BC CANCER LUNG SCREENING
Provincial Health Services Authority

BC Cancer Lung Screening Standards and Protocols

Date: March 2023

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Guidance Document – Lung Standards and Protocols
Lung Screening Program

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Contributors

Please see Appendix A.

About BC Cancer

BC Cancer, an agency of the Provincial Health Services Authority, provides a comprehensive cancer control program for the people of BC in partnership with regional health authorities. This includes prevention, screening and early detection programs, research and education, and care and treatment.

BC Cancer's mandate is a three-fold mission:

- To reduce the incidence of cancer
- To reduce the mortality rate of people with cancer
- To improve the quality of life for people living with cancer

This mission drives everything we do, including providing screening, diagnosis and care, setting treatment standards, and conducting research into causes of, and cures for cancer.

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1. Introduction

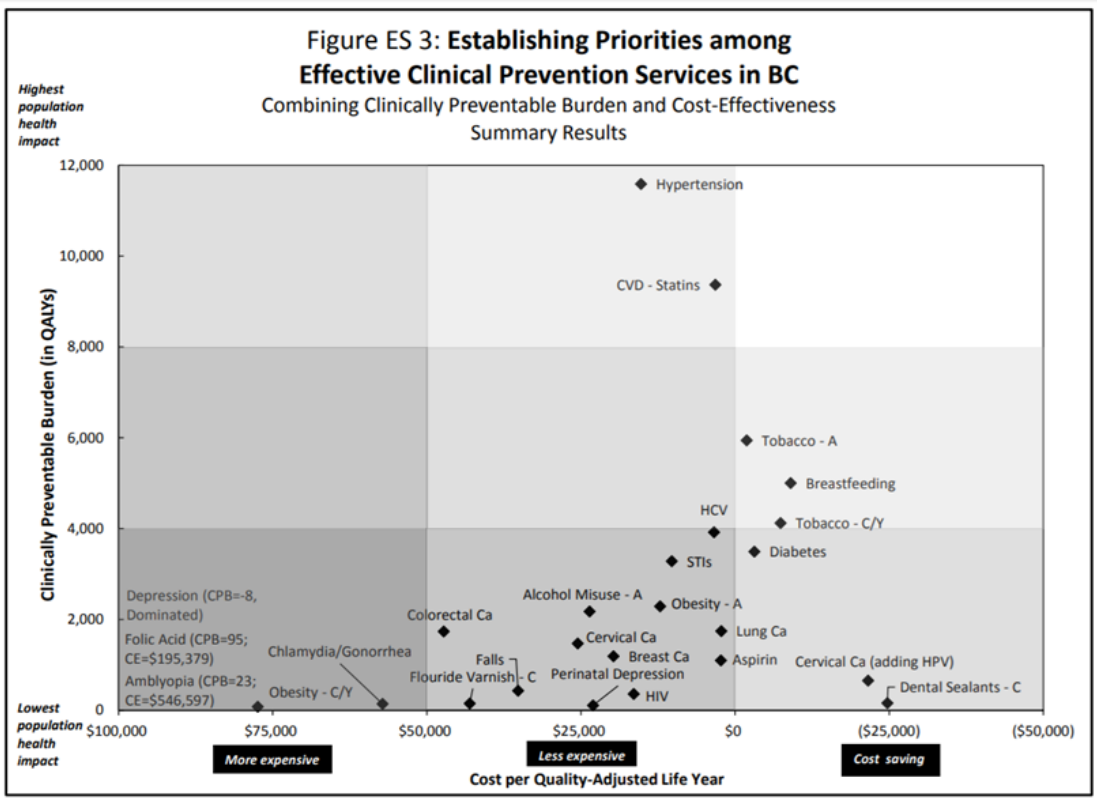
1.1 Lung Screening Program

Lung cancer kills more people than colon, breast, and prostate cancers combined. (CMAJ 2020 March 2). If lung cancer is detected in its earliest stage, the 5-year survival is 80% or more. Unfortunately, 70% of all lung cancers are diagnosed at advanced stages. At 22%, the five-year net survival for lung cancer is among the lowest of all types of cancer. (*Canadian Cancer Statistics 2021)*

The Canadian Task Force on Preventive Health Care (CTPHC) and British Columbia's Lifetime Prevention Schedule (LPS) recommend lung cancer screening for high-risk adults aged 55-74. Lung cancer screening is considered highly cost-effective (Canadian Cancer Statistics Advisory Committee. Canadian Cancer Statistics: A 2020 special report on lung cancer. Toronto, ON: Canadian Cancer Society; 2020). (Figure 1: The Lifetime Prevention Schedule - Establishing Priorities among Effective Clinical Prevention Services in British Columbia: March 2021)

For former smokers, screening is one of the best options to reduce their risk of dying from lung cancer.

