Ontario Health
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Guideline 26-3 Version 2

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

Follow-up and Surveillance of Curatively Treated Patients with Lung Cancer

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An assessment conducted in February 2026 deferred the review of Guideline 26-3 Version 2. This means that the document remains current until it is assessed again next year. The PEBC has a formal and standardized process to ensure the currency of each document (PEBC Assessment & Review Protocol)

Guideline 26-3 Version 2 is comprised of 5 sections. You can access the summary and full report here:

https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/261

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Follow-up and Surveillance of Curatively Treated Patients with Lung Cancer

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

The primary objective of this guideline is to develop recommendations for the optimal management of patients with lung cancer after curative-intent treatment.

TARGET POPULATION

The target population includes adult patients with small cell lung cancer (SCLC) or non-small cell lung cancer (NSCLC) after curative-intent treatment.

INTENDED USERS

This guideline is targeted to thoracic surgeons, medical and radiation oncologists specializing in lung cancer, radiologists, primary care providers, respirologists, nurses, and psychosocial care providers.

RECOMMENDATIONS

These recommendations are a combination of endorsements of recommendations from other guidelines and new recommendations. Recommendations 1 to 5 were endorsed from the American Society of Clinical Oncology (ASCO) 2020 guideline [1] on imaging surveillance strategies. Recommendations 6, 8, 9, and 11 were endorsed from the previous PEBC 2014 version of this guideline. Recommendation 10 was endorsed from the OH (CCO) 2022 guideline on virtual care [4]. Recommendation 12 was endorsed from the vaccination schedule recommended by the Government of Canada [5]. Recommendations 7 and 13 were new recommendations.

RECOMMENDATIONS 1 to 5 (Endorsed from the ASCO 2020 [1] recommendations)

Note:

- These recommendations apply to patients with curatively treated stage I-III NSCLC and SCLC with no clinical suspicion of recurrent disease. This includes patients treated with surgery, stereotactic body radiotherapy, and chemoradiation.
- These recommendations pertain only to routine surveillance strategies. Imaging to evaluate symptoms and follow up on previous findings is not addressed by this guideline.
- These recommendations do not address the frequency of the clinical evaluation (history and physical examination) for either the suspicion of recurrence and/or to provide reassurance.

Recommendation 1.1

Patients should undergo surveillance imaging for recurrence every six months for two years.

Recommendation 1.2

Patients should undergo surveillance imaging for detection of new primary lung cancers annually after the first two years.

Recommendation 2.1
Clinicians should use a diagnostic or low-dose chest computed tomography (CT) that includes the adrenals, without contrast (preferred) or with contrast (when indicated) when conducting surveillance for recurrence during the first two years post treatment.

Qualifying statement for Recommendation 2.1
There is no evidence of added benefit for a CT of the abdomen and pelvis over a chest CT through the adrenals as a surveillance imaging modality for recurrence.

Recommendation 2.2
Clinicians should use a low-dose chest CT when conducting surveillance for new lung primaries after the first two years post treatment.

Recommendation 2.3
Clinicians should not use ^{18}F-labeled fluorodeoxyglucose positron emission tomography as a surveillance tool.

Recommendation 3
Surveillance imaging may be omitted in patients who are clinically unsuitable for or unwilling to accept further treatment. Age should not preclude surveillance imaging. Consideration of overall health status, chronic medical conditions, and patient preferences is recommended.

Recommendation 4
Clinicians should not use circulating biomarkers as a surveillance strategy for detection of recurrence in patients who have undergone curative-intent treatment of stage I-III NSCLC or SCLC.

Recommendation 5.1
For patients with stage I-III NSCLC, clinicians should not perform routine brain surveillance for recurrence with either magnetic resonance imaging (MRI) or CT in patients who have undergone curative-intent treatment.

Recommendation 5.2
In patients who have undergone curative-intent treatment of stage I-III SCLC and did not receive prophylactic cranial irradiation (PCI), clinicians should offer brain MRI every three months for the first year and every six months for the second year for surveillance. The same schedule may be offered for patients who did receive PCI.

Qualifying statement for Recommendation 5.2
Brain MRI should not be routinely offered to asymptomatic patients after two years of disease-free survival.

RECOMMENDATION 6
In the expert opinion of the authors, any new and persistent or worsening symptom warrants the consideration of a recurrence, especially:

Constitutional symptoms:
- Dysphagia
- Fatigue (new onset)
- Nausea or vomiting (unexplained)

- New finger clubbing
- Suspicious lymphadenopathy
- Sweats (unexplained)
- Thrombotic event
- Weight loss or loss of appetite

Pain:

- Bone pain
- Chest pain
- Caveat shoulder pain not related to trauma

Neurological symptoms:

- Headaches (if persistent)
- New neurological signs suggestive of brain metastases or cord compression such as leg weakness or speech changes
- Headache or focal neurological symptoms

Respiratory symptoms:

- Cough (despite use of antibiotics)
- Dyspnea
- Hemoptysis
- Hoarseness
- Signs of superior vena cava obstruction
- Stridor

RECOMMENDATION 7

There is insufficient evidence to recommend routine completion of patient-reported outcome tools at home for symptom monitoring or early detection of recurrence.

