

Quality Improvement Project: Opportunities for Improvement

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Abstract

The management of patients with breast cancer has become very complex, and a multidisciplinary approach is paramount to optimal treatment. A multidisciplinary approach requires timely coordination among the varied disciplines involved in patient care, and timely intervention has been shown to lead to better outcomes. To evaluate some of the key processes in providing timely multidisciplinary care, NCCN awarded grants to institutions to evaluate opportunities for improvement in breast cancer care. This article reports on the opportunities for improvement project at Feinberg School of Medicine at Northwestern University. (*J Natl Compr Canc Netw* 2014;12[Suppl 1]:S10-S12)

In 2011, NCCN awarded Northwestern University a grant to participate in a project measuring opportunities for improvement (OFI) in breast cancer. This project was developed to evaluate potential areas in which changes to practice could lead to enhancements in patient care. The OFI project focused on institutional rates of concordance with NCCN Clinical Practice Guidelines in Oncology (NCCN Guidelines) and ASCO quality measures. Northwestern University received a quality assessment summary that provided the aggregate and institutional rates of concordance with both NCCN Guidelines and ASCO quality measures (Tables 1 and 2). Overall, the institution had high concordance rates with most of the measures, and the team elected to eval-

uate the measures with the lowest rates of concordance the: “test measure” (79.3%) and the “ASCO3 measure” (87.0%).

Nonconcordant cases were reviewed for each measure, and the reasons for nonconcordance were evaluated. The “test measure” evaluated the use of chemotherapy and endocrine therapy in women younger than 70 years with stage II, node-positive, estrogen- and progesterone-positive, HER2-negative breast cancer. In the cohort of cases evaluated, 6 of 29 patients did not receive chemotherapy and endocrine therapy; these cases were reviewed to identify possible areas for improvement.

The team reviewing the cases concluded that 1 case was actually concordant but had mistakenly been recorded in the database as metastatic disease. In the second nonconcordant case, chart review indicated that chemotherapy was not recommended or administered because of a comorbid illness that was believed to contraindicate the therapy. In the remaining 4 cases, charts documented that the appropriate therapy was recommended but refused by the patient.

The ASCO3 measure recommends that patients younger than 70 years with stage III (T1cN0), stage II, and stage I breast cancer receive adjuvant chemotherapy begun within 120 days of diagnosis. Among the institution’s subset of 60 cases, care was nonconcordant in 8. Among those cases, 1 patient was advised to have chemotherapy but refused; another patient’s record did not document a recommendation for adjuvant therapy; and 5 patients received treatment but not within the 120-day window. Of these 5 patients, 1 underwent initial workup at an outside institution, then presented to Northwestern University and underwent further testing; this led to a delay in systemic therapy administration past the 120-day window. Two patients received therapy at affiliated sites; however, the medical records were not transferred to our system. The medical record systems between Prentice

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Table 1 Northwestern University's Aggregate Concordance With NCCN Guidelines Category 1 Recommendations

CM	Cohort	Recommended Treatment	Concordance Rate	Total Cases (n)	Non-Concordant Cases (n)	Aggregate Cases (n)	Aggregate Concordance
CM1	Stage I/II node-negative, HR ⁺ tumor size 0.6–1.0 cm, moderately and poorly differentiated or unfavorable features	Adjuvant ET ± chemo	100%	4	0	149	91.9%
CM2	<70 y, stage I/II node-negative, HR, HER2 not overexpressed, tumor size >1 cm	Adjuvant chemo	100%	10	0	194	92.3%
CM3	Stage I/II node-negative, HR ⁺ , HER2 not overexpressed, tumor size >1 cm	Adjuvant ET ± chemo	93.3%	60	4	940	92.7%
CM4	Stage I/II with BCS	ALN + RT or no RT for age >70y, HR ⁺ , T1cN who receive adjuvant ET	96.2%	106	4	1802	94.8%
TM	Patients <70y, stage II, node-positive, HR ⁺ , HER2 not overexpressed	Adjuvant chemo + ET	79.3%	29	6	551	83.7%

Abbreviations: ALN, axillary lymph nodes; BCS, breast-conserving surgery; Chemo, chemotherapy; CM, concordance measure; ET, endocrine therapy; HR, hormone receptor; RT, radiation therapy; TM, test measure.

