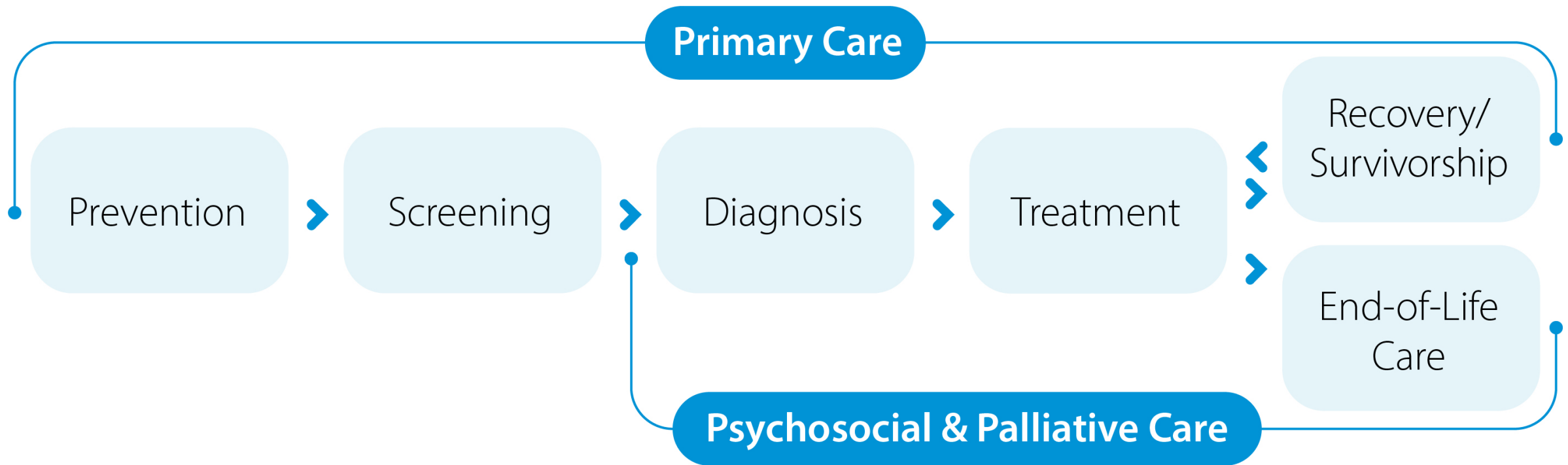


Lung Cancer Screening Pathway Map

Version 2023.04



Disclaimer: The pathway map is intended to be used for informational purposes only. The pathway map is not intended to constitute or be a substitute for medical advice and should not be relied upon in any such regard. Further, all pathway maps are subject to clinical judgment and actual practice patterns may not follow the proposed steps set out in the pathway map. In the situation where the reader is not a healthcare provider, the reader should always consult a healthcare provider if he/she has any questions regarding the information set out in the pathway map. The information in the pathway map does not create a physician-patient relationship between Ontario Health (Cancer Care Ontario) and the reader.



Ontario Health
Cancer Care Ontario

Target Population

Current and former smokers ages 55 to 74 who have smoked cigarettes daily for at least 20 years (not necessarily 20 years in a row) can be referred to the Ontario Lung Screening Program (OLSP) for risk assessment. People with a two percent or greater risk of developing lung cancer over the next six years (calculated using the PLCOm2012 risk prediction model) are eligible for lung cancer screening.












