



# Partnerships with Academic Institutions to Improve Patient Outcomes Utilizing Technology for Women with Breast Cancer in the Ambulatory Setting

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## BACKGROUND

- Partnerships between academic institutions and ambulatory care clinics have existed traditionally for the of training health care professionals.
- Breast Cancer patients are seen frequently in the ambulatory setting and have diverse needs depending on their specific diagnosis, stage, and treatment resulting in the need for innovative care models. According to the American Cancer Society, symptoms and side effects are common issues among cancer patients leading to impaired quality of life and functioning. Patient Reported Outcomes (PRO) are useful and valued in measuring many of these aspects.
- Adjuvant endocrine therapies (AETs) are almost always prescribed to early stage breast cancer (BrCa) patients and have been shown to reduce risk of recurrence; however adherence is suboptimal due to symptom burden.
- PhDs from a local academic institution and a DNP professional from an ambulatory community cancer center collaborated to launch a clinical trial utilizing a communication app and PROs for breast cancer patients

## PURPOSE

- To discuss how partnerships between academic institutions and ambulatory care centers can be used to improve patient reported outcomes utilizing a communication app .

## METHODS

- PhD and DNP professionals from UTHSC and WCC worked together to develop a communication app and conduct four focus groups (N=28), stratified by race (Black and White) and patient length of time on AET (< 6 months AET use or > 6 months AET use), in Memphis, Tennessee.
- Setting:** University of Tennessee Health Science Center, School of Medicine, (UTHSC), West Cancer Center (WCC), a regional cancer facility located in Memphis, Tennessee, that provides comprehensive oncological services to patients in the U.S. Mid-South region. Emory University located in Atlanta, GA.
- Analyses:** The focus groups were audiotaped, transcribed, and analyzed to identify key themes which were utilized by the team to refine the communication app and open the clinical trial.

## RESULTS

The partnership between UTHSC and WCC resulted in the following :

- NIH/NCI R01CA218155**, PI: Graetz Sep 2017-Aug 2022
- Communication App to Manage Symptoms and Improve Adjuvant Endocrine Therapy Adherence.** This study tests the use of a web-enabled app that is integrated directly with patients' electronic health records, with and without tailored feedback. The app-based intervention is designed to improve patient-provider communication outside of clinic visits, resulting in improved symptom management and adjuvant endocrine therapy adherence among diverse patients with hormone receptor-positive breast cancer. We will evaluate the impact of the intervention on a comprehensive set of outcomes, including rigorous measures of long-term adherence, quality of life, and costs.  
**Budget: \$2,021,260**
- NIH/NCI 3R01CA218155-01S1**, PI: Graetz Mar 2018-Aug 2019
- Effect of patient-provider sexual communication on adjuvant endocrine therapy adherence, sexual dysfunction management, and sexual quality of life among Black women with breast cancer.** Research Supplements to Promote Diversity in Health-Related Research. The objective of this supplement study is to understand how patient-provider sexual communication affects sexual quality of life, symptom management, and AET adherence among Black women with breast cancer.  
**Budget: \$166,087**
- NIH/NCI R01CA218155-02**, PI: Graetz Sep 2018-Aug 2019
- Communication and adjuvant endocrine therapy adherence among lesbian, bisexual, and queer (LBQ) women with breast cancer.** This study uses qualitative (e.g., in-depth interviews and a focus group) and quantitative evidence (self-report measures) to understand the unique patient-provider communication and AET treatment adherence challenges that LBQ women with breast cancer face during the course of their treatments. Results from the qualitative analyses will also be used to inform the development of LBQ-targeted text and graphic messages that will be integrated into the parent app-based intervention among LBQ participants assigned to the App+Feedback intervention arm.  
**Budget: \$222,000**

## IMPLEMENTATION

- If symptom is rated 7 or above, or a change noted greater than 4, an email is generated to the patient's healthcare team.
- Healthcare team contacts patient, provides intervention and/or education on symptom management.
- Healthcare team documents events in EMR.

## APP FEATURES and IMPLEMENTATION



<https://home.vectoroncology.com/>

## CONCLUSIONS

- PhDs and DNPs can work collaboratively and use both clinical practice and research to benefit patients and the organizations in which they work.
- The **communication app** has had practical utility and preliminary data has shown it valuable in patient outcomes.
- PROs are very useful in clinical research, patient outcomes and performance measures.
- Academic partnerships with community clinics can provide great benefit to patients by improving their quality of life and contributing to research.

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