Figure 1 – Cost-effectiveness of Lung Cancer Screening

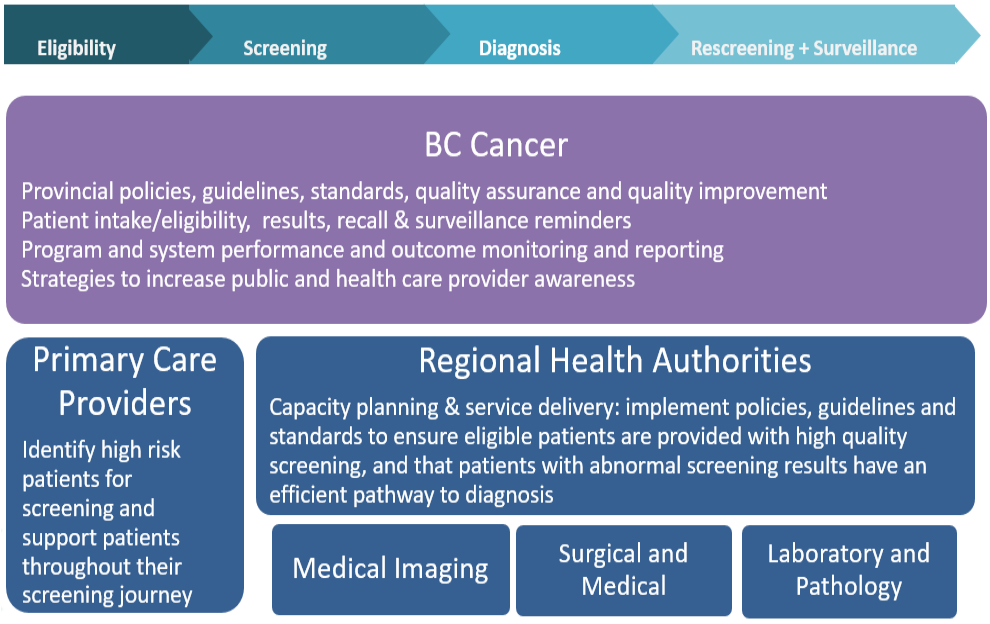


1.2 Purpose of the Standards

The purpose of developing Lung Screening Standards is to maximize participant safety and program efficiency and efficacy. Standardization of Lung Screening will support ongoing quality improvement to reflect current best practices in the field. Furthermore, by improving the communication amongst health care providers and participants regarding appropriate screening activities, the benefits of screening can be maximized, and potential harms of screening can be minimized.

Program Overview

In British Columbia, organized screening programs are established following the provincial cancer screening framework.



BC Cancer oversees the provincial cancer screening programs in British Columbia, which include breast, cervix, colon and lung. Organized screening programs are designed to ensure eligible populations have an opportunity to participate in high quality screening, and if the screening result is abnormal, the patient is provided with the appropriate recommendation for further testing and follow-up. An organized lung screening program supports:

- development of provincial policies, guidelines and standards for screening,
- strategies to increase public and health care provider awareness,
- strategies to address disparities in access, service and outcomes,
- correspondences to eligible British Columbians about results, follow-up and rescreening,
- fast track referral to diagnostic centers in local health region for findings suspicious of lung cancer,
- smoking cessation counseling for clients who are still smoking and referral to primary care providers for pharmacotherapy to optimize quit rate,
- quality assurance and quality improvement, and,
- reporting and monitoring of system performance and screening outcomes.

Regional health authorities (RHAs) are responsible for the planning and delivery of healthcare services within their geographic areas. RHAs and clinicians work with BC Cancer to implement policies, guidelines and standards to ensure eligible patients in BC are provided with high quality screening, and that patients with an abnormal screening result have an efficient pathway to diagnosis.

Primary care providers play the important role of identifying patients at risk and referring them to screening programs, and to support patients throughout their screening journey such as providing pharmacotherapy for smoking cessation and management of incidental findings to improve the general health of patients.

