

Go further with cancer screening

by adding the Galleri[®] multi-cancer early detection (MCED) test



Firefighters are concerned about their risk of cancer



Work-related exposures could include:¹

- Protective equipment (exposure to PFAS)
- Night-shift work and extended hours
- Work-related stress
- Arsenic
- Asbestos
- Benzene
- Benzo[a]pyrene
- 1,3 Butadiene
- Cadmium
- Formaldehyde
- Radioactivity (gamma activity)
- Radionuclides (alpha-particle-emitting)
- Radionuclides (beta-particle-emitting)
- Silica (crystalline)
- Sulfuric acid
- 2,3,7,8-tetrachloro dibenzo-para-dioxin

Galleri has not been studied in individuals with known exposures to these carcinogens

¹ Firefighters and Cancer Risk, according to data from the American Cancer Society (ACS).

Associated Press. Firefighters fear the toxic chemicals in their gear could be contributing to cancer cases. September 2023.

Anderson DA, Harrison TR, Yang F, Wendorf Muhamad J, Morgan SE. Firefighter perceptions of cancer risk: Results of a qualitative study. Am J Ind Med. 2017 Jul;60(7):644-650. doi: 10.1002/ajim.22726. PMID: 28616888.



What
is known today



Where
Galleri can help



How
we can do it





What
is known today



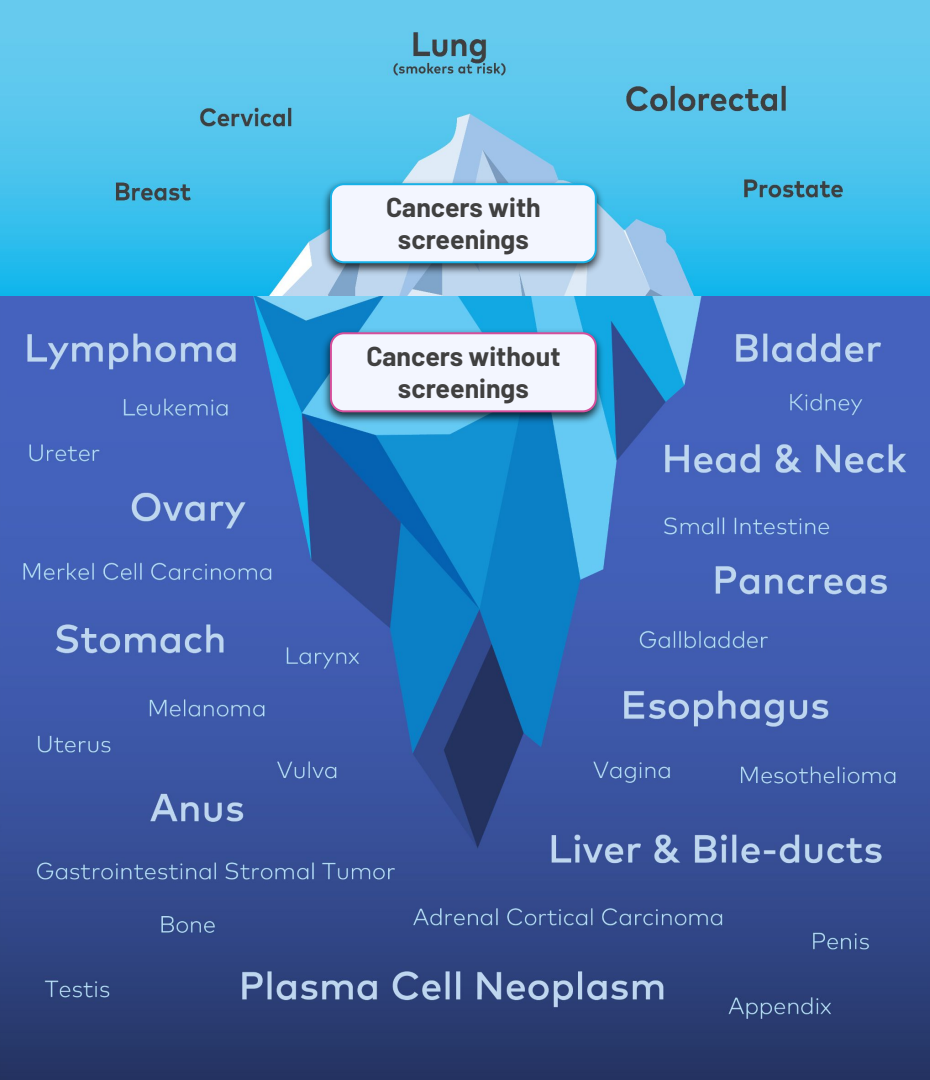
Where
Galleri can help



How
we can do it

*From the Surveillance, Epidemiology, and End Results (SEER),
the authoritative source for cancer statistics in the United States.*



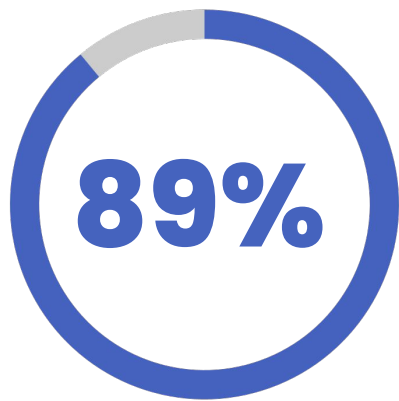


~70%
of cancer deaths are
caused by cancers with
no recommended
screening

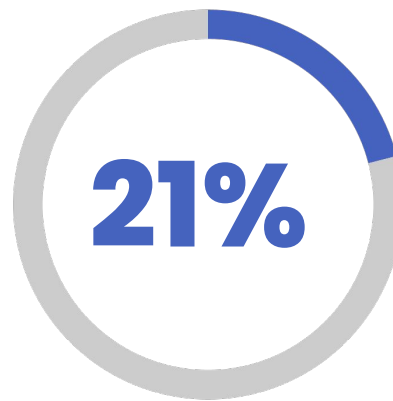
American Cancer Society Cancer Facts and Figures 2022. GRAIL, Inc. Data on file GA-2021-0065.
U.S. Preventive Services Task Force (USPSTF) grades A,B,C recommended cancer screening tests.

