



Guideline 8-9 IN REVIEW

**A Quality Initiative of the
Program in Evidence-Based Care (PEBC), Cancer Care Ontario (CCO)**

**The Use of Adjuvant Radiation Therapy for Curatively
Resected Cutaneous Melanoma**

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An assessment conducted in December 2025 placed Guideline 8-9 IN REVIEW. This means that it is undergoing a review for currency and relevance. It is still appropriate for this document to be available while this updating process unfolds. The PEBC has a formal and standardized process to ensure the currency of each document ([PEBC Assessment & Review Protocol](#))

Guideline 8-9 is comprised of 5 sections. You can access the summary and full report here:

<https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/31771>

Section 1:	Recommendations
Section 2:	Recommendations and Key Evidence
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The Use of Adjuvant Radiation Therapy for Curatively Resected Cutaneous Melanoma

Recommendations

This is a quick reference guide and provides the guideline recommendations only. For key evidence associated with each recommendation, the systematic review, and the guideline development process, see the Full Report.

GUIDELINE OBJECTIVES

To determine when adjuvant radiation therapy (RT) should be considered for stage I-III melanoma patients following resected curative treatment.

TARGET POPULATION

Patients diagnosed with stage I-III cutaneous melanoma who have received curative resection of their melanoma comprise the target population for this guideline. The target population includes both patients diagnosed with primary melanoma and those with recurrence at the primary site or nodal recurrence.

INTENDED USERS

The intended users for this guidelines are all members of the multidisciplinary melanoma team, including radiation oncologists, medical oncologists, surgeons, and dermatologists.

RECOMMENDATIONS

Recommendation Preamble

There is minimal evidence to inform recommendations on the use of adjuvant RT for stage I-III melanoma patients. Based on the available evidence, the Adjuvant RT Guideline Development Group suggests the following recommendations. For ease of recommendation use, the target population has been broken down into four groups based on disease presentation and histology. Due to the lack of high-quality evidence to inform these recommendations, it is suggested that these cases be discussed in multidisciplinary case conferences. Additionally, special attention to ensure prospective adjuvant RT patients fully understand the benefits and risks of treatment is warranted so that informed decisions can be made.

Patients with Primary Melanoma and Recurrence at the Primary Site

Recommendation 1

- For patients at high risk for recurrence at the primary site following curative resection, adjuvant RT may be a reasonable option if adequate clear margins are unachievable.

Qualifying Statements for Recommendation 1

- Patients at high risk for recurrence include those with melanomas located on the head and neck, or when positive margins or satellitosis features are present.
- Adequate primary excision margins for melanoma are fully detailed in [PEBC Guideline 8-2](#).

Recommendation 2

- No evidence-based recommendation for adjuvant RT can be made for patients following curative resection for primary melanoma with satellites, or for recurrence at the primary melanoma site; however, based on expert opinion of the Working Group, adjuvant RT may be a reasonable option for these patients if adequate clear margins are unachievable.

Qualifying Statements for Recommendation 2

- Further surgery is the preferred option for these patients, but if adequate clear margins cannot be achieved, adjuvant RT can be considered.
- Adequate primary excision margins for melanoma are fully detailed in [PEBC Guideline 8-2](#).

Patients with Desmoplastic/Neurotropic Melanoma

Recommendation 3

- For patients diagnosed with desmoplastic melanoma, adjuvant RT following curative resection for the primary tumour is a reasonable option to improve local control.

Patients with In-Transit Primary and In-Transit Recurrent Melanomas

Recommendation 4

- No evidence-based recommendation can be made for patients following curative resection for in-transit primary melanoma or in-transit recurrences; however, based on the expert opinion of the Working Group, adjuvant RT may be considered on a case-by-case basis.

Stage III Melanoma Patients with High Risk for Lymph Node Relapse and All Patients with Nodal Recurrence

Recommendation 5

- Following lymphadenectomy either for stage III melanoma patients at high risk for lymph node relapse, or for all patients with nodal recurrence, adjuvant RT to the regional nodal basin is a reasonable option to improve local regional control.

Qualifying Statements for Recommendation 5

- Patients at high risk for lymph node relapse can include those with large lymph nodes (≥ 3 cm), multiple involved lymph nodes (≥ 1 parotid, or ≥ 2 cervical or axillary, or ≥ 3 inguinal or epitrochlear), extracapsular extension, or prior recurrent disease.
- Adjuvant RT is associated with improved local regional control, but has no impact on relapse-free survival or overall survival. The benefits of adjuvant RT must be weighed against the increased probability of long-term skin and regional toxicities including lymphedema for individual patients.

Adjuvant RT Fractionation Schedule

Recommendation 6

- A standard fractionation schedule may be considered when planning adjuvant RT.

Qualifying Statements for Recommendation 6

- Standard fractionation schedules are defined as those that deliver ≤ 2.5 Gy per fraction daily for at least 20 fractions.

FURTHER QUALIFYING STATEMENTS

- Caution should be used when directing adjuvant RT to the head and neck region due to a possibility of increased adverse events.