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CanIMPACT: Understanding complexities, variation, and disparities in the breast cancer care continuum in Five Canadian provinces using administrative data

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Objective

CanIMPACT is a multi-province Canadian research team funded to understand the interplay between primary and oncology breast cancer care. A first step was to describe current practice and inter/intra-provincial care variation across the care continuum using provincial administrative health data. Here we describe the inter-provincial process and analysis plans.

Approach

Our multi-disciplinary team includes five Canadian provinces: British Columbia, Alberta, Manitoba, Ontario and Nova Scotia. Cohorts consist of all breast cancers diagnosed from 2007 to at least 2011 in each of the five provinces. Common databases include cancer registries, census area-level income and rurality, outpatient physician claims, ambulatory care and inpatient hospitalizations. Other databases with laboratory, pharmacy, emergency services, and immigration data were available in some provinces. Common data elements across provincial datasets were identified, and a standardized methodology was developed.

Results

Common data processing and analysis plans were finalized over 24 months; provinces refined details as per local context while maximizing methodological comparability. Basic descriptive analyses plus 18 phase-specific and 3 longitudinal analyses have

been planned. Six plans for the diagnostic phase focus on identifying modifiable disparities in access and outcomes; 8 plans for the treatment phase focus on variation in chemotherapy treatment patterns, quality/safety, and utilization of primary care services; 4 plans for the survivorship phase focus on adherence to guidelines for follow-up breast cancer care, other chronic diseases and preventive care; 3 longitudinal analyses assess factors related to changes in utilization of chronic disease services over the cancer care continuum.

Conclusion

We have shown it is feasible to develop and standardize data processing and analyses across multiple provinces to address important cancer care questions across the continuum. This work will inform comparisons and improvements in Canadian cancer care. This effort has also helped increase research capacity in health services research.

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