Cancer is often found too late, when survival rates are lower

5-year cancer-specific survival rates (all cancers¹)



**When Diagnosed
Early (Localized)**

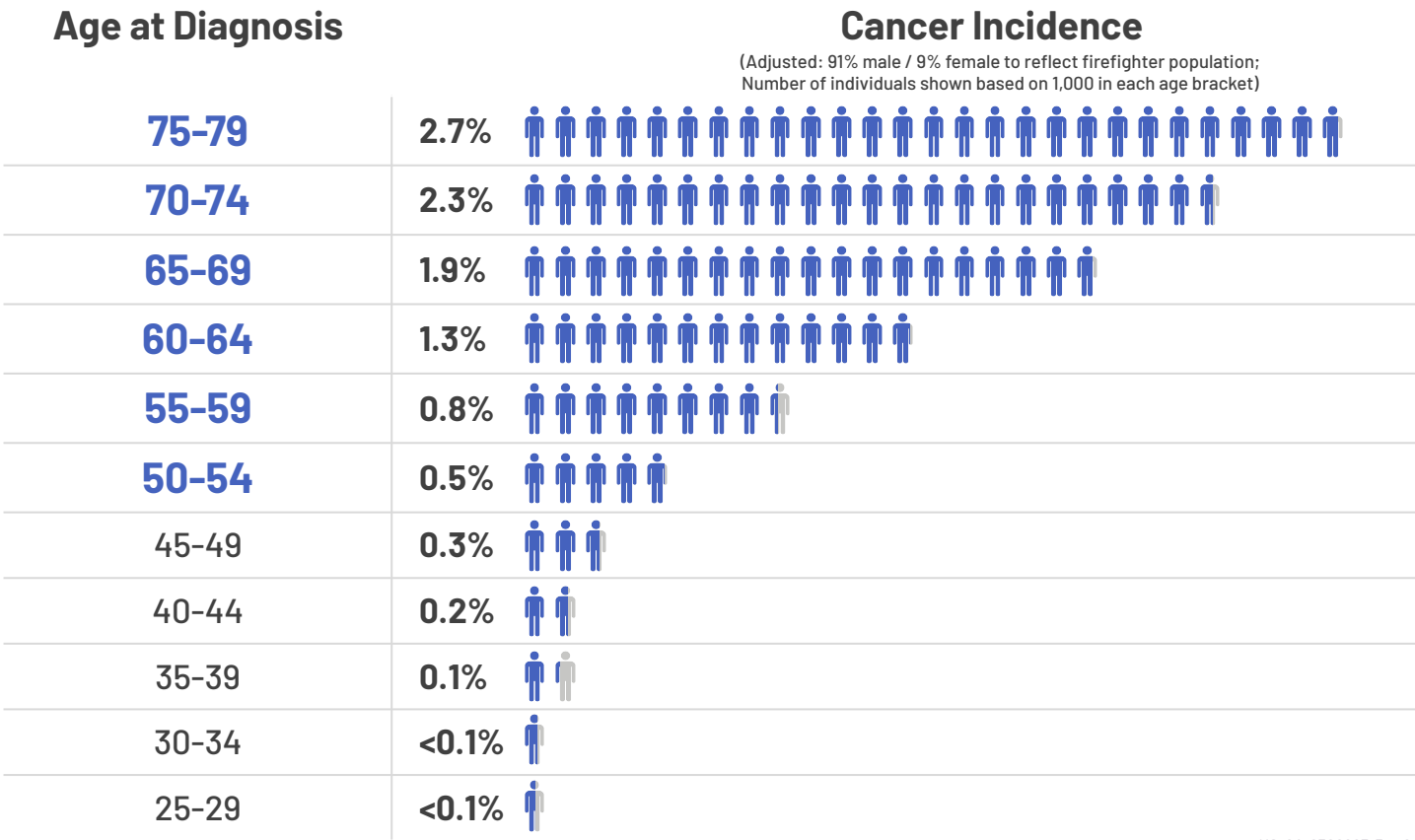


**When Diagnosed
Late (Metastasized)**

¹“Early/Localized” includes invasive localized tumors that have not spread beyond organ of origin, “Late/Metastasized” includes invasive cancers that have metastasized beyond the organ of origin to other parts of the body.



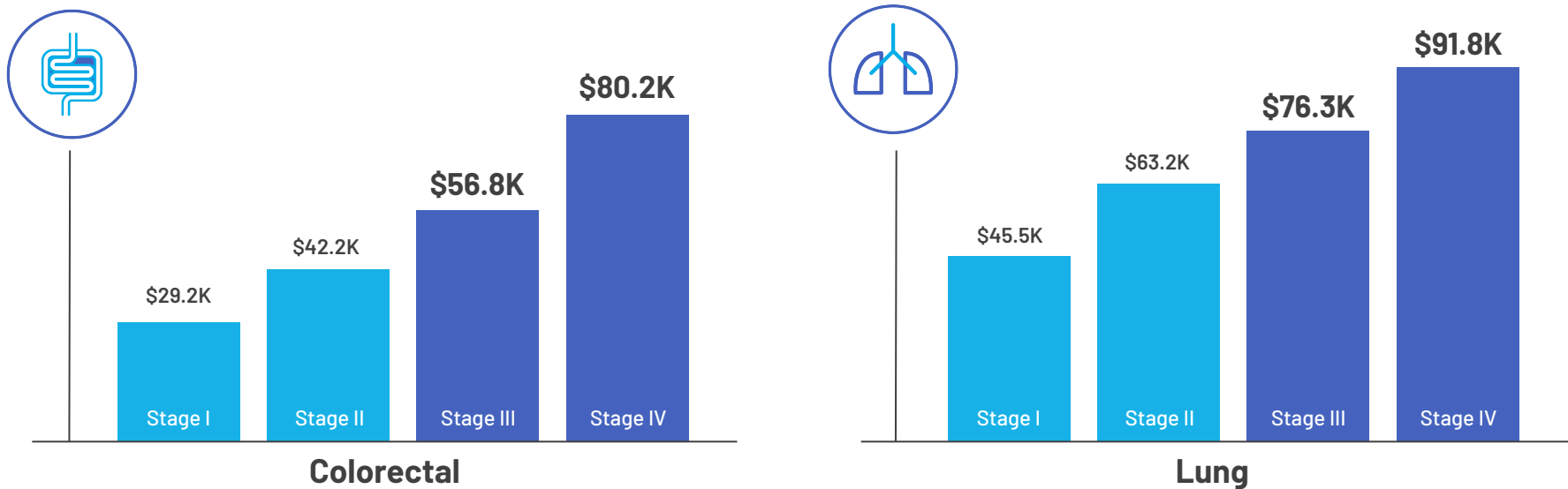
Age is the #1 cancer risk factor



All Cancer Sites Combined SEER Incidence Rates by Age at Diagnosis, 2017-2021 By Sex, Delay-adjusted SEER Incidence Rate, All Races / Ethnicities. Adjusted for firefighter population based on gender (91% male / 9% female). Data on File GR-2024-0225.

