Retrospective QI study of anti-estrogen adherence in women with estrogen receptor positive breast cancer

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Introduction

In 2016, a request for data abstract of patients having received intraoperative radiation therapy (IORT) at time of breast tumor lumpectomy was completed. Ninety-six cases of IORT conducted from 11-2-11 to 12-6-2016 were abstracted. It was discovered that approximately 22.5% of estrogen receptor positive breast cancer patients receiving IORT either declined or had < 1 year of anti-estrogen therapy. Adherence to antiestrogen therapy is a concern, not only in the subgroup of patients receiving IORT, but in all estrogen receptor positive breast cancer patients.

Objectives

This quality Improvement project was designed to:
- review anti-estrogen adherence statistics
- assess current anti-estrogen prescription practices and follow-up
- review evidence-based methods to improve adherence to anti-estrogen therapy
- recommend practice changes to facilitate improved adherence.

Literature Review

Breast cancer patients may be followed by multiple disciplines including Medical Oncology, Radiation Oncology and Surgical Oncology. NCCN guidelines recommend follow-up 3-4 times in the first year post therapy [1]. For patients that are prescribed oral antiestrogens, this is a critical time to support patient adherence to antiestrogen therapy. Literature review also documents that persons discontinuing therapy, typically do so in the first year. Adherence rates of <80% with endocrine therapy completion has been shown to be associated with an increase in all-cause mortality [2]. According to the literature, there are many factors that may influence a woman’s acceptance and adherence to antiestrogens [3]. Factors may be age and cognitive status, stage of disease, educational, employment and socioeconomic status, marital/family status, co-morbid conditions, side effects, as well as relationship with providers [2, 3, 4, 5, 9, 11]. Negative beliefs and patients’ negative perceptions related to Tamoxifen and Aromatase Inhibitors contributed to failure to initiate the medications regimen [3]. Educational interventions to women about the benefits of hormonal therapy may decrease negative beliefs and increase hormone initiation [4]. The literature describes one key healthcare system factor playing a significant role in adherence, that of the patient provider relationship. This study found that patients with breast cancer who are given adequate medical support are more likely to improve their adherence to treatment. This study found that patients with breast cancer who are given adequate medical support are more likely to improve their adherence to treatment. This study found that patients with breast cancer who are given adequate medical support are more likely to improve their adherence to treatment. This study found that patients with breast cancer who are given adequate medical support are more likely to improve their adherence to treatment.

Methods

Retrospective Chart Review

33% of Charts Reviewed from 2011 through 2015 (167/501)
Data abstracted to excel spreadsheet format

Plan

Build Patient-Provider relationship through team based approach to care
Standardize assessment of barriers to adherence through use of the MASCC MOAT tool evaluation-based method
Nurse Care Coordinators to facilitate use of assessment tool and provide telephone contact at regular intervals
Incorporate assessment tool into Electronic Medical Records
Development of Standard Operating Procedure (SOP) for patient assessment, education and follow-up care
Evaluate use of this standardized format for future application in all oncological management

Results

Data Analysis for 2011 and 2012

N=56
35 patients completed their anti-estrogen therapy (62%)
19 did not complete therapy (29%)
3 declined, 7 < 1 year, 3 ended between years 1-3, 3 ended between years 1-3
2 not offered therapy, 1 unknown
2 were lost to follow-up (4%)

Conclusions

Literature review verifies the need for provider/care team support during the critical first year of antiestrogen therapy, as the first year has been identified as the time when most women will prematurely end their antiestrogen use. The data from this QI project is consistent with that found in the literature. Data analysis and recommendations for process improvement, with reference to evidence based guidelines, was presented to members of the Cancer Committee. A proactive means to identify potential barriers to adherence through the use of the MASCC MOAT assessment tool was carefully reviewed. This tool is available to standardize patient assessment among prescribers as well as to plan individualized teaching strategies to improve adherence. Also developed as part of this quality improvement project was the development of a standard operating procedure (SOP) for anti-estrogen therapy and follow-up. It is designed to standardize support during the first year post recommendation/prescription of anti-estrogens using a combination of provider visits as well as interim telephone contact by Nurse Care Coordinators (NCC). Continued teaching and coaching from oncology nursing staff will help support the patient as symptom management needs arise.

References


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