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Overview of the program

What is the Alberta Lung Cancer Screening Program?

The Alberta Lung Cancer Screening Program (ALCSP) is a new 2-year pilot program funded through Alberta Health Services (AHS) and the Canadian Partnership against Cancer (CPAC). This initial phase of lung cancer screening will accept approximately 1,500 at-risk individuals aged 50 to 74 years old each year.

Eligible participants will undergo annual low dose computed tomography (LDCT) examinations, and lung nodule or possible lung cancer findings will be managed by the ALCSP.

Primary care providers in 3 participating Primary Care Networks (PCNs) will refer potentially eligible patients to the program, where a personalized lung cancer risk assessment will be performed. Individuals with a calculated risk of \geq 1.5% over 6 years will be scheduled by Diagnostic Imaging (DI) for an LDCT. Tobacco cessation support will also be provided as appropriate. Evaluation will be ongoing throughout the project to inform province-wide implementation, subject to funding approvals.

Why should I screen my patients for lung cancer?

- 1 in 13 Albertans are expected to develop lung cancer in their lifetime.
- Lung cancer is the leading cause of cancer deaths in Alberta, with 1,527 deaths in 2018.
- Smoking causes more than 8 out of 10 lung cancers
- Currently 7 out of 10 new diagnoses are advanced stage (III-IV), which are associated with low cure rates.
- In published studies and trials of organized screening programs, more than 70% of cases detected are stages I-II¹, which are associated with much higher cure rates.
- Large, randomized trials have demonstrated an almost **25% reduction** in lung cancer **mortality when patients are screened with LDCT**^{2, 3}.

Eligibility

Who is eligible for screening?

- Albertans between the ages of 50 and 74
- And who currently smoke cigarettes or quit smoking after smoking for many years.





The ALCSP uses a risk-based approach to lung cancer screening. Upon receipt of referral, the program will calculate the patient's individual risk. Patients with a lung cancer risk of ≥1.5% over 6 years will be invited for LDCT screening.

The ALCSP will be offered in 3 PCN locations during this initial pilot phase. Eligible Albertans will need to be referred to the program by primary care providers who belong to one of the following PCNs:

Location	Primary Care Network	AHS Diagnostic Imaging Site
Calgary	Mosaic PCN	Peter Lougheed Hospital
Edmonton	Edmonton O-day'min PCN	Royal Alexandra Hospital
Grande Prairie	Grande Prairie PCN	Grande Prairie Regional Hospital

Who is NOT eligible for screening?

- Albertans who are under the age of 50 or over the age of 74
- Patients who have a smoking history of less than 15 years
- Patients who do not belong to one of the above mentioned PCNs
- Patients who are demonstrating symptoms of lung cancer or have other clinical indications for chest CT examination symptomatic patients should be managed per current clinical processes
- Patients who have had a chest CT in the past 12 months

A patient should not be referred to the ALCSP if, in the opinion of the referring physician, the individual has a life expectancy of less than 10 years or significant comorbidities that would preclude aggressive treatment if lung cancer were detected. Examples may include but are not limited to:

- Prior invasive cancer diagnosis active or present in the past 5 years
- Severe heart or lung disease (NYHA III-IV, mMRC score grade 3-4, requiring home oxygen)
- ECOG performance status of II-IV





Risks

What are potential risks of LDCT screening?