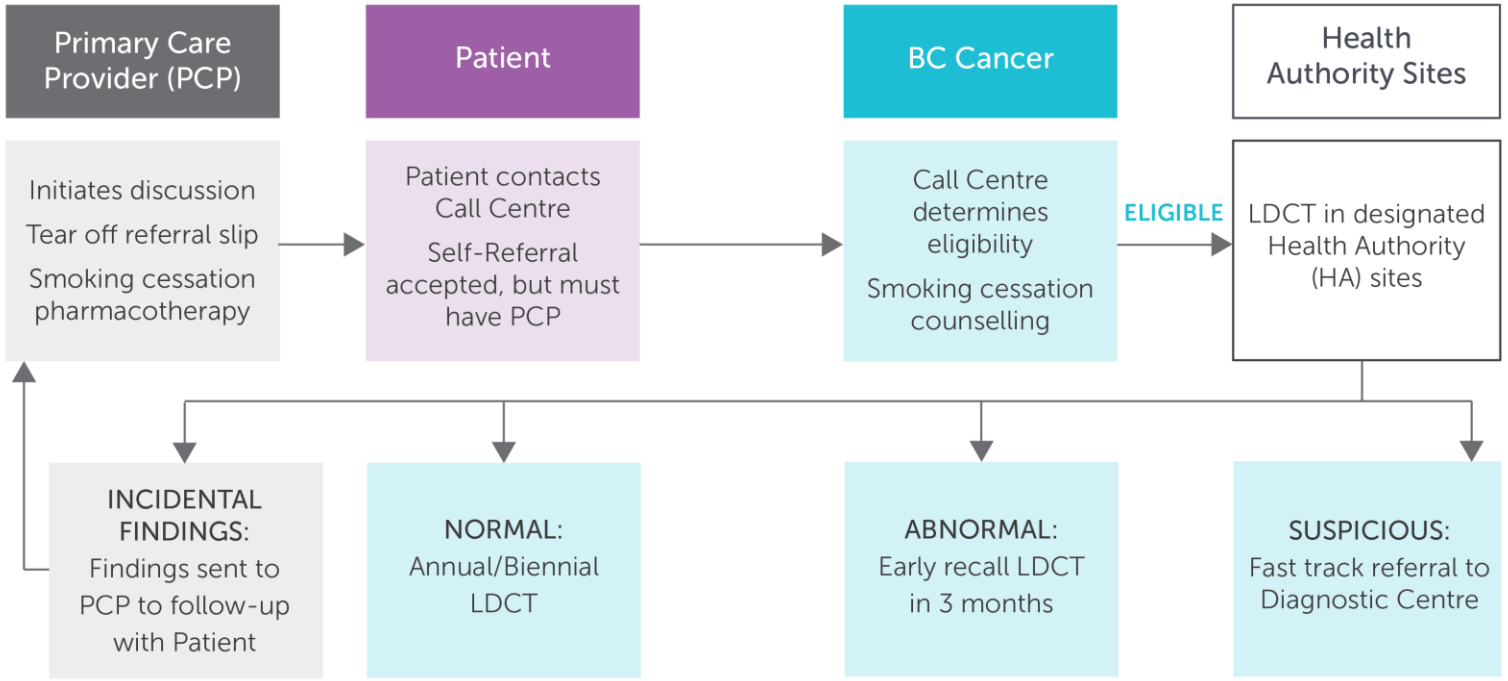
In addition, BC Cancer participates in Pan-Canadian Cancer Screening networks, hosted by the Canadian Partnership Against Cancer (CPAC) that leverages expertise around the country and makes use of evidence to support policy decisions and best practices in cancer screening.

The provincial Cancer Screening Partnership Framework has enabled British Columbia to provide internationally recognized population-based Breast, Cervix and Colon Screening Programs. The provincially led and regionally delivered model will minimize health inequity in lung cancer screening in the population.

2. Lung Screening Pathway

BC CANCER LUNG SCREENING
Provincial Health Services Authority

Lung Screening Program Flowchart



Lung Screening Eligibility

- Between 55 and 74 years of age;
- Currently smoking or have smoked in the past; and
- Have a smoking history of 20 years or more.

Role of Primary Care Providers:

- Support decision making and recommend lung screening if appropriate;
- Support smoking cessation; and,
- Support with follow-up of incidental findings and abnormal results.

* Please do not request LDCT scans for lung screening directly from the hospital/clinic. Instead, have eligible patients call the Lung Screening Program: 1-877-717-5864.