Cancer treatment costs more when diagnosed in later stages

Cost of Medical Care by Cancer and Stage^{1*} (Net Year 1)



*Estimates of net direct costs of medical care were calculated as total cost for cases minus total cost for controls, for year 1 by each cancer site, stage, and age <65 group.

Galleri helps screen for **more** aggressive cancers **early**, for **those at-risk**



What
is known today



Where
Galleri can help



How
we can do it

The Galleri test does not detect a signal for all cancers and not all cancers can be detected in the blood.
False positive and false negative results do occur.



Galleri is the only commercially available MCED test that is clinically validated and detects a signal associated with active cancer¹



GRAIL has and continues to conduct multiple studies with over 380,000 participants enrolled to-date as part of its clinical development program in the US and UK.*



Galleri was made commercially available in June 2021.

*These were not studies specific to the firefighter population

Validated Across a Large Network of Clinical Study Institutions



Memorial Sloan Kettering



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US-GA-2300293-3
CONFIDENTIAL & PROPRIETARY

¹ Klein EA, Richards D, Cohn A, et al. Clinical validation of a targeted methylation-based multi-cancer early detection test using an independent validation set. Ann Oncol. 2021 Sep;32(9):1167-77. Doi: 10.1016/j.annonc.2021.05.806

The Galleri test is being adopted by organizations nationwide

50+ Health Systems



80+ Employers



100+ Fire Departments



5+ Payers



8+ Life Insurers

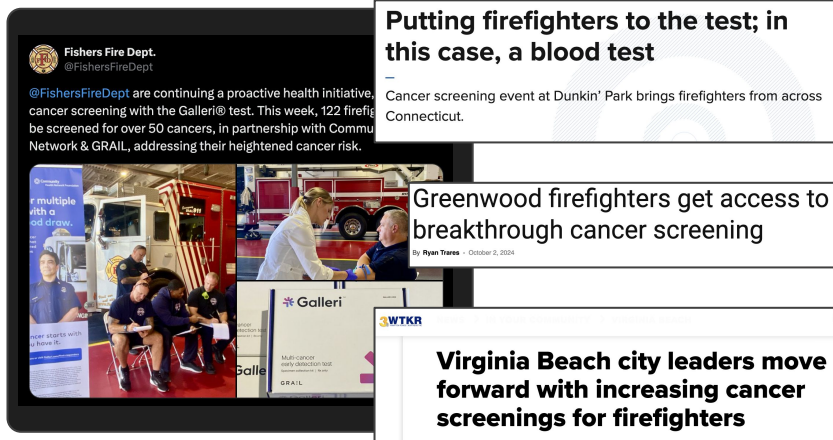


10 Distribution Partners



Fire departments across the country have added the Galleri test

20,000+ firefighters[^] tested in 110+ U.S. fire departments*



Organizational support



Adding the Galleri[®] multi-cancer early detection test can help strengthen your existing cancer screening strategy



- Screens for many aggressive cancers, before symptoms appear^{1,2,3}
- The more aggressive the cancer, the more likely Galleri is to detect it,² such as pancreatic, head & neck, colorectal, lung, and other cancers*
- A proactive blood test that can be done annually⁴ in addition to recommended screenings⁵

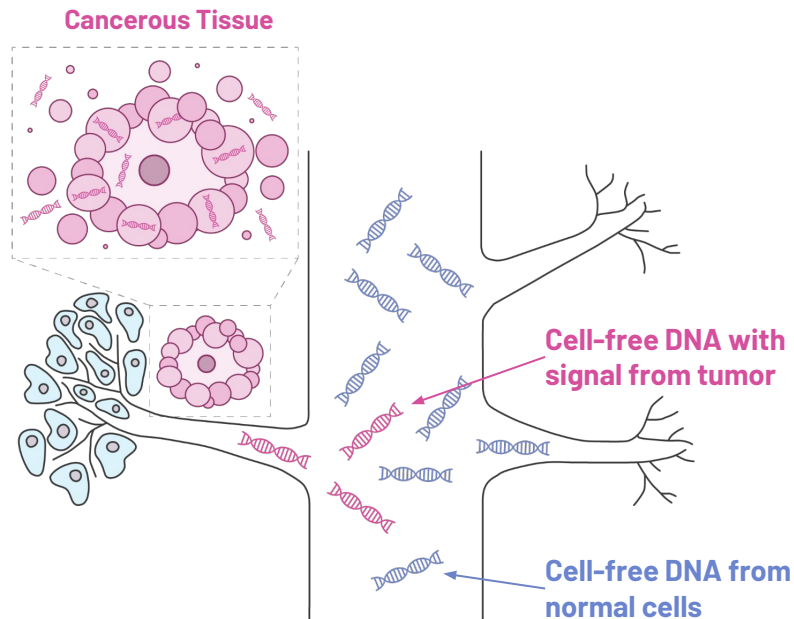
*Sensitivity in study participants — Pancreatic cancer: 83.7% overall (61.9% stage I, 60.0% stage II, 85.7% stage III, 95.9% stage IV); Head & neck cancers: 85.7% overall (63.2% for stage I, 82.4% stage II, 84.2% stage III, 96.0% stage IV); Colorectal cancer: 82.0% overall (43.3% for stage I, 85.0% stage II, 87.9% stage III, 95.3% stage IV); Lung cancer: 74.8% overall (21.9% for stage I, 79.5% stage II, 90.7% stage III, 95.2% stage IV).

