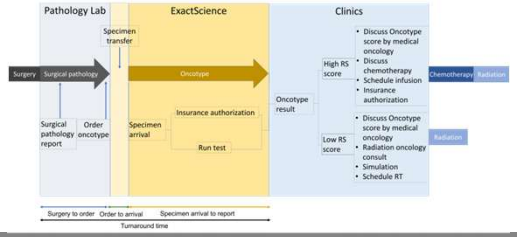
Improving Timeliness of Adjuvant Therapy Through Reduction of Oncotype DX Turnaround Time: A Multi-Site Quality Improvement Initiative at a Rural-Academic Cancer Network in West Virginia

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- Timely initiation of adjuvant therapy based on genomic risk is critical in management of early-stage, HR-positive breast cancer.
- Oncotype DX® guides chemotherapy decision-making, but delays in ordering and processing can hinder prompt treatment.
- At the West Virginia University Cancer Institute (WVUCI), these delays represent a significant gap in care delivery.
- This quality improvement (QI) initiative targeted Oncotype DX® turnaround time (TAT) as a modifiable factor to improve timely initiation of risk-adapted adjuvant therapy



Eligibility: Early-stage, HR+ breast cancer patients who underwent Oncotype DX testing from January 2024-May 2025.
Design: Single-institution, IRB-approved retrospective chart review



❖ **A Plan-Do-Study-Act identified three major contributors to delayed turnaround time (TAT) and adjuvant treatment start**

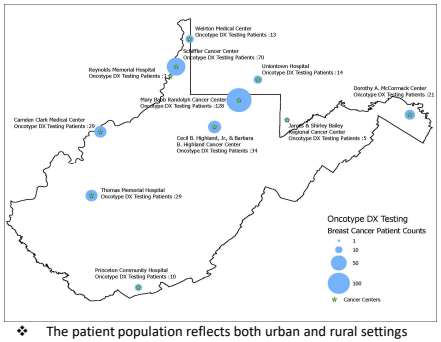
1. Lack of electronic medical record (EMR) integration
2. Insurance pre-authorization delays
3. Internal pathology approval prior to specimen shipment

❖ **Interventions**

1. EMR integration of test ordering via Epic Aura (August 2025)
2. Bypass of insurance pre-authorization for processing (January 2025)
3. Removal of pathologist sample pre-selection (February 2025)

Demographics

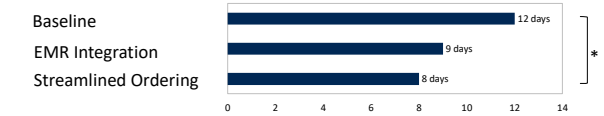
Variable	N(%)
Biologic Sex	
Male	9 (3%)
Female	330 (97%)
Total	339
Age (years)	
Median (range)	67 (33, 92)
T stage	
T1	244 (72%)
T2	86 (25%)
T3	8 (2%)
N status	
N0	247 (73%)
N1	39 (12%)
Nmi	14 (4%)
Nx	38 (11%)
Stage	
I	301 (89%)
II	37 (11%)
III	1 (0.3%)
Adjuvant Treatment	
Chemotherapy	47 (14%)
Radiation	213 (63%)



❖ The patient population reflects both urban and rural settings

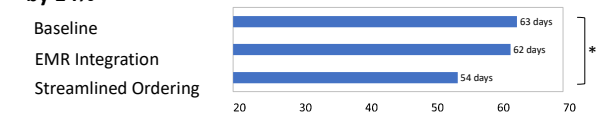
Result

❖ EMR Integration and Streamlined Ordering Decreased Oncotype DX® Turnaround Time by 33%



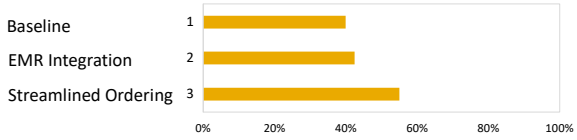
Oncotype DX® turnaround time decreased from a median of 12 days (IQR 8-20) at baseline to 9 (IQR 8-13) and 8 (IQR 7-11) days after interventions (Kruskal-Wallis test, p<0.001*).

❖ Median Days from Surgery to Chemotherapy/RT Initiation Decreased by 14%



Time from surgery to initiation of adjuvant chemotherapy/radiation decreased from a baseline median of 63 days (IQR 46-77) to 62 (IQR 48-86) and 54 days (IQR 41-75) after interventions (p<0.05, Kruskal-Wallis test*).

❖ Rate of Timely Adjuvant Chemotherapy/Radiation Initiation Improved by 15%



Rate of adjuvant chemotherapy/radiation initiation within 8 weeks of surgery increased from 40% at baseline to 42% and 55% after interventions (p=0.12, Chi-square test).

- This multi-site QI initiative achieved a 33% median reduction in Oncotype DX® TAT across the health system.
- The interventions of Oncotype DX® EMR integration, insurance streamlining, and pathology workflow changes had a downstream impact on a significantly reduced time interval from surgery to adjuvant treatment initiation with chemotherapy or radiation therapy.
- Ongoing QI research will evaluate additional interventions to improve the current 55% rate of adjuvant treatment initiation within 8 weeks of surgery.

- This project utilized RedCap, available from grant support to the West Virginia Clinical and Translational Science Institute from the NIH (2U54GM104942-07)
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