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Multi-Cancer Early Detection Testing (MCED)

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Limitations of Cancer Screening

Only five cancers have standard procedure-based screening recommendations: breast, colon, cervical, lung and prostate. However, screening guidelines, sensitivity, and low patient compliance can limit effectiveness.

In addition, 70% of diagnosed cancers are in sites without standard screening, such as kidney, liver, ovary, pancreas, stomach, small intestine, urothelial tract, and others. Patients identified with genetic and empiric high-risks, often have elevated risks of developing these difficult to screen cancers.

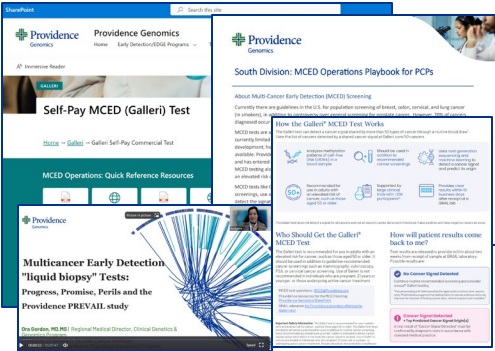
Multi-cancer early detection (MCED)

These blood tests are an emerging approach of detecting specific targeted cancers or a spectrum of more than 50+ types of cancers.

Using MCED testing alongside standard screening procedures is expected to improve early cancer detection for patients at an elevated risk of cancer.

MCED Program Tools & Resources

We have developed SharePoint, Physician Playbook, Info Sheets, Educational Webinars, EDCC, and Key Contacts



Multi-Cancer Early Detection Testing (MCED)

South Division Cancer Institute & Genomics Program

"Know me, care for me, ease my way."

We manifest the Providence Promise through providing access to cutting-edge breakthroughs in cancer screening to our patients across the South Division. We would like to be known as a leader in Cancer prevention, screening, early detection, and promote high-risk programs to serve as a broader scaled model across Providence.

South Division MCED Programmatic Development

Research for High-Risk Patient Populations

Galleri in Action (GIA) enrolled ~1300 in 2022-2023, GIA Rollover enrolled ~400 in 2023, PREVAIL Q1 2024

Early Detection Case Conference (EDCC)

EDCC provides a collaborative environment for MCED case presentations and shared learning

Primary Care Provider Patient Access

PCP has supported enrollment, assesses risk, orders test, gives results, and follows up (as needed)

Test Validated for:

- >22 years old
- Not pregnant
- Not undergoing current cancer treatment
- Not received allogenic BMT

General Risk Factors (age >50):

- AGE >50 **AND**
 - Smoking history > 10 pack years
 - Heavy alcohol use > 2 drinks a day
 - Chronic immunosuppression with biologics i.e., Humera or other agents not for cancer treatment, for >2 years & >50 years of age
 - New onset diabetes* (less than 3 years)
 - Solid organ transplant recipients
 - HIV +
 - Cirrhosis diagnosis
 - Active Hepatitis B or C
 - Inflammatory Bowel Disease/Crohn's Disease
 - Barret's Esophagus

Hereditary Risk Factors (>22 years old):

- Known deleterious germline mutations/ strong family history of cancer
- Personal history of cancer (3+ yrs survivorship)

PREVAIL Study Enrollment Criteria:

- **Inclusions:** Patient of Providence, St. Joseph Health, Swedish, or another health system within the Providence family of organizations + Carrier of any of the following genetic mutations; BRCA1, BRCA2, CHEK2, ATM, Lynch syndrome
- **Exclusions:** Undergoing active cancer treatment, Recently finished cancer treatment (within the past 12 months), Received a bone marrow transplant, Currently pregnant

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Early Detection Case Conference

We designed and launched the EDCC in 2022 to create a quorum and to provide an opportunity to present and discuss results by developing expert opinions on appropriate clinical follow up based existing genetic risk and/or the signal type detected, generating a robust "learning system" ready for MCED technology system-wide implementation.

Collaborative Innovation

The adoption of MCED supports high risk program development by offering our identified high risk patient populations opportunities for additional screening, while also engaging oncology programs and primary care in cutting edge services. To ensure continuity of care when a patient's test results indicate a "positive signal detected," the Providence Genomics Team works with providers to determine next steps, order appropriate diagnostic evaluation(s), and provide invitation to the patient's treatment team to present at EDCC.

The Impact of MCED Positive Signals

- 67 yo man with a 40-pack year smoking history had refused low-dose CT screening for years, was found to have multifocal lung cancer.
- 53 yo man was found to have an early lymphoid abnormality that preceded his cancer diagnosis by 6 months.

MCED testing is another pillar of the South Division Cancer Institute & Genomics Program for 2024, as we grow MCED in our high-risk clinics, personalized wellness clinics, and through our primary care partnerships this year, and beyond.