The Galleri test is recommended for use in adults with an elevated risk for cancer, such as those aged 50 or older. The Galleri test does not detect a signal for all cancers and not all cancers can be detected in the blood. False positive and false negative results do occur. The Galleri test identifies DNA in the bloodstream shed by cancer cells and does not predict future genetic risk for cancer. Galleri is a screening test and does not diagnose cancer. Diagnostic testing is needed to confirm cancer. Galleri should be used in addition to healthcare provider recommended screening tests. Galleri is available by prescription only.

¹ American Cancer Society. Cancer facts & figures 2022. [GRAIL, LLC. Data on file: GA-2021-0065]. ² Klein EA, Richards D, Cohn A, et al. Clinical validation of a targeted methylation-based multi-cancer early detection test using an independent validation set. Ann Oncol. 2021 Sep;32(9):1167-77. doi: 10.1016/j.annonc.2021.05.806 ³ Schrag D, Beer TM, McDonnell CH, et al. Blood-based tests for multi-cancer early detection (PATHFINDER): a prospective cohort study. Lancet. 2023;402:1251-1260. doi: 10.1016/S0140-6736(23)01700-2. ⁴ Patel A. Methylated DNA biomarkers and incident cancer in the American Cancer Society (ACS) Cancer Prevention Study-3 (CPS-3) cohort. American Society of Clinical Oncology (ASCO) Annual Meeting; 2023 Jun 2-6. ⁵ US Preventive Services Task Force. A,B,C grade recommendations, cancer, screenings. [cited 2023 Oct 23].



Using machine learning and artificial intelligence, the Galleri test identifies DNA in the blood that is shed by cancer cells^{1,2}



Cancers growing in the body shed DNA into the bloodstream.^{1,3,4}



Galleri identifies DNA in the bloodstream shed by cancer cells.^{1,2}



Using artificial intelligence and machine learning, the Galleri test predicts the cancer's origin.^{5*}

The Galleri test does not detect a signal for all cancers, and not all cancers can be detected in the blood. False positive and false negative results do occur. The Galleri test looks for a signal associated with active cancer and does not predict future genetic risk for cancer. Galleri should be used in addition to healthcare provider recommended screening tests. Galleri is available by prescription only.

*"Cancer Signal Origin" (CSO) prediction accuracy was 93% for participants with a cancer diagnosis among study participants with Cancer Signal Detected test result.

¹ Klein EA, Richards D, Cohn A, et al. Clinical validation of a targeted methylation-based multi-cancer early detection test using an independent validation set. *Ann Oncol*. 2021 Sep;32(9):1167-77. doi: 10.1016/j.annonc.2021.05.806. ² Ofman JJ, Hall MP, Aravanis AM. GRAIL and the quest for earlier multi-cancer detection. *Nature Portfolio*. 2020 Mar 25. ³ Liu MC, Oxnard GR, Klein EA, et al. Sensitive and specific multi-cancer detection and localization using methylation signatures in cell-free DNA. *Ann Oncol*. 2020 Mar 30;31(6):745-59. doi: 10.1016/j.annonc.2020.02.011. ⁴ Thierry AR, El Messaoudi S, Gahan PB, et al. Origins, structures, and functions of circulating DNA in oncology. *Cancer Metastasis Rev*. 2016 Jul 8;35:347-76. doi:10.1007/s10555-016-9629-x. ⁵ Schrag D, Beer TM, McDonnell CH, et al. Blood-based tests for multi-cancer early detection (PATHFINDER): a prospective cohort study. *Lancet*. 2023;402:1251-1260. doi:10.1016/S0140-6736(23)01700-2.



Galleri adds to existing screenings to help screen for more fast-growing, deadly cancers



The 12 cancers responsible for
2 of 3 cancer deaths in the U.S.¹

Lung
(at risk individuals)

Stomach

Head & Neck

Cervical

Colorectal

Pancreas

Lymphoma

Bladder

Liver/Bile-duct

Ovary

Breast

Prostate

Plasma Cell Neoplasm

Esophagus

Anus



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The Galleri test is supported by robust clinical data

Dependable

0.5%

False positive rate¹

(found in study participants without cancer)

Impactful

76%

Sensitivity¹

(in cancers responsible for 2 of 3 US cancer deaths. ^{3, 4} Overall test sensitivity was 51.5%)

Actionable

93%

Location accuracy²

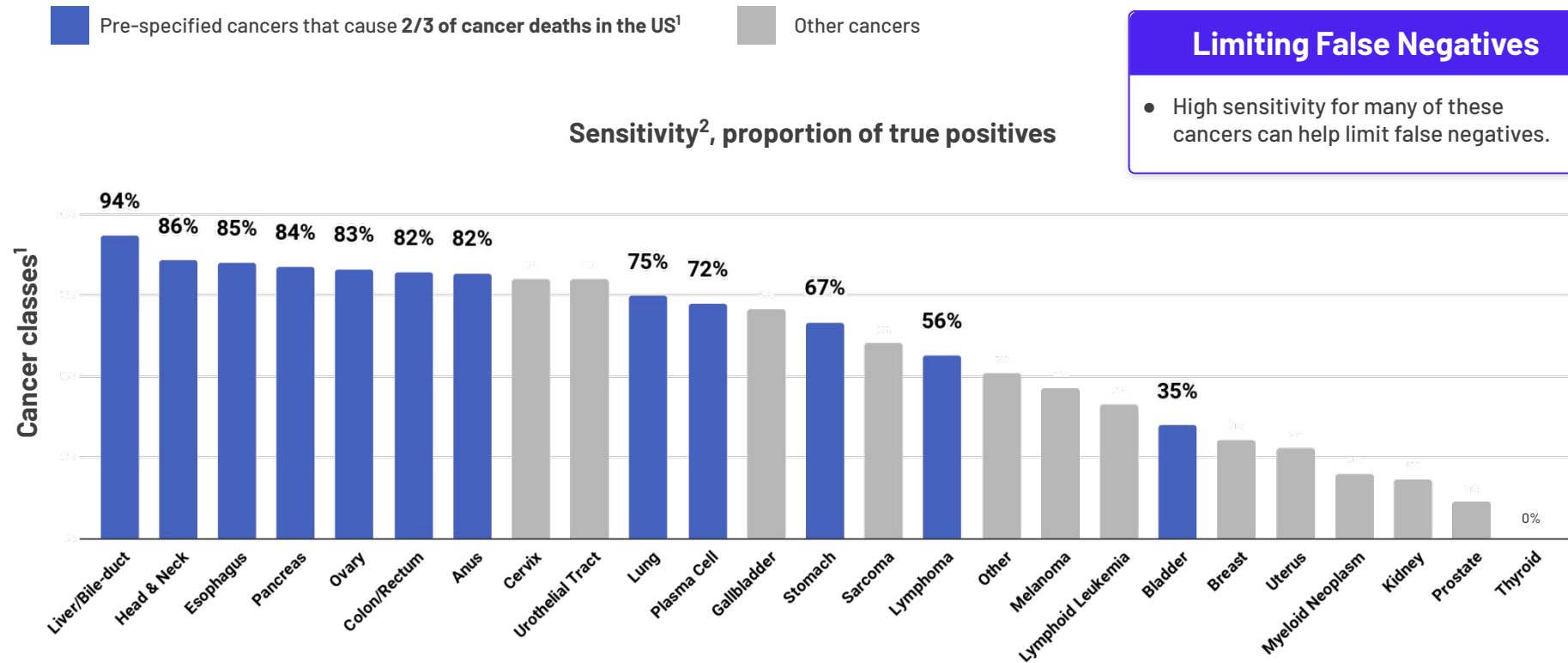
(in predicting cancer signal origin, found in study participants with cancer)

