

Standard 4.6

2016 monitoring compliance with evidence based guidelines

Methodology: Assess NCCN guidelines compliance in pathologic stage I breast cancer, hormone receptor positive and HER-2/neu negative, undergoing Oncotype DX testing and rationale for subsequent chemotherapy plus endocrine versus endocrine therapy. Data pulled for stage I breast cancer, diagnosed at Cape Fear Valley Health System in 2016.

Resources associated with review: NCCN guidelines version 3.2017; invasive breast cancer, systemic adjuvant treatment for hormone receptor positive, HER-2/neu negative disease.

A total of 64 cases of stage I breast cancer identified that were hormone receptor positive, and HER-2/neu negative, in 2016. The age range was between 40- 83. There were 21 cases of well-differentiated, grade I cancers, 30 cases of grade II moderately differentiated cancers, and 11 cases of poorly differentiated grade III cancers. There were 2 cases with NOS.

Oncotype DX testing was ordered in 29 cases. There were 6 in grade I, 15 in grade II, and 7 in grade III stage I breast cancers. Low recurrence score of less than 18, was reported in 16 cases. Intermediate recurrent score of 18-30 was reported in 13 cases. There were no reported cases of high recurrence score of more than 31, in this pool of 29 stage I breast cancer patients tested for 21 gene RT PCR assay for breast cancer recurrence by Oncotype DX.

Adjuvant chemotherapy followed by adjuvant radiation, and hormonal treatment was offered to 3 out of 13 cases with intermediate recurrence score on Oncotype DX. There were 3 cases of stage I breast cancer out of the group of 35 cases, where Oncotype DX test was not done, and were treated with adjuvant chemotherapy, followed by radiation and hormonal therapy.

According to NCCN guidelines version 3.2017, the 21 gene RT-PCR assay recurrence score can be considered in hormone receptor positive and HER-2/neu negative breast cancers measuring more than 0.5 cm, without axillary lymph nodes; or with one to 3 involved ipsilateral axillary lymph nodes to guide the addition of combination chemotherapy to standard hormone therapy. Other prognostic multi-gene assays (mammprint) may be considered to help assess risk of recurrence, but has not been validated to predict response to chemotherapy.

Conclusion: There were only 6 out of 64 cases of stage I breast cancer, hormone receptor positive and HER-2/neu negative, that had received adjuvant chemotherapy, followed by radiation treatment and hormonal treatment. Oncotype DX test was done in 3 of these cases, and the other 3 received chemotherapy at the discretion of the treating clinician. Oncotype DX, or a similar multigene assay should be utilized to screen out the patients with low recurrence risk group, to avoid unnecessary chemotherapy.

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