2.1 Intake and Eligibility

The Lung Screening Program is available to individuals between the ages of 55 and 74 with at least a 6-year lung cancer risk of 1.5% as estimated by the PLCOm2012 Lung Cancer Risk Prediction model. Risk variables in the model are age, education (proxy for socioeconomic status), family history of lung cancer, body mass index, chronic obstructive pulmonary disease (COPD), smoking duration, smoking intensity, smoking quit time (if any), personal history of cancer and race or ethnicity. Patients with symptoms suspicious for lung cancer, those with major co-morbidities such as severe chronic obstructive pulmonary disease, congestive heart failure, renal failure on dialysis, previous lung cancer or other cancers on active treatment and follow-up should not be referred for screening.

2.1.1 Accessing the Program

HCPs are provided with tear-off pads to give to individuals who have ever smoked for 20 years or more between ages 55 to 74 to encourage them to call the BC Lung Screening Program (1-877-717-5864) to complete a detailed risk assessment with the screening center navigators to confirm their eligibility. A FAX referral form may also be used for any patient who the HCP considers may experience barriers to self-referral (e.g. language barrier, screening hesitancy). Individuals may self-refer but they must have an attached HCP as patients who are still smoking will be asked to return to see their HCP to discuss pharmacotherapy and management of incidental findings.

2.1.2 Risk Assessment

Risk assessment and patient intake will be centralized through a provincial call centre. A BC Cancer Lung Screening Navigator will conduct an interview to determine eligibility and will help to support the patient's informed decision-making. Information on the benefits and harms of screening, and smoking cessation referral for people who are still smoking will be provided.

Inclusion Criteria

- Ages 55 to 74 years;
- Has a health care provider;
- Smoking history;
- Willing and able to undergo LDCT; and,
- PLCOm2012 risk of ≥1.5% over 6 years.

Exclusion Criteria

- Prior history of lung cancer
- Major co-morbidities such as severe chronic obstructive pulmonary disease, congestive heart failure, renal failure on dialysis, other cancers on active treatment or follow-up.
- Weight exceeds CT scanner restrictions (>450lbs)
- Unable to lie flat and hold arms above the head for a CT scan

Individuals who do not currently meet the risk threshold of ≥1.5% may be reassessed as they age or as smoking history changes over time at two year intervals.

2.1.3 Referral Process for Low Dose CT Scan

Upon successful update or completion of the intake interview process, BC Cancer will send an electronic CT scan referral to a regional HA Medical Imaging (MI) department that meets the provincial requirements for lung cancer screening nearest to, or at the choice of the participant.

2.1.4 LDCT Scanning Sites

Health Authority	LDCT Hospital	City
Northern Health	* University Hospital of Northern BC	Prince George
	Dawson Creek and District Hospital	Dawson Creek
	Fort St John Hospital	Fort St John
	Prince Rupert Regional Hospital	Prince Rupert
	GR Baker Memorial Hospital	Quesnel
	Bulkley Valley District Hospital	Smithers
	Mills Memorial Hospital	Terrace
Interior Health	* Kelowna General Hospital	Kelowna
	Penticton Regional Hospital	Penticton
	Vernon Jubilee Hospital	Vernon
	Shuswap Lake Hospital	Salmon Arm
	Royal Inland Hospital	Kamloops
	Cariboo Memorial Hospital	Williams Lake
	Kootenay Lake Hospital	Nelson
	Kootenay Boundary Hospital	Trail
	East Kootenay Regional Hospital	Cranbrook
Vancouver Coastal	* Lions Gate Hospital	North Vancouver
	qathet General Hospital	Powell River
	Sechelt Hospital	Sechelt
	UBC Hospital	Vancouver
	Whistler Health Care Centre	Whistler
Fraser Health	* Abbotsford Regional Hospital	Abbotsford
	* Ridge Meadows Hospital	Maple Ridge
	* Jim Pattison Outpatient Centre	Surrey
	* Royal Columbian Hospital	New Westminster
	Eagle Ridge Hospital	Port Moody
	Langley Memorial Hospital	Langley
	Chilliwack General Hospital	Chilliwack
Island Health	* Royal Jubilee Hospital	Victoria
	Victoria General Hospital	Victoria
	Saanich Peninsula Hospital	Saanichton
	Cowichan District Hospital	Duncan
	* Nanaimo Regional General Hospital	Nanaimo
	* North Island Hospital	Comox Valley
	North Island Hospital	Campbell River

Sites with a * are also the HA reading site

2.2 Smoking Cessation Services

The screening program will provide brief smoking cessation counseling over the telephone and send health literacy and culturally appropriate educational materials for smoking cessation that will include an option for an individual to contact the QuitNow program for additional telephone counseling support and nicotine replacement that is free for 3 months in BC. Those who are still smoking in the prior 30 days will be referred to their primary care providers for pharmacotherapy with Varenicline or a combination of Varenicline and nicotine patch. HA's with existing smoking cessation services will also be listed as a resource option for those who are still smoking to contact and receive assistance in smoking cessation.

