Creating a Breast Cancer Risk Assessment Referral Program Utilizing the Electronic Medical Record System (EMR) EPIC

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Category I- Programs- High Risk Program

Objectives
The objective is to identify patients who are appropriate for a formal breast cancer risk assessment based on their responses to standard questions collected at the time of mammography. The existing electronic medical record system contains the information needed to identify patients who would benefit from a breast cancer risk assessment (BCRA); however, there was no mechanism in the EMR EPIC to highlight those patients appropriate for referral. Our goal was to utilize the EMR EPIC to highlight patient’s family history that may indicate a risk, then notify the ordering providers of this risk and encourage referral for a formal risk assessment. The formal risk assessment includes a complete family history, possible genetic testing if appropriate, and alternative risk reduction strategies to assess for and prevent future breast cancers.

Methods
The first step was for medical oncologist, radiologist, genetic counselor, and breast navigator to meet to discuss how to identify patients needing a referral for breast cancer risk assessment. Risk assessment models such as Tyrer-Cuzwik and Gail as well as NCCN guidelines were reviewed to identify patient characteristics needed to prompt a referral. The mammography history form was modified to include these characteristics. The group created an algorithm to present to the EPIC team.

The EPIC team reviewed the algorithm and implemented it into the EMR EPIC system. Patients with one or more qualifying characteristics on the mammography history form were highlighted in yellow to alert the reading radiologist that the patient was appropriate for referral. A canned text statement was created for the radiologist to include in the mammography report of patients with yellow highlighting.

Referring provider education was determined to be vital for successful implementation of this process. The breast navigator reached out to select ordering providers to inform them of this new feature in mammography reporting and the Marketing department was asked to create educational pamphlets for ordering providers and patients describing the BCRA program at our institution. It was also important to audit the highlighting to identify the ordering physicians with at risk patients. We worked with the EPIC team to create a list of all patients who were recommended for referral so that the breast navigator can follow-up with ordering provider to answer questions, obtain provider feedback, and assist with patient referrals.

The final step in this process is the patient attending a successful consultation with the medical oncologist, genetic counselor, and breast navigator to discuss and implement appropriate breast cancer risk management strategies.

Results
This program has been in development since the implementation of the EMR EPIC in May of 2013. There were many pitfalls in the implementation of this process that were worked through to develop a successful program. Technical difficulties occurred with the EMR EPIC programming that included inappropriate highlighting, creating an appropriate audit report, and adjusting the mammography history form. The mammography staff had to be educated on the appropriate way to enter in the data into the history form so the information would highlight appropriately. The mammography radiologists needed to be trained appropriately to view the mammography history form with the highlighting and to insert the canned text into the report.

After these adjustments were made to the program we identified our first at risk patients appropriate for BCRA in November of 2013. At the time of this submission three patients have completed the process including a successful consultation. Five patients were recommended and/or completed a screening MRI for risk assessment, and four genetic tests have been ordered based on this program. The breast navigator continues to audit the patients appropriate for referral and then contacts the ordering provider to facilitate these patients to schedule a consultation.

Conclusion
We were successful in creating a process using the EMR to highlight patients appropriate for breast cancer risk assessment referral. The development of this process has improved quality breast cancer care through improved communication between first-line providers such as PCPs and Ob/Gyns, Radiologist, and the Breast Cancer Risk Assessment team. This process is important for our breast program because of its ongoing efforts to ensure that patients receive medical management commiserate with their level of risk based on personal and family history characteristics. Future goals of this effort will be to assess if this process affects the number and severity of newly diagnosed breast cancers in our patient population.