Ontario Health
Cancer Care Ontario

COVID-19 Supplemental Clinical Guidance for Patients with Cancer

#2: Management of Patients with Breast Cancer being considered for Radiation Therapy

April 25, 2020

Contents

INTRODUCTION

Major planning directives related to the COVID-19 pandemic will be coordinated through Ontario Health, the Ministry of Health, and Ontario Public Health.

On March 10th, 2020, Ontario Health (Cancer Care Ontario) circulated the *Pandemic Planning Clinical Guideline for Patients with Cancer*, which provides recommendations for a systematic approach in determining priority for consultation and treatment of patients with cancer in Ontario during the time of a pandemic. This was followed by *the COVID-19 Supplemental Clinical Guidance for Patients with Cancer* on March 31st, 2020. These documents are intended to augment provincial, regional, and organizational pandemic planning by providing clinical guidance specific to cancer care.

This document is intended as additional guidance specific to the use of Radiation Treatment (RT) for Breast Cancer during the COVID-19 pandemic. It is not intended to replace or supersede Ministry of Health directives, Public Health Ontario directives or hospital infection prevention and control practices that are implemented. Further updates may be released as the COVID-19 pandemic evolves and clinical evidence develops. The information provided herein is supplemental to that provided in sections of the Pandemic Planning Clinical Guideline and does not replace it.

Since patients with breast cancer makes up approximately 25% of all cases treated with Radiation Therapy in Ontario, reducing patient visits to the cancer centres is important in:

- Minimizing the risk of infection for patients (many of whom will have had systemic chemotherapy prior to RT)
- Minimizing transmission of the COVID-19 infection to other patients
- Minimizing the risk of transmission to staff (especially radiation therapists as a shortage of these critical members of the treatment team could affect RT treatment capacity)

For these reasons, Ontario Health (Cancer Care Ontario) convened a disease-specific working group, with Radiation Oncology experts from across the province, to develop a guidance document for the radiation oncology breast cancer community in Ontario. The proposed strategies were also discussed by the Ontario Health (Cancer Care Ontario) multi-disciplinary Breast Cancer Advisory Committee. As discussed in the March 31st *COVID-19 Supplemental Clinical Guidance for Patients with Cancer*, while the waiting time for treatment for these patients should be kept as short as reasonably achievable, when there is moderate or severe health care resource limitation (or the expectation that this will happen imminently) delaying treatment may be necessary.

This document provides some general guidance regarding which patients' treatment may be omitted or deferred during the current pandemic, and some suggestions on the possible use of hypofractionated radiotherapy schedules for those that do require treatment without delay. In the context of the pandemic, these hypofractionation schedules are considered reasonable but it must be noted that long term follow-up data from their use is not available. However, it is recognized that these are suggestions only, and that individual patient care is the responsibility of the treating physician and institution.

MEASURES TO DELAY, OMIT OR DECREASE ADJUVANT RT TREATMENTS

Omission

- Consider endocrine therapy (ET) only and RT omission in women > 65 years and low-risk - pT1N0 grades 1 or 2 invasive ductal carcinoma (IDC), lymphovascular invasion (LVI) negative, estrogen receptor (ER) positive, human epidermal growth factor receptor 2 (HER2) negative, minimum margin of 1mm
    - Exclusion: Not eligible for ET only if T2 or extensive intraductal component (EIC) or positive, LVI positive or multifocal invasive carcinoma or invasive lobular carcinoma (ILC)
    - Can consider omission in ductal carcinoma in situ (DCIS), greater than 55 years of age, G1/2, <2.5 cm, margins > 1-2mm
        - if ER is available, can consider ET if ER positive

Delay

- For patients with low-intermediate risk invasive disease (T1-2N0) receiving ET or systemic therapy, or DCIS, RT can be delayed up to 20 weeks[i].
- Triple negative, HER2+ and other high-risk patients to be treated as per centre's standard of care

Hypofractionation

Whole breast:

