



Suspected Lung Cancer in Primary Care

Effective Date: June 30, 2021

Updated Screening Information: July, 2022

Scope

This guideline provides recommendations for primary care providers, for the investigation and management of adult patients (≥ 19 years of age) who present with signs or symptoms suggestive of lung cancer. Recommendations include the clinical assessment and appropriate referral of patients to a specialist.

This guideline was developed in collaboration with the BC Cancer Primary Care Program (Family Practice Oncology Network) and was based on a guideline adaptation approach including a recent systematic search of the evidence.

Key Recommendations

- **Tobacco remains the most significant cause of lung cancer.**¹ Smoking after a cancer diagnosis increases the risk of all-cause and cancer specific mortality, adverse effects on treatment outcomes, and increases the risk of recurrence or secondary cancers. Efforts should be focused on supporting patients to quit smoking and to reduce exposures to second-hand smoke.
- Although smoking represents the largest risk factor, **there is increasing recognition of the rise in number of cases of lung cancer in people who have never smoked.**² When communicating with patients with lung cancer, health care providers should avoid bias based on assumptions about smoking history.
- **Regardless of smoking history**, patients with persistent, atypical, or otherwise unexplained cough or chest infection should be sent for a chest X-ray. If chest X-ray is negative but symptoms persist additional investigations including contrast enhanced CT scan of chest to include adrenals should be ordered.
- **Long-term exposure to high concentrations of radon is a risk factor for lung cancer particularly in smokers.** Radon is found in outdoor air in low concentrations. In indoor environments, radon levels can be much higher. Radon levels in B.C. are variable but may be higher in some communities east of the Coast Mountains.
- The following require an **urgent referral to the emergency department**: stridor, massive hemoptysis, new neurological signs suggestive of brain metastases or cord compression, superior vena cava syndrome/obstruction, or a large unilateral pleural effusion.
- Asymptomatic patients who meet specific high risk criteria can be screened through the new (2022) BC Cancer Lung Screening Program.

Epidemiology

Lung cancer accounts for one of the top three cancers diagnosed in B.C. each year.³ In 2020, an estimated 3855 British Columbians will be newly diagnosed with lung cancer.⁴ Almost 100% of those diagnosed with lung cancer will be over the age of 40 when they are diagnosed.⁴ One in 13 females and one in 14 males are expected to develop lung cancer during their lifetime, and one in 19 will be expected to die from the disease.⁴ In 2017, the age-standardized incidence rate for lung cancer was 60.5 in men, and 58.4 in women (per 100,000).³ Outside of a screening program, approximately two-thirds of newly diagnosed lung cancers will be detected at stage 3 or 4.³ The 1, 3, and 5-year age-standardized relative survival rates for lung cancer in B.C. are 50.5%, 32.5%, and 26% respectively.⁵

Risk Factors

The following are important risk factors for lung cancer. See [Appendix B: Risk Factors for Lung Cancer](#) for more details.

- Tobacco – Smoking is an independent risk factor; smoking in combination with additional risk factors, and carcinogen exposure increases risk exponentially. The following criteria should be considered when assessing risk for lung cancer in individuals who had ever smoked: personal and family history of cancer, chronic obstructive pulmonary disease, smoking status (current vs. former), smoking quit time (3% risk reduction per year since stopped) and ethnicity.⁶
- Radon exposure – Radon is found in outdoor air in low concentrations. In indoor environments, radon levels can be much higher. Long-term exposure to high concentrations of radon is a risk factor for lung cancer.⁷⁻⁹
 - The risk of lung cancer is significantly higher among smokers exposed to radon.¹⁰ Radon levels in B.C. vary but may be higher in some communities east of the Coast Mountains.⁹ For location specific information on incidence, testing and mitigation strategies in BC refer to the BC Centre for Disease Control radon testing website (see [Practitioner and Patient Resources – Occupational Exposure Resources](#)).
- Occupational carcinogens – e.g., asbestos, diesel engine exhaust, silica, welding fumes, nickel compounds, chromium (VI) compounds, radon, and second-hand smoke.¹⁰
- Occupations/exposure settings – e.g., mining, rubber industry, welding, textile industry, construction industries, firefighting.^{10,11}
- Radon – While radon levels in B.C. are generally not high enough to exceed the maximum safe dose, the risk of lung cancer is significantly more in smokers exposed to radon.¹⁰
- Previous chemotherapy and/or radiation exposure.
- Specific infections such as tuberculosis, human immunodeficiency virus (HIV).
- Long-term exposure to air pollutants.¹²
- Pulmonary fibrosis and diseases that may cause pulmonary fibrosis.¹³
- Ethnicity – Although there are no current Canadian data, studies from the US show it is highest among those of African descent, followed by Caucasian, Indigenous peoples, Pacific Islanders, Asian and South Asian descent.¹⁴

