CANCER DATA REGISTRY OF IDAHO

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NPCR 2024 SUCCESS STORY

Using Cancer Registry Data to Improve Care for Idaho Women Diagnosed with Early-Stage Breast Cancers

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SUMMARY

The Cancer Data Registry of Idaho (CDRI) has served Idahoans since 1971 by characterizing cancer incidence, survival, risk factors, and clinical care in Idaho, where one in three people lives in a rural area. We wanted to understand how gene expression profile (GEP) testing for early-stage breast cancer recurrence may differ in Idaho's urban versus rural areas.

CHALLENGES

- All Idahoans diagnosed with cancer should receive the same guideline-concordant clinical care no matter where they live.
- Some patients with early-stage breast cancers will not benefit from adjuvant chemotherapy and may experience side effects from it.
- GEP testing can identify early-stage breast cancer patients who will benefit from adjuvant chemotherapy. Several clinical guidelines recommend GEP, but it may be used less often in rural areas.
- During 2018 to 2022, 7,229 malignant breast tumors were diagnosed among female Idahoans. Approximately eight in ten of these tumors were diagnosed at an early stage.
- Identifying receipt of GEP testing can be challenging in cancer registry data, and multiple data sources may be required.

SOLUTION

CDRI analyzed cancer registry data to understand:

1. If Idahoans with early-stage breast cancers received GEP testing.
2. If GEP testing differed by patient or hospital location (rural versus urban).

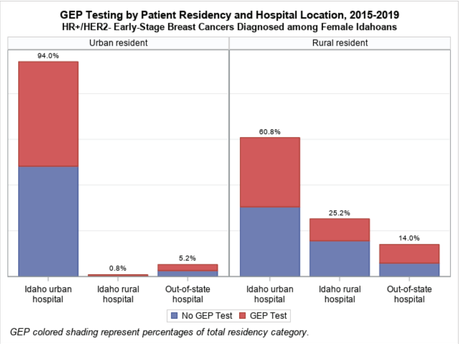
CDRI used free-text review, data linkage, and North American Association of Central Cancer Registries (NAACCR) standard data items to identify instances of GEP testing. The registry partnered with a physician champion to provide context to and help disseminate results.

RESULTS

During 2015 to 2019, 4,083 HR+/HER2- breast cancers were diagnosed among female Idahoans. Surgery for eight in ten tumors occurred in urban Idaho hospitals. Three in ten tumors were diagnosed among rural residents. Surgery for one in four rural residents occurred in a rural hospital, indicating that care may differ by place of patient residence.

There was no difference in GEP testing by rural versus urban residency (odds ratio [OR] = 1.04, 95% confidence interval [CI] = 0.89, 1.21). Rural Idaho hospitals were slightly less likely than urban hospitals to provide GEP testing (OR = 0.81, 95% CI = 0.63, 1.05). Out-of-state hospitals were slightly more likely to conduct GEP testing than urban Idaho hospitals (OR = 1.07, 95% CI = 0.83, 1.36). GEP testing was more likely in Idaho hospitals that were not accredited by the Commission on Cancer (CoC) than their CoC-accredited counterparts (OR = 1.35, 95% CI = 1.16, 1.57).

Where a patient received care was more predictive of GEP testing than if the patient lived in a rural versus urban area. CDRI shared this information with Idaho's Comprehensive Cancer Control Program and a physician champion at Idaho's largest health system to contextualize findings and identify communication strategies for hospital and physician outreach.



CONCLUDING REMARKS

CDRI will leverage existing partnerships with public health and clinical practitioners to share these results and encourage appropriate use of GEP testing for early-stage breast cancer and adjuvant chemotherapy in Idaho. For continued success, we will use our cancer surveillance data to monitor uptake in clinical practice guidelines as they change over time.

NATIONAL PROGRAM of CANCER REGISTRIES NPCR CANCER DATA DRIVING ACTION

U.S. Department of Health and Human Services
Centers for Disease Control and Prevention