Pathway Map Considerations

- The OLSP provides high quality lung cancer screening free of charge for eligible people in Ontario. The OLSP was informed by the Ontario Lung Cancer Screening Pilot for People at High Risk. The following publication describes early results and design of the pilot including evidence considered for lung cancer screening in Ontario: Darling GE, Tammemägi MC, Schmidt H, Buchanan DN, Leung Y, McGarry C, Rabeneck L. Organized Lung Cancer Screening Pilot: Informing a Province-wide Program in Ontario, Canada. Ann Thorac Surg. 2021;111(6):1805-1811.
- For more information on the OLSP, refer to the [Lung Cancer Screening Information for Healthcare Providers website](#).
- Primary care providers play an important role in the cancer journey and should be informed of relevant tests and consultations. Ongoing care with a primary care provider is assumed to be part of the pathway map. For patients who do not have a primary care provider, [Health811](#) is a government resource that helps patients find a doctor or nurse practitioner.
- Throughout the pathway map, a shared decision-making model should be implemented to enable and encourage patients to play an active role in the management of their care. For more information see [Person-Centred Care Guideline](#) and [Evidence-Based Series \(EBS\) #19-2 Provider-Patient Communication](#).*
- Hyperlinks are used throughout the pathway map to provide information about relevant Ontario Health (Cancer Care Ontario) tools, resources and guidance documents.
- The term 'healthcare provider', used throughout the pathway map, includes primary care providers and specialists, e.g. family doctors, nurse practitioners, and other referring physicians.
- Psychosocial oncology (PSO) is the interprofessional specialty concerned with understanding and treating the social, practical, psychological, emotional, spiritual and functional needs and quality-of-life impact that cancer has on patients and their families. Psychosocial care should be considered an integral and standardized part of cancer care for patients and their families at all stages of the illness trajectory. For more information, visit [EBS #19-3](#).*








* **Note:** [EBS #19-2](#) and [EBS #19-3](#) are older than 3 years and are currently listed as 'For Education and Information Purposes'. This means that the recommendations will no longer be maintained but may still be useful for academic or other information purposes.

Pathway Map Legend



Colour Guide

	Primary Care
	Palliative Care
	Pathology
	Organized Diagnostic Assessment
	Surgery
	Radiation Oncology
	Medical Oncology
	Radiology
	Multidisciplinary Cancer Conference (MCC)
	Genetics
	Psychosocial Oncology (PSO)

Shape Guide

	Intervention
	Decision or assessment point
	Patient (disease) characteristics
	Consultation with specialist
	Exit pathway
	Off page reference
	Referral

Line Guide

	Required
	Possible

Pathway Map Disclaimer

This pathway map is a resource that provides an overview of the treatment that an individual in the Ontario cancer system may receive.

The pathway map is intended to be used for informational purposes only. The pathway map is not intended to constitute or be a substitute for medical advice and should not be relied upon in any such regard. Further, all pathway maps are subject to clinical judgment and actual practice patterns may not follow the proposed steps set out in the pathway map. In the situation where the reader is not a healthcare provider, the reader should always consult a healthcare provider if he/she has any questions regarding the information set out in the pathway map. The information in the pathway map does not create a physician-patient relationship between Ontario Health (Cancer Care Ontario) and the reader.

While care has been taken in the preparation of the information contained in the pathway map, such information is provided on an "as-is" basis, without any representation, warranty, or condition, whether express, or implied, statutory or otherwise, as to the information's quality, accuracy, currency, completeness, or reliability.

Ontario Health (Cancer Care Ontario) and the pathway map's content providers (including the physicians who contributed to the information in the pathway map) shall have no liability, whether direct, indirect, consequential, contingent, special, or incidental, related to or arising from the information in the pathway map or its use thereof, whether based on breach of contract or tort (including negligence), and even if advised of the possibility thereof. Anyone using the information in the pathway map does so at his or her own risk, and by using such information, agrees to indemnify Ontario Health (Cancer Care Ontario) and its content providers from any and all liability, loss, damages, costs and expenses (including legal fees and expenses) arising from such person's use of the information in the pathway map.

This pathway map may not reflect all the available scientific research and is not intended as an exhaustive resource. Ontario Health (Cancer Care Ontario) and its content providers assume no responsibility for omissions or incomplete information in this pathway map. It is possible that other relevant scientific findings may have been reported since completion of this pathway map. This pathway map may be superseded by an updated pathway map on the same topic.