Like other test or procedures, LDCT screening may have risks or unintended consequences. This may include:

- **Radiation dose from LDCT exams**: The radiation associated with this exam is similar to 6 to 12 months of natural environmental radiation, or about the same as getting 5 to 10 chest x-rays. The radiation dose is about 5 times less than for a standard chest CT. There is a very small chance that exposure to this additional radiation could lead to the development of a new cancer years later. This risk is felt to be very low compared to the benefits of detecting lung cancer early.
- **Early recall**: 5 to 8% of individuals will have abnormalities that are unlikely to be cancer but where an additional LDCT is recommended prior to the usual annual examination.
- False positive results: 2 or 3% of individuals will have findings concerning for lung cancer and will need additional tests, and in some cases biopsies or surgery. 1 to 2% will not be found to have lung cancer but would still have been exposed to the risks associated with these procedures. While our evaluation protocols aim to minimize such risks, they cannot be eliminated.
- **Over-diagnosis**: Some of the lung cancers diagnosed through screening may not have ever resulted in harm. This may be because they are slow growing and/or the patient has other health issues leading to death prior to a time when the cancer would have caused illness. Studies suggest that over a 10-year period, only 2 to 10% of screening-detected lung cancers are considered over-diagnosed, and current evaluation protocols have additional safeguards to reduce over-treatment of such lesions as much as possible.

Referral Process

How do I refer my patient for lung cancer screening?

- 1. Check your patient's screening eligibility during their next appointment using the lung cancer screening referral form.
- 2. Discuss the risks and benefits of lung cancer screening using the patient decisionmaking tool to help your patient make an informed decision.
- If your patient is still smoking cigarettes, ask if they need tobacco cessation support. If yes, refer them to your PCN Tobacco cessation program or to the AHS Helpline at 1-866-710-7848.
- 4. If they meet initial eligibility requirements, **complete and fax the referral form** to the **ALCSP (1-888-944-3388).**





The ALCSP Nurse Practitioner will confirm their eligibility and send a requisition to AHS Diagnostic Imaging to schedule an appointment for a low-dose CT (LDCT). Appointment set-up and any appointment changes will be handled by AHS Diagnostic Imaging. Both you and your patient will receive notification of eligibility.

How can I connect my patient to tobacco cessation?

Quitting smoking is the best step someone can take to prevent lung cancer. Each PCN may have different tobacco cessation supports available. We encourage you to find out what supports are available at your PCN.

You can offer your patient pharmacotherapy in addition to referring them to a tobacco cessation program.

- Counselling support: Check if your PCN offers counselling support or encourage your patient to call 1-866-710-7848 to ask about personal 1-on-1 counselling support. It's free for Albertans and available seven days a week from 8 am to 8 pm.
- Text support: Text ABQUITS to 123456.
- **Group support:** Call 1-866-710-QUIT (7848) and ask about QuitCore, a group to help you quit smoking.
- Website: AlbertaQuits (<u>albertaquits.ca</u>) provides resources to support people in quitting or reducing smoking.
- Traditional tobacco is an important part of many Indigenous cultures. It is considered one of four sacred medicines (along with cedar, sage and sweetgrass) given by the Creator. For more information on traditional tobacco, visit <u>Traditional tobacco and</u> <u>commercial tobacco (alberta.ca)</u>

Results

How will my patient get their result?

Your patient will receive a letter in the mail from the ALCSP informing them of their result and the recommended next steps. Patients can also sign up for MyAHS Connect, a secure, online tool that lets them see some of their AHS health information.

In the case of **unclear or abnormal results**, the ALCSP Nurse Practitioner will also call the patient to discuss the results and answer any questions. You may want to contact your patient to discuss their results.





How will I receive my patients' results?

You will receive the usual radiologist CT report on all patients, and you will be copied on the patient's results letter.

What are the possible results?

LDCT examination results will be categorized as per the Lung-RADS system⁴.

Normal results (Lung-RADS 1 or 2): This means that nothing abnormal was found in the scan. In many people, very small spots are seen on the lungs which are unlikely to be cancer and are considered normal (Lung-RADS 2). It is still important for your patient to get screened every year they remain eligible. The ALCSP will generate a new LDCT requisition for the appropriate date and an examination will be scheduled by the AHS Diagnostic Imaging department with the patient. Patients with outstanding screening follow-up status will receive a letter reminding them to book another screening appointment with the AHS Diagnostic Imaging department as soon as possible.