The Galleri test does not detect a signal for all cancers and not all cancers can be detected in the blood. False positive and false negative results do occur.

*The group of cancers responsible for two-thirds of annual US cancer deaths included anus, bladder, colon/rectum, esophagus, head and neck, liver/bile-duct, lung, lymphoma, ovary, pancreas, plasma cell neoplasm, and stomach.



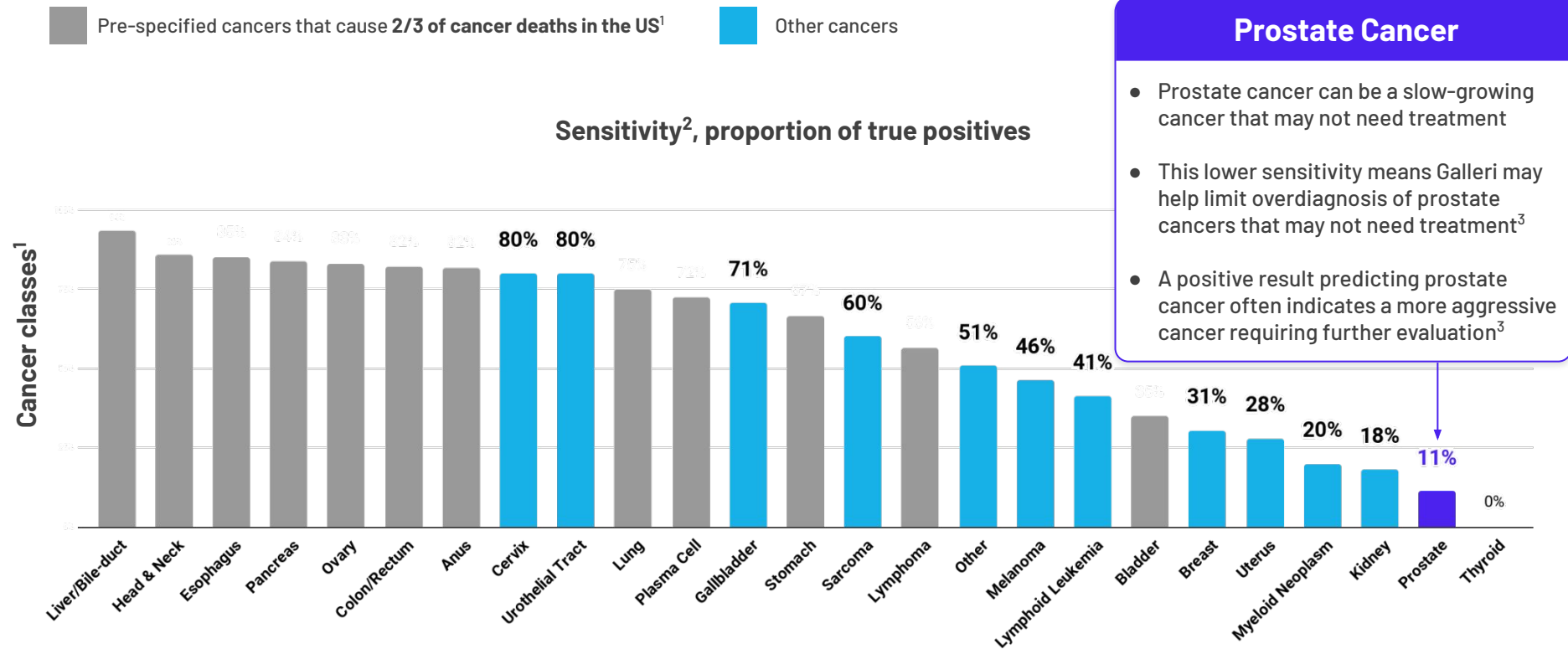
Galleri generally has higher *sensitivity* for deadlier, often fast-growing cancers (*sensitivity* = correctly identifying patients with cancer)



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¹ U.S. Mortality Data 1969-2016 (www.seer.cancer.gov); based on 2015-2016. American Cancer Society. Cancer Facts & Figures 2021.
² Klein E. et al. Ann Oncol. 2021;32(9):1167-77.

Galleri generally has lower sensitivity for less deadly, often slow-growing cancers (sensitivity = correctly identifying patients with cancer)



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Galleri's strong positive predictive value (PPV) reflects targeting *many cancers*, which adds to existing screenings targeting *single cancers*

Screening goal

PPV

The proportion of individuals diagnosed with cancer after a "Cancer Signal Detected" result



Mammography

Help identify as many **breast cancers** as possible

4.4%¹

Most women with an abnormal mammogram are not diagnosed with breast cancer



Galleri test

Help identify as **many fast-growing, deadly cancers** as possible

43%²

Almost half of individuals with a "Cancer Signal Detected" from Galleri will be diagnosed with cancer

Note: There are various reasons these PPVs are not in competition with one another. For example, each year there are significantly higher rates of *all people* being diagnosed with *some cancer* (1% incidence age 50-70) vs. *women* being diagnosed with *breast cancer* (0.32% women aged 50-70).³ There have been no head-to-head clinical studies comparing Galleri to mammography.