Pathway Map Glossary

PLCom2012 Risk Prediction Model: A statistical risk prediction model that gives an estimate of someone’s risk (as a percentage) of developing lung cancer in the next 6 years.¹⁻²

Current smoker: Someone who has smoked a cigarette in the past 30 days.

Chronic obstructive pulmonary disease (COPD): A lung disease that includes chronic bronchitis and emphysema.

Incidental finding: An abnormality seen on a low-dose computed tomography (CT) scan that is not suspicious for or related to lung cancer.

Informed consent: Informed participation in lung cancer screening must be facilitated, which includes providing information on a potential participant’s risk of developing lung cancer, the benefits, harms and limitations of lung cancer screening, and possible scan outcomes and next steps.

Low-dose computed tomography (LDCT): A type of CT scan that uses much less ionizing radiation compared to conventional CT. CT scans are produced using specialized equipment and computer processing to create multiple thin cross-sectional images of the inside of the body.

Lung-RADS® (Lung CT Screening Reporting & Data System): A quality assurance tool developed by the American College of Radiology to standardize lung cancer screening CT reporting and management recommendations, reduce confusion in lung cancer screening CT interpretations and facilitate monitoring of participant outcomes. Lung-RADS® assessment categories and their corresponding OLSP management recommendations are:

Assessment Categories	Management Recommendations in the Ontario Lung Screening Program (OLSP)
Category 0 - Incomplete	Additional lung cancer screening CT images and/or comparison to prior chest CT needed LDCT in 1-3 months if inflammatory or infectious process suspected
Category 1 - Negative	LDCT in 12 months
Category 2 - Benign	LDCT in 12 months
Category 3 – Probably Benign	LDCT in 6 months
Category 4A - Suspicious	<i>Double read</i> LDCT in 3 months ³
Category 4B – Very Suspicious	Referral to lung diagnostic assessment ⁴
Category 4X – Very Suspicious	Referral to lung diagnostic assessment ⁴

Adapted from American College of Radiology Committee on Lung-RADS®. Lung-RADS Assessment Categories version 2022. Available at <https://www.acr.org/-/media/ACR/Files/RADS/Lung-RADS/Lung-RADS-2022.pdf>.

¹Tammemägi MC, Katki HA, Hocking WG, Church TR, Caporaso N, Kvale PA, Chaturvedi AK, Silvestri GA, Riley TL, Commins J, Berg CD. Selection criteria for lung-cancer screening. N Engl J Med. 2013 Feb;368:728-736.