Unclear results (Lung-RADS 3): In some people, small spots are seen on the lungs that are unlikely to be cancer, but still concerning enough that we do not want to wait one year to check on them again. These results will be reviewed by the ALCSP Nurse Practitioner, who will in most cases coordinate another LDCT in 3 to 6 months to make sure the abnormality is stable.

Abnormal results (Lung-RADS 4a, 4b or 4x): This means a concerning lesion has been found on the lungs. It may or may not be a cancer, but other tests will be needed to determine this. These results will be reviewed by the ALCSP Nurse Practitioner. In some cases, a short term 3-month LDCT will be arranged. In other cases, a referral will be sent to the Alberta Thoracic Oncology Program to complete the required investigations and treatments.

If your patient has **unclear or abnormal results**, the ALCSP Nurse Practitioner will call the patient to discuss their results, answer any questions and help them to develop a care plan.

Incidental findings: LDCT screening may occasionally detect non-lung cancer-related abnormalities in the lungs or other organs. These will be described in detail in the radiologist report. The patient will be notified of these findings and told to schedule an appointment with their primary care provider to discuss further.

What are my responsibilities regarding screening results?

Any lung nodule or possible lung cancer findings on LDCT screening **will be managed by the ALCSP**. You're free to discuss such findings with your patient and the ALCSP will keep you





informed of management plans. To avoid duplication, please **do not** request investigations or referrals for such findings.

Referring providers will take responsibility for any required assessments and investigations for **incidental findings**. These will be communicated to you in the radiologist report, and screening participants will be told to schedule an appointment with you to discuss further.

Other important information

What else can my patients do to reduce the risk of lung cancer?

Lung cancer has many causes. Smoking cigarettes isn't the only cause. Other risks include exposure to radon, asbestos, and outdoor air pollution. And some people have something in their genes that makes them more likely to develop lung cancer. Screening based on this exposure is not eligible at this time.

For more information, visit myhealth.alberta.ca (search "radon") and evictradon.org

How can I support my patient manage the stigma sometimes associated with lung cancer?

People who have lung cancer often deal with stigma. Stigma describes the negative attitudes that we have toward someone or something that we see as unacceptable or undesirable. It's often based on unfair or inaccurate beliefs.

Lung cancer carries stigma today mainly because of its connection to smoking. Smoking is the main risk factor for lung cancer (and many other diseases). Research has shown that many people think people with lung cancer should have known better than to smoke and that they're to be blamed for getting the disease.

People who have never smoked can develop lung cancer. Because smoking is so closely connected to lung cancer, even people with the disease who don't smoke can also feel the effects of stigma.

For more information, visit Lung cancer and stigma | Canadian Cancer Society

For more information, contact the Alberta Lung Cancer Screening Program:

Phone: 1-866-727-3926 Email: <u>alcsp@ahs.ca</u>

Website: Home - Screening For Life | Screening For Life





References:

1. Tammemagi MC, Schmidt H, Martel S, et al. Participant selection for lung cancer screening by risk modelling (the Pan-Canadian Early Detection of Lung Cancer PanCan study): a single-arm, prospective study. Lancet Oncology 2017; 18: 1523-1531. DOI: 10.1016/s1470-2045(17)30597-1.

2. Aberle DR, Adams AM, Berg CD, et al. Reduced lung-cancer mortality with low-dose computed tomographic screening. The New England Journal of Medicine 2011; 365: 395-409. 10.1056/NEJMoa1102873 doi.

3. de Koning HJ, van der Aalst CM, de Jong PA, et al. Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial. N Engl J Med 2020; 382: 503-513. 2020/01/29. DOI: 10.1056/NEJMoa1911793.

4. ACoR. Lung CT screening reporting & data system Lung-RADS Version 1.1., https://www.acr.org/Clinical-Resources/Reporting-and-Data-Systems/Lung-Rads (2019, accessed July 22 2021).