2.2.1 Provider Recommendation for Smoking Cessation

Lung screening participants will provide their current smoking status at the time of program intake and risk assessment. All provider lung screen reports will include the participant's current smoking status as well as a recommendation to have a discussion with their primary care provider regarding pharmacotherapy options for those who indicate that they are dependent on nicotine.

2.2.2 Smoking Cessation Resources for Providers

Resources for providers are available on the BC Smoking Cessation Program website.

3. LDCT Booking Protocol

RHA Lung screening sites will receive the LDCT referral requisition from the screening program. The P90 target is that 90% of participants will have a LDCT scan appointment date within 30 days of receiving the referral.

4. Low Dose Computed Tomography Acquisition

LDCT images will be acquired at designated sites following strict adherence to program standards in personnel training and qualifications, image acquisition and image processing to ensure a high quality service.

4.1 Accreditation of LDCT Screening Sites

BC Lung Screening Program requires current Diagnostic Accreditation Program (DAP) accreditation status of all sites that participate in the screening program.

4.2 Standards for Radiologists

Prior to beginning	• 300 chest CT over the 36 months prior to beginning with demonstrated interest in Thoracic Imaging, or Thoracic Imaging Fellowship (ideal)
Mandatory training	• Completes Program orientation, Lung Nodule Management Learning Modules and CAD orientation • Successful completion of LDCT test set prior to commencing reading. Completes Program orientation, Lung Nodule Management Learning Modules and CAD orientation • Attend a case review workshop during the first four months • A minimum of 15 active CPD credits annually, 7.5 of which must be accredited specific to lung cancer • CT techs invited to participate in any provincial education forums
Minimum number of annual exams to be read by radiologist	• Read >500 screening LDCTs per year after the first year with the exception of Northern Health Authority as volumes may be lower to start • Minimum of 2 radiologists per reading HA to ensure reading coverage during absences and vacations • Available volume should be evenly distributed amongst qualified screening radiologists
Participation in continuing education – CME	• Adopt CAR CME guidelines • Attend provincial educational forum meeting to include diagnostic group, technologists, physicists to ensure team approach • Adhere to the Maintenance of Certification (MOC) program of the Royal College of Physicians and Surgeons of Canada
Peer review, double read	• Participate in local MDT review to triage cases for workup
Report turnaround time	• P90 <14 days

4.3 Radiology QA

- Retrospective reviews of abnormal cases quarterly
- Screener stats to include lists of abnormal cases for the previous year, false positive and false negative rates; workup summary sheets to be reviewed to support quality audit process

4.4 CT Equipment Requirements and Acquisition Protocol

A quality assurance program has been established to ensure the attainment of intended quality in accordance with the BC Diagnostic Accreditation Program Accreditation Standards for Computed Tomography. The Lung Screening program has developed the following CT acquisition protocols for the imaging professionals involved in the program:

Low Dose CT Acquisition Protocol

The AAPM Lung Cancer Screening CT Protocols Version 5.0 are available for reference and additional guidance including manufacturer's low dose chest protocols.

- All Lung Screen LDCT images will be forwarded by PACS to the CAD volumetric software for pre-processing prior to reporting by the Program radiologist.
- CT Departments should review and apply the manufacturer's Lung Low Dose Protocol relevant to their specific CT scanner model.
- Coronal, sagittal and soft tissue reformats should be created and saved to PACS for possible future review by clinicians during diagnostic follow-up.

BC Cancer Lung Screening Program – Equipment and Acquisition Protocols	
CT Equipment	• Minimum 16 slice CT capable of low radiation dose; 64 detectors or greater preferred • Volumetric software should be used • Software updates should be recorded • CAD should only be used in a concurrent or second reader format
CT Protocol Name	• BCC LDCT Lung Screen
Exposure Factors	• Below 2 mSv for average size patient, with adjustments made for larger or smaller patients
Gantry Tilt	• Gantry tilt is not allowed
Slice Thickness	• ≤1.25 mm contiguous
Breathing Instructions	• Scanned at full inspiration
Localizer	• Sites should be used at their localizer following their vendor recommendations