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Given age is the primary risk factor for cancer, Galleri is most likely to detect a cancer signal in older firefighters

Age <50



~2

Cancer signal detected
result per **1,000**
firefighters screened

Age 50–64



~4

Cancer signal detected
result per **1,000**
firefighters screened

Age >65



~18

CSD results per **1,000**
Firefighters Screened

From GRAIL's experience with >13,000 firefighters. Cancer Signal Detected % for each group: Age <50 years = 0.2%, Age 50–64 years = 0.4%, Age 65+ years = 1.8%. Data on File: GA-2023-0119.
While individuals ages 40–49 with certain risk factors may be at an elevated risk for cancer, Galleri was only studied in a population age 50 and older.

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What
is known today



Where
Galleri can help



How
we can do it



The Galleri test is part of a comprehensive experience, often administered through an on-site blood draw event

Workflow



1 Request the test

Galleri is by prescription only. If appropriate, your test will be approved by a healthcare provider.



2 Blood draw

Your sample will be collected at a blood draw event at your location, through your provider, or through a GRAIL-partnered reference lab



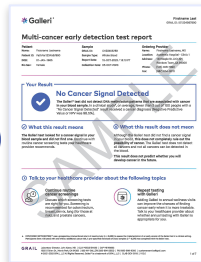
3 Test results

~ 2-3 week*
turnaround time

Test report delivered to ordering clinician

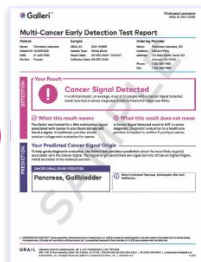
Provider discusses results with patient

POSSIBLE RESULTS:



No Cancer Signal Detected

CONTINUE ROUTINE CARE
Recommended screening +
consider annual Galleri testing

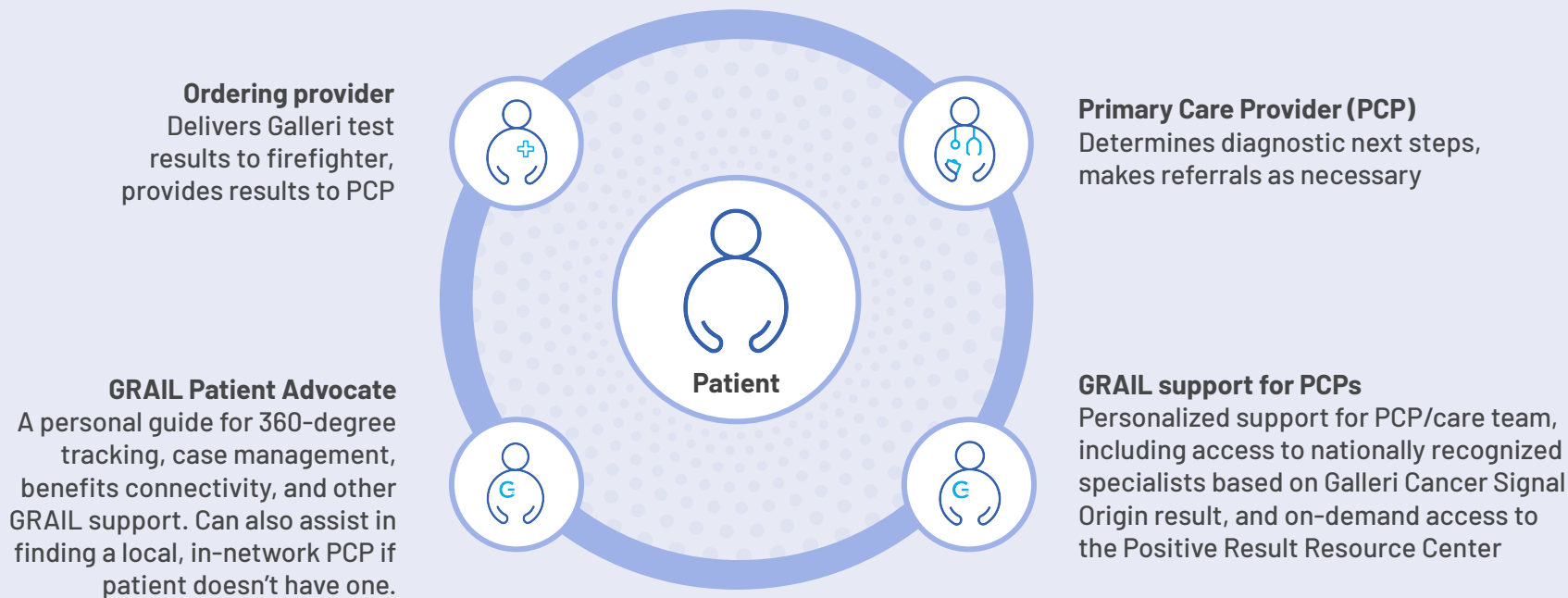


Cancer Signal Detected + Top Predicted Cancer Signal Origin

EVALUATION FOR CANCER
Diagnostic work-up is needed to
confirm cancer

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Personalized, integrated support for every “Cancer Signal Detected” result



There is no upfront investment or implementation fee

Cost of Test

For Firefighters: \$649
(list price \$949)

(billable only if test results are returned)



Post-Test Services to Support Diagnostic Journey

Included

- Patient Advocate: 360-degree tracking, support, & case management
- PCP peer-to-peer clinical support with independent, nationally recognized specialists
- Early Cancer Detection Board for complex cases

Implementation & Client Support Services

Included

- Department communications
- Landing page and online ordering configuration (if necessary)
- Reporting + Account management



Next steps

- Discuss funding options
- Discuss implementation
- Learn more about blood draw events



Important Safety Information

The Galleri test is recommended for use in adults with an elevated risk for cancer, such as those aged 50 or older. The Galleri test does not detect all cancers and should be used in addition to routine cancer screening tests recommended by a healthcare provider. Galleri is intended to detect cancer signals and predict where in the body the cancer signal is located. Use of Galleri is not recommended in individuals who are pregnant, 21 years old or younger, or undergoing active cancer treatment.

Results should be interpreted by a healthcare provider in the context of medical history, clinical signs and symptoms. A test result of No Cancer Signal Detected does not rule out cancer. A test result of Cancer Signal Detected requires confirmatory diagnostic evaluation by medically established procedures (e.g. imaging) to confirm cancer.