The following factors are associated with the risk of lung cancer, but the association is less clear - human papillomavirus (HPV) infection,¹⁵ coffee intake,¹⁶ pro-inflammatory/metabolic diseases (i.e., diabetes, periodontal disease, dyslipidemia), asthma,¹⁷ body mass index (BMI),^{18,19} and vaping of substances other than tobacco/nicotine products.²⁰

Prevention

Tobacco remains the most significant cause of lung cancer; 55% of lung cancer deaths in women and over 70% of lung cancer deaths in men are due to smoking.¹ Continuation of smoking after a cancer diagnosis increases the risk of all-cause and cancer specific mortality, adverse effects on treatment outcomes, and increases the risk of recurrence or secondary cancers.²¹⁻²³ Second-hand smoke exposure has also been demonstrated as a risk factor for lung cancer.²⁴

Quitting smoking at the time of a cancer diagnosis is an important first step for cancer treatment. This can improve the results of treatment and reduce the side effects patients may experience from chemotherapy, radiation therapy and/or surgery. Efforts should be focused on supporting patients to quit smoking and to reduce exposure to second-hand smoke. The BC Cancer Smoking Cessation Program is designed to screen all patients for current smoking, provide advice on the benefits of quitting and automatically refer all current smokers for [cessation support](#) such as QuitNow. Refer to the [Practitioner and Patient Resources](#) for information on how to help patients to quit.

Screening

BC Cancer High Risk Lung Screening Program Overview

Two large randomized controlled trials demonstrated a lung cancer mortality benefit of 20-24% in asymptomatic current or former heavy smokers who were screened using low-dose computed tomography (LDCT).^{25,26} The 2021 US Preventive Services Task Force (USPSTF) reviews recommends annual screening for lung cancer with LDCT in adults aged 50 to 80 years who have a 20 pack-year smoking history and currently smoke or have quit within the past 15 years.²⁷

The [BC Cancer Lung Screening Program](#) aims to detect lung cancer earlier in adults between age 55 to 74 with a strong history of smoking, who are at high risk for lung cancer. Participants who have a health care provider may self-refer to the Program for a phone consultation and risk assessment to determine eligibility.

It is important not to screen outside of an organized program because screening must be delivered in a controlled health care setting, to improve lung cancer outcomes and minimize potential risks.

For the most up-to-date information refer to [BC Cancer Screening/lung](#).

For patients who have symptoms please refer to the [Investigations](#) section below.

Signs and Symptoms

Clinical Presentation:

- Hemoptysis
- Persistent, atypical, or otherwise unexplained cough*
- Chest infection symptoms that are not resolving or recurring*
- Unexplained changes in existing symptoms in patients with underlying chronic respiratory problems*
- Shortness of breath
- Unexplained chest, rib, or shoulder pain
- Hoarseness
- Dysphagia
- Weight loss/loss of appetite
- Horner's syndrome
- Suspicious lymphadenopathy
- Abnormal chest signs including pleural effusion on chest X-ray
- New finger clubbing
- Thrombocytosis, anemia, and leukocytosis not otherwise explained
- Unexplained thromboembolism (i.e., deep vein thrombosis [DVT] or pulmonary embolism [PE])
- Features suggestive of lung cancer that has metastasized elsewhere, or other cancers that have metastasized to the lung (e.g., breast, colorectal, prostate, bladder and kidney cancer are among the more common, however most cancers have the capacity to spread to the lungs)
- Features suggestive of paraneoplastic syndromes

* Increased level of clinical suspicion in patients with persistent, atypical, or otherwise unexplained cough or chest infection; patients should be sent for a chest X-ray. If chest X-ray is negative but symptoms persist additional investigations including contrast enhanced CT scan of chest to include adrenals should be ordered.

Indications for Urgent Referral

A person should be referred urgently to a specialist or to the emergency department for the following indications:

- Stridor
- Massive hemoptysis
- New neurological signs suggestive of brain metastases or cord compression
- Superior vena cava syndrome/obstruction
- A large unilateral pleural effusion

Investigations

Patients presenting to primary care with **any** suspicion of a malignancy should have urgent medical imaging:

- A chest X-ray is often the first step to diagnosis but may have a false negative rate of at least 20%.²⁸
- A contrast enhanced CT scan of chest to include adrenals should be ordered (this is the gold standard for diagnosis).

Refer to the [BC Guidelines: Computed Tomography \(CT\) Prioritization guideline](#) for information on imaging prioritization and appropriate imaging guidance for primary and emergency care (See [Practitioner and Patient Resources – Diagnostic Imaging](#)).

Not all pleural effusions are indicative of cancer. If a pleural effusion is present, a diagnostic and therapeutic thoracentesis should be performed to determine if the fluid is an exudate, transudate or infection related. Send samples immediately for culture, AFB, pH, protein, lactate dehydrogenase (LDH), glucose and cytology, with serum samples of LDH, protein and glucose. Prior to referral, specialists may request other diagnostic investigations.

Sputum cytology is of low yield and is not recommended for the investigation of lung cancer.