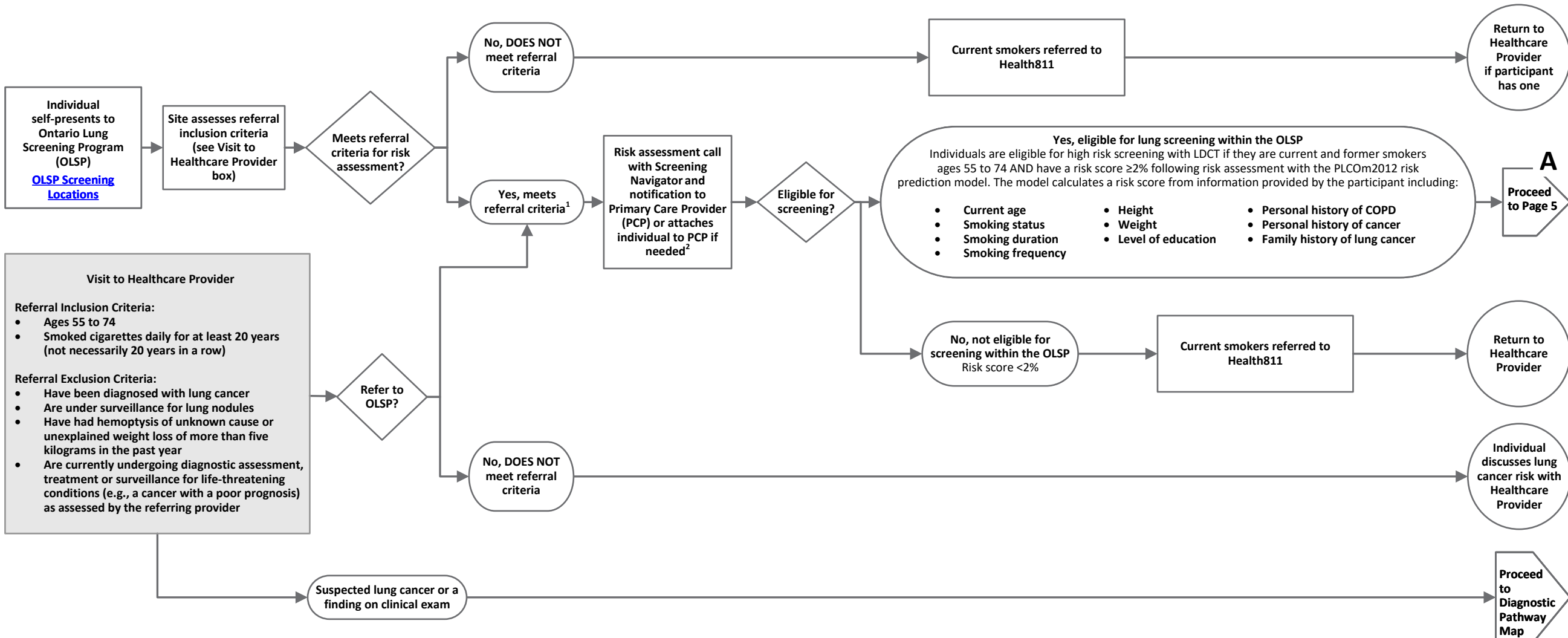
²Tammemägi MC, Darling GE, Schmidt H, Llovet D, Buchanan DN, Leung Y, Miller B, Rabeneck L. Selection of individuals for lung cancer screening based on risk prediction model performance and economic factors – The Ontario experience. Lung Cancer. 2021;156:31-40.

³Category 4A are recommended to be double read for consistency and after 3 month LDCT, w ill be downgraded to Category 1, 2 or 3 or upgraded to Category 4B or X.

⁴Category 4B and 4X are managed through organized diagnostic assessment (Chest CT, PET/CT and/or biopsy).

The pathway map is intended to be used for informational purposes only. The pathway map is not intended to constitute or be a substitute for medical advice and should not be relied upon in any such regard. Further, all pathway maps are subject to clinical judgment and actual practice patterns may not follow the proposed steps set out in the pathway map. In the situation where the reader is not a healthcare provider, the reader should always consult a healthcare provider if he/she has any questions regarding the information set out in the pathway map. The information in the pathway map does not create a physician-patient relationship between Ontario Health (Cancer Care Ontario) and the reader.

Screen for psychosocial needs, and assessment and management of symptoms. [Click here for more information about symptom assessment and management tools](#)

