

Cancer pharmacogenomic testing, clinician adoption and patient benefit

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Background: Cancer pharmacogenomics (caPGx) evaluates the genomic profiles of individuals and their tumors to predict response to treatment, including the potential to select which treatment or dose may be more effective with the least adverse side effects. Understanding the factors that influence clinician adoption of caPGx tests is important to promote timely and equitable patient benefit.

Methods: Anonymous paper surveys, addressing oncologists perspective and knowledge of caPGx tests, factors influencing caPGx test adoption, and desire for PGx education, were distributed to oncologists in North Carolina, USA.

Results: Although 98% indicated that PGx holds great promise in guiding the treatment of cancer patients, only 33% were comfortable with their knowledge or interpretation of caPGx test results. When asked about factors influencing use of specific caPGx tests (Oncotype Dx test), 26% indicated they used the test because it was FDA approved. This is concerning because the test is NOT FDA approved, nor does it currently require FDA approval. Perhaps even more concerning was the selection by 5% of respondents of a mammogram or a complete blood count (CBC) being a PGx test. Ninety-one percent of respondents were interested in learning more about caPGx.

Summary: There is a desire and need for dissemination of accurate PGx information to oncologists in North Carolina. Development of tailored educational interventions should improve knowledge and use of caPGx tests to maximize opportunities for equitable patient benefit.

Biography

Lynn Dressler directs the Personalized Medicine program at Mission Health, a large tertiary care community hospital system in Western North Carolina. For 30 years, Dressler has worked in academic research, at the interface between the bench and bedside evaluating new markers to predict response to therapy. Her inter-disciplinary training spans translational research in pathology, oncology, health policy, bioethics and social science. During her 20 year tenure at the University of North Carolina, her laboratory conducted the research study that directly led to the FDA approval of the PathVysion™ HER2 FISH test, one of the first pharmacogenomics tests in breast cancer.

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