Volumetric Analysis	• Nodules should be measured using semi-automated volumetry
Image Reconstruction	• Send the transverse image set to Veolity for CAD processing. • Coronal and sagittal reformats should be created and saved to PACS for possible future review by clinicians during diagnostic follow up. • Reconstructed slices at a minimum must be contiguous. • Coronal and sagittal reformats should be created and saved to PACS for possible future review during diagnostic follow up. • Review and apply your CT scanner manufacturer Convolution Kernel recommendations for their "Lung Low Dose Protocol". • Dose modulation should be used. • Maximum reconstructed slice thickness of 1.25mm or less recommended. • The AAPM Lung Cancer Screening CT Protocols Version 5.0 includes manufacturer lung screening protocols
Reconstructed Image Interval	• Shall set the reconstructed image interval to less than or equal to the Reconstructed Image Thickness (i.e. no gap, may have overlap).
Edge Enhancement	• Shall validate that the protocol does not result in edge enhancement exceeding 5%. • Do not use excessive edge enhancement, Veolity performs best with softer kernels.
Patient Height and Weight	• Self-reported height and weight must be collected at time of exam and entered into the DICOM header. This information is used by the physicist for dose monitoring calculations.

4.5 Quality Assurance

Adherence to the BC Diagnostic Accreditation Program (DAP) minimum required CT Exam and Image Quality Review process. Daily, weekly, monthly, semi-annual and annual quality control procedures are established to ensure the attainment of intended image quality. An assessment of radiation dose is performed annually.

A QIBA phantom image should be performed annually by the site physicist and sent to Accumetra for image assessment. Any deficiencies should be addressed by the site biomedical department as soon as possible.

5. LDCT Lung Screen Reporting and Patient Management

Lung Screen reporting will occur at designated sites by program approved radiologists utilizing program approved volumetric computer aided detection (CAD) software. Radiologists will be trained to report lung screening studies using the Pan Can Lung nodule management protocol for the baseline (first) LDCT and volumetric protocol when two or more LDCTs are available following BC standardized reporting format (BC Lung Screening Protocol version 1).[2,3]

Category Descriptor	Category	Findings		Management
		Baseline	Follow-up	
Routine Biennial Surveillance	1	No Nodules		LDCT reported as within normal limits. *Return to screening in two years*
		Completely calcified or nodules with central or lamellated calcification Perifissural nodule <10mm		
		Solid, part-solid, cystic[a] or non-solid nodule(s): **Nodule risk score < 1.5%**		
Routine Annual Surveillance	2	Solid, part-solid, cystic[a] or non-solid nodule(s): **Nodule risk score 1.5% to <5%** Perifissural nodule ≥10mm Fat containing nodule Nodule containing popcorn calcification	New solid, cystic[a] or part-solid[(b)] nodule(s): Volume < 30 mm3	LDCT reported as very low malignancy risk. *Return to screening in one year*
			Existing solid, cystic[a] part-solid[(b)] or non-solid nodule(s): **VDT© > 600 days** New non-solid nodule ≤8mm	
Early Recall	3	Solid, part-solid, or non-solid nodule(s): **Nodule risk score 5% to <30%**	New solid, cystic[a] or part-solid[(a)] nodule(s): **Volume 30 mm3 to < 200 mm3** New non-solid nodule >8 mm	LDCT reported as low malignancy risk. *Repeat LDCT in 3 months.*
			Existing solid, cystic[a] part-solid[(b)] or non-solid nodule(s): **VDT© 400 to 600 days** Non-solid nodule: New solid component ≥ 113mm3 but <268 mm3	
Diagnostic Referral	4	Solid, part-solid, or non-solid nodule(s): **Nodule risk score ≥ 30%**	New solid or part-solid[(b)] nodule(s): Volume ≥ 200 mm3 (d)	LDCT reported as suspicious findings. *The program will arrange diagnostic work-up referral.*
			Existing solid, cystic[a] part-solid[(a)] or non-solid nodule(s): **VDT© < 400 days** Non-solid nodule: New solid component ≥ 268 mm3	
	5	Endobronchial nodule(s)		
Other Actionable Incidental Findings		May add on to category 1-5		As appropriate to the specific finding

Notes for use:

a. Refers to the solid component of a part-solid nodule.

b. VDT = Volume doubling time since first occurrence (VDT1st)

c. New solid, part-solid or non-solid nodule(s) >500 mm^3 or nodule clusters can be due to inflammation/infection. Consider short-term follow-up in 2 to 3 months before biopsy.