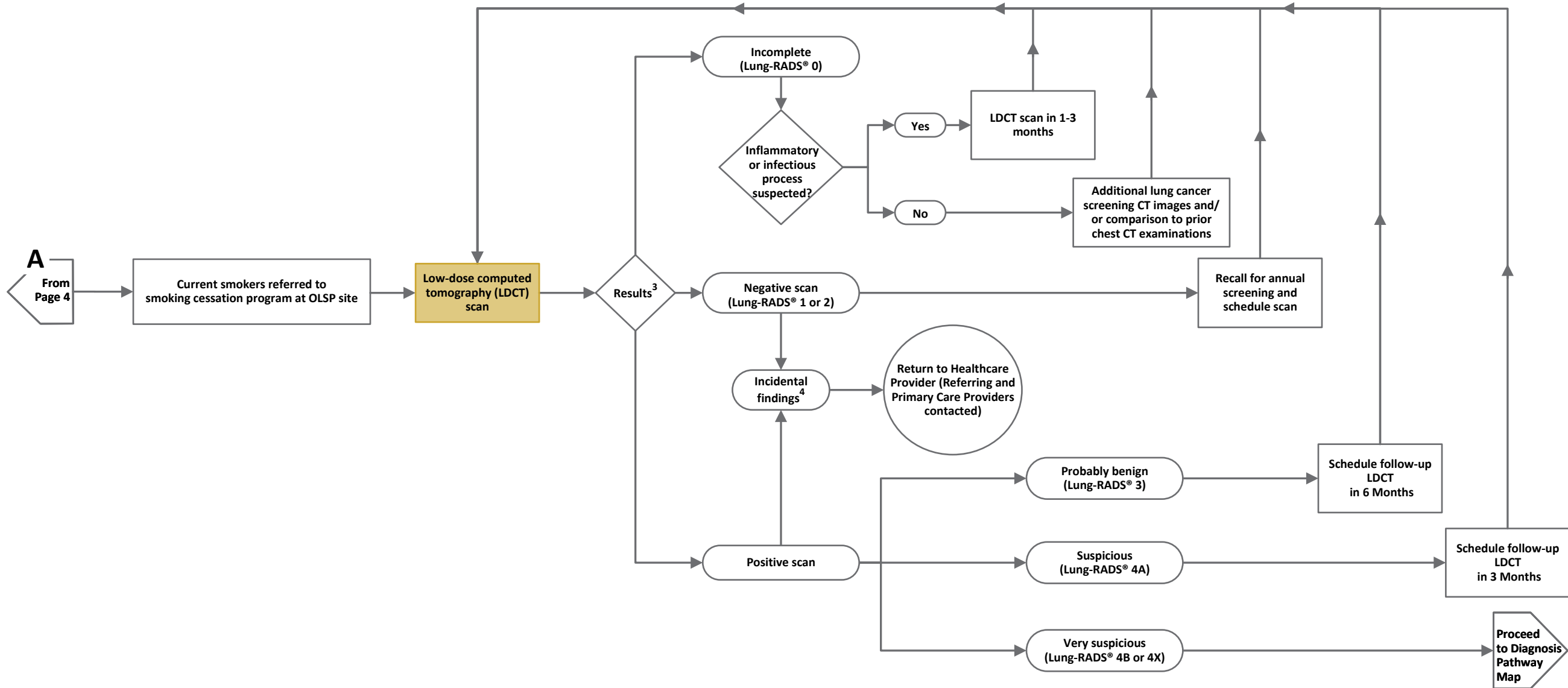


¹ If referral inclusion criteria met, physicians or nurse practitioners must complete the [Ontario Lung Screening Program Referral Form](#).

² A referral from a physician or nurse practitioner is required for participation in the OLSP to assess a person’s overall health to determine if screening is appropriate, for a participant to receive a low-dose computed tomography scan and to follow up on potential management of incidental findings.

The pathway map is intended to be used for informational purposes only. The pathway map is not intended to constitute or be a substitute for medical advice and should not be relied upon in any such regard. Further, all pathway maps are subject to clinical judgment and actual practice patterns may not follow the proposed steps set out in the pathway map. In the situation where the reader is not a healthcare provider, the reader should always consult a healthcare provider if he/she has any questions regarding the information set out in the pathway map. The information in the pathway map does not create a physician-patient relationship between Ontario Health (Cancer Care Ontario) and the reader.

Screen for psychosocial needs, and assessment and management of symptoms. [Click here for more information about symptom assessment and management tools](#)



³Radiologists report LDCT findings using the [LDCT Lung Cancer Screening Reporting Template](#) in accordance with the [Explanatory Notes: Ontario Lung Screening Program Reporting Template](#).

⁴The [Recommendations for the Management of Actionable Incidental Findings in the Ontario Lung Screening Program](#) provides additional support in determining 'actionability' of certain incidental findings.