RECOMMENDATION 8

Health-related quality of life is very important for long-term survivors suffering from late side effects of their curative-intent therapy (including surgery, chemotherapy, and radiation therapy). Symptoms that are frequently experienced by lung cancer survivors include but are not limited to:

Constitutional issues:

- Anxiety
- Cough
- Decline in appetite
- Decrease in general health
- Depression
- Dysphagia
- Fatigue
- Fear of cancer recurrence
- Pain
- Physical ability restrictions
- Reduced sleep quality
- Shortness of breath

Long-term systemic therapy effects:

- Hearing loss
- Neuropathies
- Renal impairment
- Delayed immune-related adverse events
- Cumulative toxicities from ongoing therapy with tyrosine kinase inhibitors

Long-term radiation effects:

- Breathing complications
- Breathlessness/dyspnea

Long-term post-surgical effects:

- Empyema
- Oxygen dependence
- Post-thoracotomy pain syndrome
- Reduced exercise tolerance or activity limitations
- Shortness of breath

Patients should be encouraged to discuss these symptoms with their healthcare providers. Health care professionals need to aid lung cancer survivors in handling these symptoms to improve quality of life.

RECOMMENDATION 9
For lung cancer survivors who have completed curative-intent therapy, surveillance is required and may be provided by specialists, family physicians or nurse-led clinics.

RECOMMENDATION 10 (Endorsed from the OH (CCO) 2022 [2] recommendations)
Cancer survivorship considerations during virtual care

- Assess the need for in-person physical examination
- Cancer survivors under surveillance following curative intent treatment can be safely followed using virtual care, unless in-person physical examination is indicated and/or required.

Transition to virtual survivorship care

- Primary care providers and cancer survivors should be made aware of the potential for transition to virtual survivorship care.

RECOMMENDATION 11
Smoking cessation counselling is recommended for patients who have completed curative-intent therapy for NSCLC and SCLC. Although verbal cessation advice from a healthcare professional is of benefit, interventions that involve behavioural and pharmacotherapy support in addition to verbal advice is recommended.

RECOMMENDATION 12
Adult patients with lung cancer after curative-intent treatment living in Ontario should receive vaccinations as recommended by the Government of Canada [3]. The influenza and pneumococcal vaccine schedules for persons with chronic diseases, which includes cancer, or for immunocompromised persons should be followed. Further information can be found here: Canadian Immunization Guide - Canada.ca. The COVID-19 schedule for adults or

immunocompromised persons should followed. Further information can be found here: COVID-19 vaccine: Canadian Immunization Guide - Canada.ca.

RECOMMENDATION 13
Enrolling in an exercise or rehabilitation program is recommended.

IMPLEMENTATION CONSIDERATIONS

Patients in isolated areas or Indigenous populations may experience issues with accessing surveillance tests. Health care providers in the community-based setting might have more difficulty in following up a suspicion of recurrence than healthcare providers in the hospital-based setting. The cost of pharmacotherapy used in smoking cessation interventions may be a barrier for people on limited income. Currently, the pneumococcal polysaccharide vaccine is covered in Ontario, but the pneumococcal conjugate vaccine is not covered, which may influence patients' and healthcare providers' preferred vaccine. There may be issues with infrastructure in implementing exercise programs.

RELATED GUIDELINES

- Ontario Health (Cancer Care Ontario). Smoking Cessation Information for Healthcare Providers. Available from: https://www.cancercareontario.ca/en/guidelines-advice/cancer-continuum/prevention/smoking-cessation

FURTHER RESEARCH

Direct evidence from randomized controlled trials in adult patients with NSCLC or SCLC after curative-intent treatment are needed to provide a greater degree of certainty in the evidence to inform recommendations.

GUIDELINE LIMITATIONS

Systematic reviews were searched for some of the research questions and recent primary studies not included in systematic reviews may have been missed.

References

1. Schneider BJ, Ismaila N, Aerts J, Chiles C, Daly ME, Detterbeck FC, et al. Lung cancer surveillance after definitive curative-intent therapy: ASCO guideline. J Clin Oncol. 2020;38(7):753-66.
2. Cheung MC FB, Meti N, Thawer A, Shankar A, Loblaw A, et al. Person-centred virtual cancer care clinical guidance https://www.cancercareontario.ca/en/guidelines-advice/types-of-cancer/69581. 2022.
3. Government of Canada. Vaccines and immunization. Available from: https://www.canada.ca/en/public-health/services/immunization-vaccines.html.