Radiology Report Guidelines

- Lung Screening studies should be reported within 14 days of the exam date
- Review availability of any relevant previous CT scans
- Check family history of lung cancer in Veolity. Family history is available on the BC Cancer CT Referral Requisiton
- Complete measurement of all significant lung nodule lesions in Veolity, up to a maximum of six
- Document any incidental findings
- Classify part solid and non-solid nodules, indicate spiculation if present
- Include Segment location for each reported nodule
- The Impression is a mandatory field. This information will go directly into the health care provider results letter
- A minimum Impression summary should be narrated for each of the possible Category results:

  CAT 1 Impression = Normal findings

  CAT 2 Impression = Low chance of cancer

  CAT 3 Impression = Early recall LDCT to be arranged by screening program

  CAT 4/5 Impression = Abnormal Screen. Fast track diagnostic work-up referral to be arranged by screening program

  Describe follow up of any actionable incidental findings

5.1 Duration of Nodule Follow-up

- Solid nodules require annual follow-up for 2-years to ensure stability
- Sub-solid nodules ≥6 mm require annual follow-up for 5 years to ensure stability

5.2 Duration of Screening

Continue annual/biennial screening for those with no new nodule or stable prevalent lung nodules until the upper age limit of 74 or they are no longer eligible for screening due to development of health problems that substantially limits life expectancy or the ability or willingness to have curative treatment.

5.3 Management of Incidental Findings

It is the responsibility of the health care provider to provide management of all incidental findings. The screen report will include any incidental findings noted on the LDCT screen and will include a follow up recommendation for any actionable findings.[4,5,6]

Incidental Findings	Recommendation
Coronary Artery Calcification: Moderate/Severe	• Optimize cardiac risk factors If Symptomatic: coronary artery disease workup or Cardiology consultation
Aortic Valve Calcification: Moderate or severe	• Echocardiogram to rule out aortic stenosis • Cardiology consultation if indicated
Main Pulmonary Artery	• >30 mm, consider cardiology or pulmonary consultation
Pulmonary Emphysema	• If moderate/severe or symptomatic, spirometry pre- and post-bronchodilator • Optimise COPD management • Respirologist consultation if indicated
Pulmonary fibrosis	• >5% in any lung zones (upper, mid, lower) – Full pulmonary function test. • Respirology consultation if abnormal
Bronchiectasis	• Respirology consultation if symptomatic
Pleura	• New effusion or mass, consider pulmonary consultation
Renal abnormality	• Abdominal ultrasound or CT if not cystic
Adrenal nodule	• Abdominal CT with adrenal protocol if enlarging or ≥10 mm and ≥10 HU • Contrast enhanced adrenal CT or MRI; consider biopsy if >4 cm • Biochemical test if clinical signs or symptoms of pheochromocytoma or Cushing's syndrome
Breast Masses	• Diagnostic Mammography indicated
Thyroid Nodule	• >15 mm long axis: clinical evaluation and thyroid ultrasound
Anterior mediastinal nodule/mass	• Contrast enhanced CT or urgent surgical referral depending on size, margin characteristics
Esophagus	• Large hiatus or dilated esophagus: clinical evaluation
Aggressive Bony Lesion	• Consider Nuclear Medicine Scan

[4] ACR white papers on incidental findings on thoracic CT.
https://publish.smartsheet.com/42d18e874a164318a0f702481f2fbb70
[5.] Management of Incidental Adrenal Masses: ACR White Paper. JACR. 2017;14.
[6]Recommendations for the Management of Incidental Pancreatic Findings in Adults by the Canadian Association of Radiologists Incidental Findings Working Group. 2022;73(2):312-319.

5.4 Diagnostic Investigation

BC Cancer will communicate abnormal LDCT result and follow-up recommendations with the provider and patient, and facilitate diagnostic referral to the designated health authority thoracic clinics. Group representatives for respirology or thoracic surgery in each HA are listed in section 5.7 for patients that require urgent consultation and diagnostic work-up.

If a biopsy is performed, the result will be forwarded to BC Cancer Screening by RHA Pathology for outcome evaluation.

After completion of follow-up investigation, the respirologist or thoracic surgeon will discuss results and next steps with the patient.

Primary care providers will be kept informed throughout the diagnostic pathway.

5.5 Diagnostic Investigation Sites

The initial RHA sites listed below and the referral mechanism for diagnostic work-up of lung nodules suspicious for lung cancer have been identified to have the expertise and infrastructure for biopsy of small early lung cancers. Each of these hubs will develop their own Multidisciplinary Team triage process that includes the hub lung radiologists, respirologists and thoracic surgeons. The triage process by the hub team may include referrals to spoke sites for procedures such as CT guided transthoracic lung biopsy and pulmonary lung function test closer to home for the patient.

