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SAN ANTONIO BREAST CANCER SYMPOSIUM® 2294

Addressing Real-World Diagnostic and Therapeutic Gaps in HER2-Low Metastatic Breast Cancer: A Quality Improvement Initiative in Community Oncology Settings

Jane Meisel, MD[1]; Nikoletta Sidiropoulos, MD[2]; Kelly Valla, PharmD, BCOP[3]; Muhammad Sarfraz Nawaz, MD[4]; Ilona Dewald, MPH[3]; Samuel Dooyema, PhD[3]; Jeffrey Carter, PhD[3]; Cherilyn Heggen, PhD[3]; Kelly McKinnon, PhD[3]
(1) Winship Cancer Institute of Emory University, Atlanta, GA; (2) University of Vermont, Burlington, VT; (3) PRIME Education, New York, NY; (4) Marian University; Indianapolis, IN

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Contact:
k.mckinnon@primeinc.org

BACKGROUND

- Approval of a HER2-directed antibody-drug conjugate (ADC) for patients with lower levels of HER2 expression expands treatment options for patients with HR+/HER2- and triple-negative metastatic breast cancer (mBC).[1,2]
- Emergence of HER2-low and HER2-ultralow classifications underscores the importance of accurate interpretation and reporting of HER2 testing results to guide therapeutic decision-making.[3]
- Variability in pathology review and reporting practices, along with suboptimal communication, results in missed therapeutic opportunities, particularly in community settings.[4]
- As part of a multicenter quality improvement initiative, we evaluated current gaps in HER2 testing and reporting along with therapeutic practice patterns to identify opportunities to improve identification and optimize outcomes among patients with HER2-low mBC within community-based oncology clinics.

METHODS

Between November 2024 to April 2025, 91 healthcare professionals (HCPs) from 7 community oncology clinics were surveyed to assess practice patterns, barriers, and facilitators related to HER2 testing, collaboration with pathologists, and treatment selection for patients with mBC.

Audit-feedback sessions were conducted wherein clinical teams reviewed site-specific data, identified root causes, and developed action plans. Representatives from each clinic later convened to review progress toward goals, address ongoing challenges, and refine action plans. Follow-up surveys were collected to assess sustained practice change.

PROVIDER DEMOGRAPHICS

Characteristics	Participants (N = 91)
Role	
Medical Oncologist	14 (15%)
Surgical Oncologist	1 (1%)
Advanced Practice Providers (NP/PA)	20 (21%)
Pharmacist	4 (4%)
Nurse/Nurse Navigator	34 (36%)
Other (Clinical Research Coordinator, Patient Services Specialist, etc)	18 (23%)
Race/Ethnicity	
African American/Black	8 (9%)
Hispanic, Latinx, or Spanish	11 (12%)
Asian/Pacific Islander	12 (14%)
American Indian/Alaska Native	0 (0%)
White	55 (63%)
Other	2 (2%)
Years Practicing Oncology	Average: 8 Range: < 1 – 30 Median: 5
Breast Cancer Patients Provided Care or Services	**4,955** per month **54** per provider per month

References: 1. Modi S, et al. *N Engl J Med*. 2022;387(1):9–20; 2. Shirman Y, et al. *Breast Cancer (Dove Med Press)*. 2023;15:605-616; 3. Marabi M, et al. *Hum Pathol*. 2025;162:105818; 4. Wu S, Shang J, Li Z, et al. *ESMO Open*. 2025;10(2):104127.

After participating in the audit-feedback sessions, 96% of clinic champions reported increased communication with pathology to clarify HER2 results within pathology reports

Figure 1. Baseline: Provider-Reported Top Challenges in Identifying Patients With HER2-Low mBC

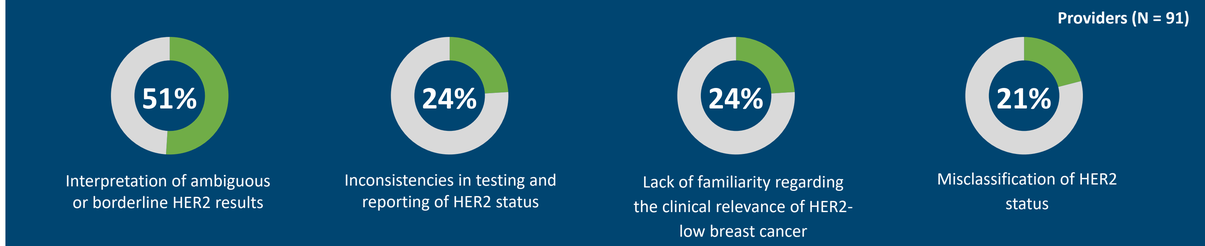


Figure 2. Baseline: Provider-Reported Practice Patterns Related to Identification and Management of HER2-Low mBC