Women's Hospital, the location of Lynn Sage Comprehensive Breast Center, and our affiliated hospitals or oncology practices at the time were not interconnected making it difficult to confirm whether systemic therapy was administered in a timely fashion. One patient received treatment within 120 days, but the specific treatment was not documented. Therefore, treatment was believed to be discordant. Lastly, 2 patients did not receive systemic therapy in a timely fashion: one because she was pregnant at initial presentation and the other because she had pneumonia that had to be resolved before therapy could begin.

To address these issues, the data were reported to the breast cancer leadership and the multidisciplinary breast team during a breast cancer care conference, and all nonconcordant cases were reviewed and discussed. As a result, although no consistent theme was found, the reviewing group believed that

patients presenting with a diagnosis of breast cancer from outside institutions would benefit from a nurse navigator who could assist in coordinating the multidisciplinary evaluation in a timely fashion. Two nurse navigators were recruited through a generous philanthropic grant. The navigators' goal was to coordinate the patients' initial workup at the study institution. Any imaging from outside institutions would be reviewed internally by the radiology department within 3 days of receipt, and any additional workup needed would be scheduled in a timely fashion.

When any surgical scheduling was performed, postoperative appointments would also be scheduled with the surgeon, a medical oncologist, and a radiation oncologist to avoid delay in obtaining adjuvant therapy recommendations. The goal of this process was to enable patients to receive the recommended adjuvant therapy within the 120-day window.

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Table 2 Institutional and Aggregate Concordance With ASCO or NCCN Quality Measures

Cohort	Recommended Treatment	QM	Concordance Rate	Total Cases (n)	Non-Concordant Cases (n)	Aggregate Cases (n)	Aggregate Concordance
Patients with stage I (T1cN0), stage II, and stage III HR-positive BCA	Tamoxifen or aromatase inhibitor initiated within 1 y after diagnosis	ASCO1	91%	91	8	1983	89%
Patients >70 y with stage I-III BCA who received BCS	Radiation therapy within 1 y of diagnosis	ASCO2	987%	83	2	1526	95%
Patients ≤70 y with stage I (T1cN0), stage II, and stage III BCA	Adjuvant chemotherapy initiated within 120 days of diagnosis	ASCO3	87%	60	8	776	84%

Abbreviations: BCA, breast cancer; BCS, breast-conserving surgery; HR, hormone receptor; QM, quality measure.

Many patients at the Lynn Sage Comprehensive Breast Center at Prentice Women's Hospital have surgical procedures at the institution but undergo adjuvant therapy at locations closer to their residence. Patients are often scheduled for a postoperative visit 1 month postsurgery, for 2 reasons: 1) for a postlumpectomy mammogram in those who presented with calcifications, to ensure that these were all removed; and 2) to ensure that patients have met with the appropriate adjuvant therapy physicians (a medical oncologist, radiation oncologist, or both). Ensuring that the recommended therapy is delivered in a timely fashion has been difficult because of the inability to obtain medical records from outside locations. The largest medical oncology group affiliated with the university has now converted to the same medical record system (EPIC) so that medical records can be shared across locations. This allows for easier documentation that therapy has been administered in a timely fashion. The breast center staff has also tried, at the 6-month postoperative visit, to document where a patient received therapy and to get a treatment summary from any other treating medical or radiation oncologists. If obtained, this information can be scanned into the patients' medical record at Northwestern University.

One of the issues that was identified during this process was that multiple intake forms were being

used for patients across the multidisciplinary team. This often led to patient frustration at having to complete separate but similar forms for each discipline. In response, all of the forms were reviewed and one intake form was developed that could be used across the multidisciplinary group and that would be available to all staff members involved with that case in the medical record. The intake form was designed to complement the NCCN database fields, making it easier to populate the database from the form. In the interim, however, data collection for the NCCN database has been halted, and therefore this has not been put into practice.

Conclusions

The OFI project showed that, although the institution met expected criteria in most areas, opportunities for improvement could still be identified. This project allowed the institution to review system issues and determine how to best manage patients and ensure timely movement from diagnosis through treatment. The ability to obtain treatment and timing documentation remains challenging, particularly for patients receiving care in multiple institutions. However, with better use of electronic medical records and communication across disciplines, this should continue to improve.