Health Authority	Hospital	Referral Group
Northern Health	University Hospital of Northern BC	Northern BC Respirology Clinic
	Mills Memorial Hospital	Terrace CON Clinic
Interior Health	Kelowna General Hospital	Okanagan Lung Centre
		Kelowna Thoracic Centre
Vancouver Coastal	Vancouver General Hospital	BC Cancer Interventional Pulmonology Group
Fraser Health	Jim Pattison OPSC	Surrey Thoracic Surgery Group
	Royal Columbian Hospital	New West Respirology Group
Island Health	Royal Jubilee	Thoracic Surgical Associates

5.6 Standards for Respirologists and Thoracic Surgeons

Prior to the beginning – thoracic team	• Privileging Dictionary Approved by Health Authority, standardized across the province • CT Lung biopsy – no specific HA standard requirements currently
Mandatory training – thoracic team	• Lung Nodule Management Learning Modules • Credentialed by HA and by procedure
Participate in continuing education – CME	• Attend provincial educational forum meeting • Meet Royal College of Physicians and Surgeons of Canada Maintenance of Certification Program requirements
Credentialing	• HA provides credentialing

5.7 Diagnostic Investigation Standards for Referrals

Time from lung screen report to consultation	• Consultation provided within one week
For nodules requiring biopsy, time from consultation to biopsy	• Bronchoscopy or CT guided biopsy – 90% of cases completed within 2 weeks • PET CT – for staging or if biopsy is unsafe or unsuccessful prior to surgical resection
Performance reporting	• Retrospective reviews of abnormal cases

5.8 Communication of Results

RHA MI will share screen result data with BC Cancer Screening through program/HA CASCADE interface, so that BC Cancer can manage the distribution of provider and patient notifications.

The Radiologist screener can notify the RHA Diagnostic Investigation Site (Section 5.7) directly in the event that an abnormality requiring immediate attention is noted on the LDCT chest scan.

Separate standardized letters for the health care providers and the patients will be used. All patients and their primary care providers will receive consistent messaging of screening results and recommendations following the management protocols in section 5.1 to 5.5. Letter to patients will not include details of abnormal findings; this will be explained by the thoracic surgeon or respirologist at diagnostic clinic visits.

5.9 Rescreening or Surveillance

BC Cancer Screening will establish rescreening or surveillance reminders for patients based on recommendations from screening or subsequent diagnostic investigation. Rescreening reminders will be sent directly to the participant when they are due for their next screen. Participants will be advised to contact the Program to update their record and generate a LDCT scan referral for their next screen.

6. Participant Support

Participants may contact the Lung Screening Program client services centre directly for further information, clarification of results or advice regarding their next steps.

7. Program Monitoring and Evaluation

Evaluation of the screening program and outcome will occur on a regular basis. These analyses may include percentage of eligible individuals screened, screening appropriateness, quality assurance measures (e.g. radiation exposure, false positive and false negative rates), adherence to management recommendations, return to regular screening, cancer detection rates, invasive procedures for benign disease, complications following invasive biopsies or surgery, unplanned hospitalizations and deaths in 30 days.

8. References

1. Stephen Lam, Heather Bryant, Laura Donahoe, Ashleigh Domingo, Craig Earle, Christian Finley, Anne V. Gonzalez, Christopher Hergott, Rayjean J. Hung , Anne Marie Ireland, Michael Lovas, Daria Manos, John Mayo, Donna E. Maziak, Micheal McInnis, Renelle Myers, Erika Nicholson, Christopher Politis, Heidi Schmidt, Harman S. Sekhon, Marie Soprovich, Archie Stewart, Martin Tammemagi, Jana L. Taylor, Ming-Sound Tsao, Matthew T. Warkentin & Kazuhiro Yasufuku (2020) Management of screen-detected lung nodules: A Canadian partnership against cancer guidance document, Canadian Journal of Respiratory, Critical Care, and Sleep Medicine, 4:4, 236-265, DOI: 10.1080/24745332.2020.1819175

2. NHS England - National Cancer Programme (January 2019) Targeted Screening for Lung Cancer with Low Radiation Dose Computed Tomography

3. Diagnostic Accreditation Program Accreditation Standards (2016). Diagnostic Imaging.

9. Appendix A – Provincial Working Group Membership

Dr. Stephen Lam	Medical Director, BC Cancer Lung Screening
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