If cancer is not confirmed with further testing, it could mean that cancer is not present or testing was insufficient to detect cancer, including due to the cancer being located in a different part of the body. False-positive (a cancer signal detected when cancer is not present) and false-negative (a cancer signal not detected when cancer is present) test results do occur. **Rx only.**

Laboratory / Test Information

The GRAIL clinical laboratory is certified under the Clinical Laboratory Improvement Amendments of 1988 (CLIA) and accredited by the College of American Pathologists. The Galleri test was developed and its performance characteristics were determined by GRAIL. The Galleri test has not been cleared or approved by the Food and Drug Administration. The GRAIL clinical laboratory is regulated under CLIA to perform high-complexity testing. The Galleri test is intended for clinical purposes.



Thank you

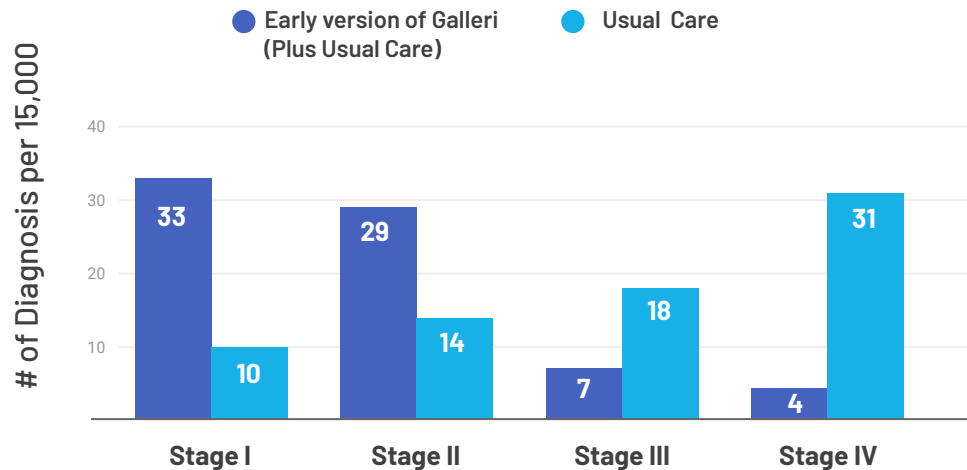
Appendix



Detailed Information on
Stage Shift & Cancer Costs



When added to usual care, the Galleri test has the potential to shift cancer signal detection to earlier stages, based on modeled data¹



Modeled data shows that adding the Galleri test to usual care could result in a:

- **50% reduction** in the proportion of cases diagnosed in Stage III and Stage IV¹
- **26% reduction** in 5-year cancer-related mortality¹

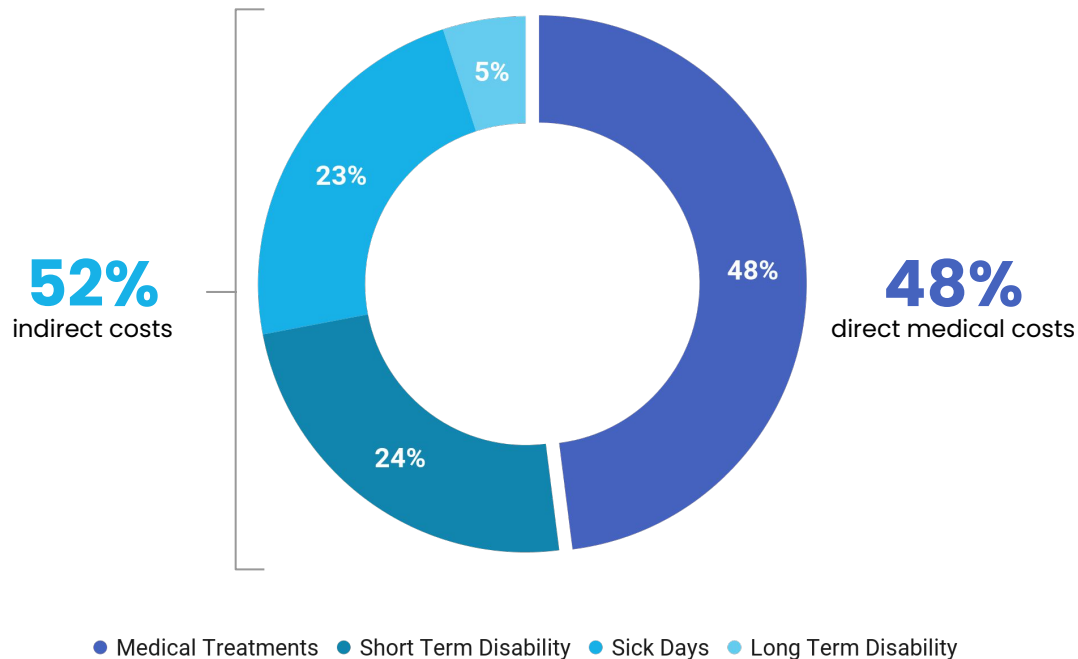
Modeling allows for assessment of the potential impact of adding Galleri to usual care on patient outcome and cost of treatment.

The Galleri test does not detect a signal for all cancers and not all cancers can be detected in the blood. False positive and false negative results do occur.

Late stage defined as stages III + IV. MCD results based upon fast tumor growth model. Usual care represents real-world cancer diagnostic processes (e.g., screening, incidental detection, symptomatic workup) as captured by SEER. Results based on performance data from Liu, et al. Ann Oncol. 2020 modeled with stage-specific incidence and survival of all invasive cancers diagnosed in persons aged 50–79 between 2006 and 2015 from the US Surveillance, Epidemiology, and End Results (SEER) program. Performance of MCD test in a state-transition model (interception model) when added to usual care. Usual care includes screening, incidental detection, and symptomatic workup. Assumes long-term screening results with optimized screening interval.