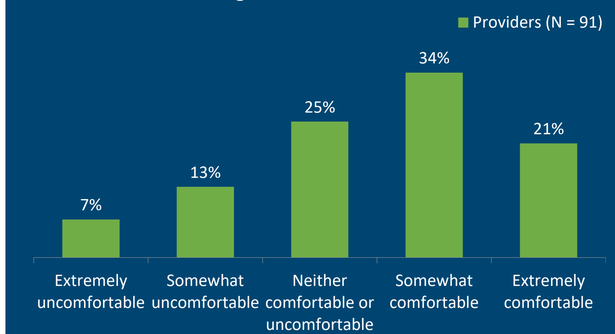


Figure 3. Baseline: Provider-Reported Practice Patterns Related to Identification and Management of HER2-Low mBC

17% of providers repeat a biopsy very often or always at the time of disease progression or new metastases to reassess HER2 status

28% of providers reach out to pathology for clarification of reported HER2 testing results somewhat, very often, or always, despite 40% indicating the need for clarification at least somewhat often to identify HER2-low patients

32% of providers would be very likely to recommend trastuzumab deruxtecan (T-DXd) for patients with metastatic HER2 ICH 1+ or 2+/ISH negative breast cancer

Figure 4. Action Plans Developed by Community-Based Clinics

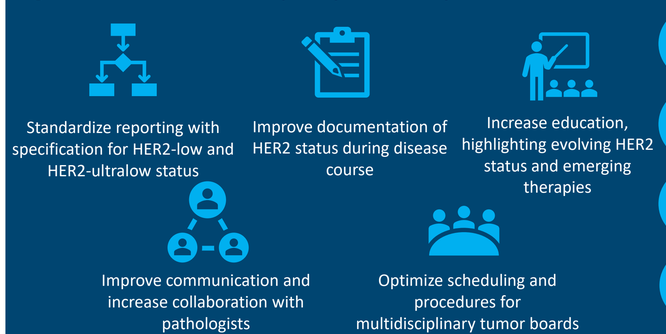
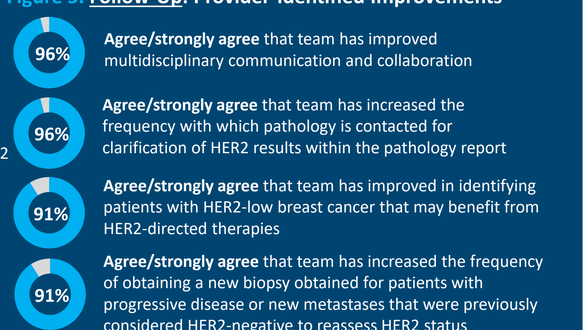


Figure 5. Follow-Up: Provider-Identified Improvements



RESULTS

Figure 6. Follow Up: Provider-Reported Utilization of Approved HER2-Directed Therapy in HER2-Low Patients Following Participation

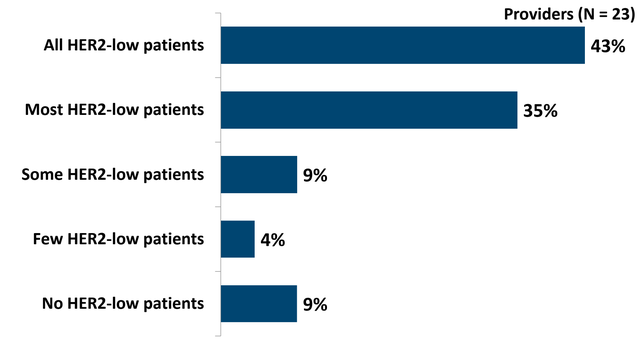


Figure 7. Follow Up: Provider-Reported Top Areas of Progress to Improve Identification and Treatment Selection in HER2-Low and HER2-Ultralow mBC

57% Provide education to the clinic team on the role of HER2-low and HER2-ultralow status in the treatment selection for patients with mBC

43% Provide education to pathology colleagues on the clinical relevance of HER2-low and HER2-ultralow status for patients with mBC

43% Standardize definitions for HER2-low and HER2-ultralow mBC in pathology reports

29% Reassess HER2 status in patients who develop new metastatic disease sites

CONCLUSIONS

This project identified gaps in HER2 reporting that hinder accurate identification of HER2-low mBC and selection of HER2-directed ADCs in community oncology practices, driving action plans to improve clinical workflows and collaboration between oncologists and pathologists. Process changes implemented across participating community clinics represent real-world strategies for sustainable improvements that can be implemented nationwide to improve care for patients with metastatic breast cancer. A planned national survey of pathologists will help further inform standardized workflows and communication strategies across oncology and pathology teams.

DISCLOSURES
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The grantors had no role in the study design, execution, analysis, or reporting.