Use of Clinical Practice Guidelines for Radiation Treatment (Example: Early-Stage Breast Cancer)

Nearly all cancer patients with early-stage breast cancer who received radiation treatment following breast conserving surgery continue to be treated according to the current guideline.

What's new this year?
The Methodology for this indicator has been refined this year. It now includes only cases receiving adjuvant radiotherapy following breast conserving surgery (also known as lumpectomies). Previous indicators published in CSQI included all patients who received radiation treatment. Since the guideline specifically calls for radiation therapy following lumpectomies to reduce risk of recurrence, this year's indicator is a more meaningful measure of guideline concordance.

See table on next page.
What do the results show?

- This report shows that most breast cancer patients who received radiation treatment were treated according to the current guideline.
- It is not certain, at this time, if the changes in the percentage treated according to the guideline in some centres is attributable to a change in practice or to data quality issues. Also, the impact of clinical trial treatments on the results cannot be reliably measured.
- Non-adherence with the guideline therapy does not necessarily mean
inappropriate treatment. Some patients may not be fit for the guideline treatment due to age and other conditions. Others may be on clinical trials and receiving different therapy than what is indicated in the guidelines.

**Why is this important to patient care?**

- Evidence has shown that appropriate radiation therapy to the breast after a lumpectomy reduces the rate of cancer recurrence in the breast for patients diagnosed with early stage disease. Applying the treatment guidelines is expected to lead to improved outcomes for patients qualifying for the therapy contributing to the overall quality of cancer care.

**How does Ontario compare?**

- No readily available comparators were identified for this measure.

**What is being done?**

- Cancer Care Ontario is supporting the development of communities of practice that will allow for the dissemination of best practices for quality indicators related to cancer care. Related initiatives include information and education strategies to improve compliance with guidelines, focusing on providing regional and hospital performance data to those who influence and effect positive changes in practice.
- CCO is holding regional cancer programs accountable for their adherence to provincial clinical practice guidelines.
- CCO has launched an effort aimed at collecting valid and reliable stage data for 90% of all incident stageable cases in Ontario. This will greatly enhance the ability to produce meaningful stage based indicators.

**Technical information**

**Definitions**

- Concordance with the guideline was defined as either between 15 and 30 radiation treatment visits, excluding boosts. This was intended to capture all patients who had the recommended fractionation schedule of either 16 or 25 fractions.
- Included: patients recorded as having stage 1 or 2 breast cancer who had breast-conserving surgery (and no mastectomies) and who started radiation treatment to the breast region at a cancer centre in 2003, 2004, or 2005.
- Excluded: patients with ductal carcinoma in situ, patients with mastectomies.
• The number of treatment visits was used as a proxy for the number of fractions.
• Exclusions:
  • patients for whom stage was not reported or was invalid
  • mastectomies (as per the guideline definition)

Data Sources
• Cancer Care Ontario, Activity Level Reporting
• Cancer Care Ontario. Ontario Cancer Registry

Data Quality

Completeness
• This analysis excluded patients who received their radiation treatments at Princess Margaret Hospital, and the Peel and Durham regional cancer centres. Future reports will include these patients once the data become available
• This analysis did not exclude patients who did not receive care according to guidelines but were on clinical trials. Patient on clinical trials are considered to be receiving appropriate care.

Accuracy
• Identification of the population for the indicator relies on accurate reporting of patient stage, treatments and participation in clinical trials. The results could be skewed in varying directions depending on the accuracy with which each centre recorded these items.
• Comparisons between centres must be made with caution as there was no additional adjustment of the findings to account for possible differences in the patient populations between the centres, such as age or other conditions.
• The indicator does not measure the percent of all new breast cancer cases with stage 1 and 2 disease that receive radiation therapy according to the guidelines. This important indicator will be feasible once valid stage data is available for all incident cases in Ontario.