Although medical costs from cancer are significant (48%), indirect cancer-related costs are even higher (52%)^{1,2}



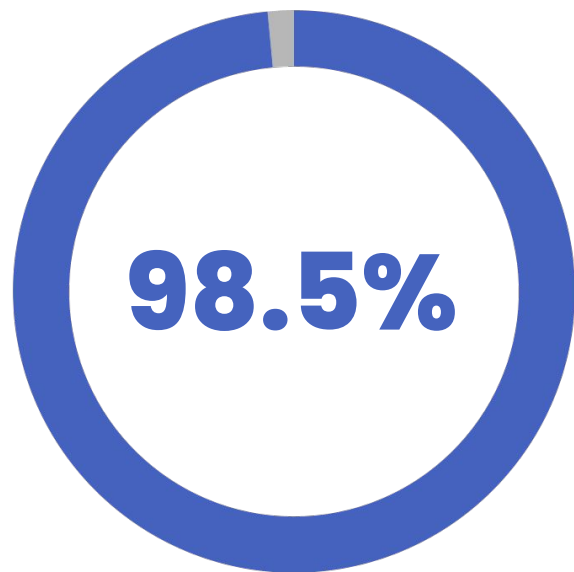
Cancer treatment impacts indirect costs and productivity due to:

- Time off work for treatments, clinic visits, and manage side effects
- Fatigue and decreased physical and/or cognitive functioning³

Detailed Information on
The Galleri Test
Performance & Technology



Galleri is highly accurate in confirming no cancer is present



(Negative Predictive Value)

of individuals with a No Cancer Signal Detected result did not have cancer (in a clinical study)¹

That means that less than 2% of individuals with a No Cancer Signal Detected result had cancer (received a cancer diagnosis)¹

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Galleri detected a signal shared across 50+ cancer types in clinical studies – including 45 cancer types without recommended screening

| Breast | Cervical | Colorectal | Lung | Prostate |
|-------------------------------------|---|------------|---|----------|
| Adrenal Cortical Carcinoma | Liver | | Plasma Cell Myeloma and Plasma Cell Disorders | |
| Ampulla of Vater | Lymphoma (Hodgkin and Non-Hodgkin) | | Small Intestine | |
| Anus | Melanoma of the Skin | | Soft Tissue Sarcoma of the Abdomen and Thoracic Visceral Organs | |
| Appendix, Carcinoma | Merkel Cell Carcinoma | | Soft Tissue Sarcoma of the Head and Neck | |
| Bile Ducts, Distal | Mesothelioma, Malignant Pleural | | Soft Tissue Sarcoma of the Retroperitoneum | |
| Bile Ducts, Intrahepatic | Nasal Cavity and Paranasal Sinuses | | Soft Tissue Sarcoma of the Trunk and Extremities | |
| Bile Ducts, Perihilar | Nasopharynx | | Soft Tissue Sarcoma Unusual Histologies and Sites | |
| Bladder, Urinary | Neuroendocrine Tumors of the Appendix | | Stomach | |
| Bone | Neuroendocrine Tumors of the Colon and Rectum | | Testis | |
| Esophagus and | Neuroendocrine Tumors of the Pancreas | | Ureter, Renal Pelvis | |
| Esophagogastric Junction | Oral Cavity | | Uterus, Carcinoma and Carcinosarcoma | |
| Gallbladder | Oropharynx (HPV-Mediated, p16+) | | Uterus, Sarcoma | |
| Gastrointestinal Stromal Tumor | Oropharynx (p16-) and Hypopharynx | | Vagina | |
| Gestational Trophoblastic Neoplasms | Ovary, Fallopian Tube and Primary Peritoneum | | Vulva | |
| Kidney | Pancreas, exocrine | | | |
| Larynx | Penis | | | |
| Leukemia | | | | |

Galleri does not detect all cancers and all cancers cannot be detected in the blood.

<https://www.galleri.com/the-galleri-test/types-of-cancer-detected>

Klein E, Richards D, Cohn A, et al. Clinical validation of a targeted methylation-based multi-cancer early detection test using an independent validation set. Ann Oncol. 2021;32(9):1167 – 1177.

Amin MB, Edge S, Greene F, et al. (Eds.). AJCC Cancer Staging Manual (8th edition). Springer International Publishing: American Joint Commission on Cancer; 2017



Detailed Information on **Post-positive Support**



The GRAIL Patient Advocate supports the patient throughout their “Cancer Signal Detected” journey

PCP Referral

- Assist patient in finding a local, in-network PCP if they don't have one.

Issue Identification & Support

- In collaboration with ordering provider, assess risk of patient not getting diagnostic workup. Provide or point to resources that mitigate the risk and support the patient.
- As appropriate, outreach to the patient to understand barriers, unmet needs &/or questions.

Benefits Connectivity

- As appropriate, connect patient to employer-specific benefits and resources (e.g. Clinical Support Services providers)
- As appropriate, connect patient to local programs and resources.

Continuity of Care / Payer Coverage

- If patient has health insurance, assist with questions about coverage for diagnostic tests.
- This may include contacting health insurance customer service and/or doing other research on the patient's coverage.

60 Day Check-In

- Outreach to patient 60 days after test result report was issued to confirm diagnostic tests were conducted, understand patient's status, and check if patient has questions, concerns, barriers, or unmet needs they would like to share
- As appropriate, provide or point to resources to support patient.

360-Degree Tracking & Case Management

- Track status and needs across Galleri test ecosystem (e.g. telemedicine ordering provider, Clinical Support Services partners, patient, PCP, etc.) and ensure appropriate information-sharing across parties so that we efficiently enable the “next best action” to support patients and providers in the diagnostic workup.

GRAIL offers support for the patient's PCP throughout the diagnostic workup after a "Cancer Signal Detected" result

LEVEL 1

Front line PCP Support

Galleri test overview, result explanation and diagnostic pathway support on a 1:1 basis from GRAIL Medical Science Liaisons (MSLs)

- Proactive outreach for every Cancer Signal Detected result
- 1:1 consultation
- Provide access to resources, including Clinical Care Considerations

LEVEL 2

Peer-to-peer consultation

Personalized 1:1 consultations with nationally recognized specialists based on the patient's predicted Cancer Signal Origin

- 1:1 review of clinical considerations and diagnostic care pathways based on guideline recommendations and widely accepted standards of care
- Coordinated by GRAIL MSLs

LEVEL 3

Early Cancer Detection Board

Multi-speciality consultation with selected nationally recognized specialists leveraging full patient medical history

- Leverages evidence and consensus-based information specific to the patient's needs and relevant history
- Limited to particularly complex cases
- Coordinated by GRAIL MSLs

