; PPV, positive predictive value.

Supplementary references

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6. NHS-Galleri Trial. <https://grail.com/press-releases/landmark-nhs-galleri-trial-demonstrates-a-substantial-reduction-in-stage-iv-cancer-diagnoses-increased-stage-i-and-ii-detection-of-deadly-cancers-and-four-fold-higher-cancer-detection-rate/> (accessed 22 April 2026).
7. NCI-Vanguard Study [NCT06995898] <https://Prevention.Cancer.Gov/Research-Areas/Networks-Consortia-Programs/Csm/Vanguard-Study> (Accessed 14 April 2026).