University of Michigan Comprehensive Cancer Center Opportunities for Improvement Project

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Abstract

The University of Michigan Comprehensive Cancer Center (UMCCC) Opportunities for Improvement project involved a detailed patient-level medical record review, feedback to medical providers and clinical leadership, and discussion of potential predictors of discordant or delayed care. The medical record review revealed that reasons for discordant or delayed care were well documented by clinical providers, and medical comorbidity was the most common predisposing factor. Another common theme was the difficulty in obtaining treatment records for patients who received a portion of their care outside UMCCC. The project provided a valuable opportunity to examine established processes of care and data collection and consider how the newly implemented electronic health record might support future efforts aimed at improving efficiency and communication among providers. (J Natl Compr Canc Netw 2014;12[Suppl 1]:S19–S20)

The University of Michigan Comprehensive Cancer Center (UMCCC) Opportunities for Improvement (OFI) project was undertaken to examine and improve the quality of care provided to women with breast cancer evaluated and treated at the UMCCC Breast Care Center. The UMCCC Breast Care Center was started in 1985, and it was the first academic multidisciplinary breast care clinic.

The UMCCC project involved 3 broad goals. The first was to perform an in-depth chart review of each discordant case to discover whether recognizable patterns could be determined that would inform a quality improvement plan. These results were then shared with the Breast Care Task Force (BCTF), which consists of representatives from surgical, medical, and radiation oncology; pathology; and radiology. The mission of the BCTF is to implement evidence-based evaluation and management strategies for patient care at the UMCCC Breast Care Center. The results were then shared at the Breast Care Center Educational Forum with the entire breast care team, including mid-level providers, administrators, and support staff from each discipline.

The second broad goal was to incorporate an improvement plan, based on the OFI chart audit, into the greater University of Michigan Health System (UMHS) quality improvement program, with support from the newly implemented electronic health record (EHR) and communication system. The third goal was to examine intervals between interventions for patients treated in the center using the transitions-in-care measures described by Vandergrift et al.1

Initial review of the 6 OFI measures showed the center’s concordance with guidelines to be greater than 85% on 5 of the 6 measures. However, concordance with one measure—care for women younger than 70 years with stage II, hormone receptor–positive, HER2/neu-negative, lymph node–positive breast cancer—fell just below the benchmark at 75%. Therefore, this measure was targeted for review.

The team elected to perform a chart-level review of discordant cases for all measures. The reasons for non-concordance included preexisting comorbidity, interval health events, use of gene expression profile testing, patient refusal, and short delay in initiation of therapy.
The team also noticed rare occasions of discrepancy between tumor marker results from internal compared with external pathology laboratories. With implementation of the new EHR, the team was concerned that clinicians could potentially miss important information because of changes in data flow and tracking. As a result, the pathology department implemented a new process for direct physician notification in the event of a discrepancy between internal and external pathology results.

Presenting in-depth chart audit findings to the BCTF and Breast Care Center Educational Forum attendees illustrated a theme related to adjuvant therapy delay. Providers were surprised to learn that as many as 10% of patients were not recorded as receiving adjuvant endocrine therapy. Performance on this measure did not reflect the center’s clinical practice of recommending adjuvant endocrine therapy within 1 year of diagnosis to all eligible patients. Because half the patients at the Breast Care Center are diagnosed at referring institutions, and many of those patients return to their home communities for adjuvant endocrine therapy, it is possible that the details of outside medical oncology consultations may not be available at data extraction. The team elected to rereview those cases for concordance at a later date and work with the tumor registrar to compare data from alternate sources, such as the National Cancer Database.

The second goal of incorporating an improvement plan into the greater UMHS quality improvement program, and supporting that effort with resources from the newly implemented EHR, proved to be the most challenging. UMHS is a large, complex academic health system with a longstanding commitment to measuring and improving quality. Most of the health system quality improvement programs focused on avoiding complications in the inpatient population and ensuring appropriate outpatient disease management for common conditions such as diabetes or hypertension. After review of the structure of health system–wide quality measurement and reporting structures, the team believed it was appropriate to report on these data to UMCCC leadership for dissemination to the larger institutional leadership structure.

Review also showed the tremendous system- and provider-level stress associated with EHR implementation. The team agreed that the additional work and complexity of learning a new EHR should not be increased at this time. Ultimately, the EHR will be a powerful tool for examining and improving patient care and health, and communication within the system.

Because lack of timeliness was the primary reason for nonconcordance in several cases, the team reviewed “transitions in care” data to determine whether reproducible patterns existed. In general, patients who received all of their care at UMCCC experienced more rapid transition from biopsy to surgery or neoadjuvant chemotherapy, and surgery to adjuvant chemotherapy than those who received a portion of their care outside the center. This finding is not surprising, because EHR and internal data systems are all aligned and allow for free flow of information across the organization. Data for all newly diagnosed patients are reviewed at presentation and before adjuvant therapy. This system enhances communication and facilitates transitions among providers. A substantial amount of information is gathered and reviewed on all patients presenting from outside institutions, which can increase the time between biopsy and first course of therapy. This finding presents an opportunity to examine efficiency during the patient intake process and work toward streamlining workflow.

In summary, no major quality gaps were identified during UMCCC’s participation in the NCCN OFI project. Instead, this project presented a valuable opportunity to examine processes of care and data collection, collaborate with peer institutions, and consider how best to incorporate EHR into quality improvement programs.

Reference