- Encourage hypofractionation (HF) for all patients, including those undergoing regional node irradiation (RNI) and those who underwent reconstruction or implant. Recommend 40.05-42.6 Gy in 15-16 fractions, strongly discourage 50 Gy in 25 fractions
    - As an alternative, consider HF of 26 Gy in 5 fractions daily for whole breast irradiation (WBI) as per FAST-Forward trial[ii], or 28.5 Gy in 5 fractions once weekly (FAST trial)[iii] – depending on physician/patient preference

Partial breast:

- Consider partial breast irradiation (PBI) 26Gy in 5 fractions daily for eligible patients (based on ASTRO guidelines[iv]):
- IDC, T1, grade 1-2
    - Age - ≥50, Surgical margins - ≥2 mm; cautionary if margins <2mm.

- DCIS – low risk based on RTOG 98041
    - Low- or intermediate-grade DCIS, less than 2.5 cm with margins ≥ 2 mm[v]

Nodal Radiation

- Consider omission of full nodal RT in post-menopausal women with sentinel node biopsy (SNB) for T1, ER positive, HER2 negative, grades 1-2 with 1-2 macrometastases. Offer WBI or WBI plus axilla (level 1-2) as alternative with HF regimen (40.05-42.6Gy in 15-16 fractions or a 5-fraction regimen)
- Limit IMN-RT as much as possible to MA-20[vi] eligible patients in order to reduce planning load and requirement for breath-hold in anticipation of significant resource constraints
- If resource constraints exist, limit use of breath-hold to patients undergoing left-sided RT or cardiac disease history

Boost

- Limit use of boost unless young or significant risk factors for local recurrence. Recommend boost of 10Gy in 4 fractions if:
    - Less than 40 years or greater than 40 years with close or positive margins
    - If positive margins, and re-excision not planned, consider UK guidelines boost regimen[vii] ie. 12Gy in 4 fractions
    - Consider using simultaneous integrated boost (SIB) vs. sequential

Table 1. Measures to delay, omit or decrease adjuvant RT treatment for breast cancer during pandemic

Stage	Subgroup	Guidance statement	Breast categorization	Age categorization	Margins	Dose Fractionation
pT1N0 G1/2 pTis	ER+ HER2-ve, LVI-ve <2.5 cm	Consider ET only and RT omission in women > 65 AND low risk: pT1N0 G1/2 IDC, LVI-ve, ER+ HER2-ve, minimum margin of 1mm Consider RT omission or ET with patients with G1/2 DCIS and ER+ (if ER test is available), who are >55, with margins ≥1-2mm.	RT Omission	>65 years >55 years	Minimum of 1mm Minimum of 1mm	N/A
T1-2N0 pTis	Low-intermediate risk	RT can be delayed up to 20 weeks, or consider partial breast as below	RT Delay	All	≥1-2mm	N/A
	Low-intermediate risk	Consider partial breast irradiation (PBI) 26Gy/5f daily for eligible patients.	Partial breast	≥50	≥2 mm	26Gy in 5 fractions daily
	High risk (large size, G3, LVI, EIC, ILC etc.)	Not eligible for ET only if T2, G3, EIC positive, LVI+, multifocal or invasive lobular carcinoma (ILC)	Whole breast RT	All	≥1-2mm	40.05-42.6Gy in 15-16 fractions 26Gy in 5 fractions daily 28.5Gy in 5 fractions once weekly
T1-3 N1/2	N+ low risk	Consider omission of full nodal RT in post-menopausal women following BCS with sentinel node biopsy (SNB) for T1, ER+ve, HER2-ve, G1-2 with 1-2 macrometastases.	Whole breast Chest wall Recon/implant	All	All	40.05-42.6Gy in 15-16 fractions
	N+ intermediate-high risk	Limit IMN-RT as much as possible to MA-20 eligible patients	Nodal RT	All	All	40.05-42.6Gy in 15-16 fractions
Boost	All	Limit use of boost unless young (< 40 years) or the presence of high risk factors (eg. close or positive margins)	Boost	<40, >40 with risk factors	Margin +ve or <1-2 mm	10Gy in 4 fractions 12Gy in 4 fractions if positive

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