Referral to a Specialist

Patients should be referred to a specialist if they have any of the following:

- Persistent hemoptysis
- A chest X-ray or CT suggestive or suspicious of lung cancer. The radiologist may comment on findings such as:
 - A nodule (<3cm) or mass (>3cm)
 - Multiple pulmonary nodules
 - Non-resolving pleural effusion
 - Mediastinal or hilar adenopathy
 - Interstitial infiltrates
 - Slowly or non-resolving pneumonia or consolidation
 - Unexplained elevated diaphragm

There is no single algorithm for the diagnosis and staging of lung cancer, therefore urgent referral to respirology or thoracic surgery for tissue biopsy and a comprehensive work-up is recommended. Newly diagnosed patients with advanced lung cancers are eligible for clinical assay to determine genotype status. The most appropriate biopsy site and technique will be determined by the specialist; however, common techniques include:

- endobronchial ultrasound (EBUS) for biopsy of lesion(s)
- CT guided biopsy if the lesion is not amenable to bronchoscopy biopsy
- staging of the mediastinal and hilar lymph nodes

Other staging modalities, such as PET scan and brain imaging, will be organized by the specialist team if required.

The **Rapid Access Consultative Expertise (RACE)** line provides access to virtual **Respirology specialty expertise for advice to primary care providers when determining next steps in diagnostic work up** and management ([Practitioner and Patient Resources](#) for more information). For urgent symptoms, consider consulting the specialist on call through your local/regional hospitals. Fee codes are available for both specialty and family physicians to support virtual communication.

Refer to the [Pathways Referral Tool](#) for local referral information including wait times and areas of expertise of specialists and specialty clinics.

Communication along the Continuum of Care

During Referral from Primary Care

Referring practitioners should include clear, pertinent clinical history on referral letter/requisitions to assist the triaging/prioritizing of examinations and the interpretation of images. Consider directly noting the priority where possible.

To expedite the diagnosis and avoid duplication of investigations, include the following:

- Patient history, including **all risk factors** and **signs or symptoms suspicious of lung cancer**
- All other **relevant medical conditions** and patient **medications** including both prescription and over the counter.
- **Provide all pre-existing imaging results**, including chest X-rays and CT scans (films and digital images should be available at the time of consultation)
- **All recent bloodwork**, may include CBC, kidney and liver function, coagulation parameters and electrolyte levels.

Communications between Specialty and Primary Care

- **Goals of care** (i.e., curative or palliative) and **changes** in goals of care are clearly stated.
- Clear written communication to convey what the patient understands about the goals of care.
- Outline current treatments, timeframes, side effects and late effects resulting from treatments.
- All other **relevant medical conditions** and patient **medications** (e.g., common side effects the family physician should watch for; potential medication interactions for existing and future medical comorbidities as a result of cancer treatment etc. and include this information in the consultation notes). Refer to BC Cancer's [Symptom and Side Effect Management Resource](#) for individualized information.
- **Consider offering primary care providers virtual participation in cancer care multidisciplinary team meetings, or the ability to contact the oncologist directly by phone, to enable the family physician/primary care provider to support the patient/family during treatment or palliation.** Fee codes are available for both specialty and family physicians to support virtual communication (see [Practitioner and Patient Resources](#)).

Immunizations and Cancer Management

While there are currently no specific recommendations on immunizations for patients with lung cancer, BC Cancer recommends that providers should offer an age-appropriate [COVID-19](#) and [inactivated influenza vaccine](#) to all patients without contraindications to the vaccines. Similarly, though not specific to lung cancer patients, all adults ≥ 65 in BC are recommended to receive one dose of pneumococcal vaccine. Patient immunization status should be included as part of the referral information.

Special Considerations

The Firefighters' Occupational Disease Regulation lists nine cancers including lung cancer that are prescribed occupational diseases that are causally related to the occupation of firefighting. Physicians who have a patient who is a firefighter, and who is diagnosed with one of the prescribed occupational diseases should advise their patient about the occupational disease presumption for [firefighters in the Workers Compensation Act](#), and the worker's compensation coverage (see [Practitioner and Patient Resources](#)).

In B.C., workers with occupational diseases, including cancer related to carcinogen inhalation, can apply for benefits through [WorkSafeBC](#).

Treatment of Lung Cancer

Non-surgical treatment of lung cancer is provided through [BC Cancer](#). With the recent inclusion of immunotherapy as well as access to clinical trials, treatment options are always changing. For more details on specific therapy options your patient may be offered once referred, please refer to the information for Health Professionals section of the [BC Cancer website](#).

Palliative Care and Advance Care Planning

Despite treatment advances, lung cancer becomes terminal in many patients. Patients with a potentially life-limiting disease or illness may benefit from the development of an advance care plan (ACP) that incorporates the patient's values and personal goals, indicates potential outcomes, and identifies linkages with other health care professionals that would be involved in the care, as well as their expected roles. The ACP is an opportunity to also identify the patient's alternate substitute decision-maker or legal health representative. For information on ACP and palliative care, including tools for identifying patients who would benefit from palliative care at earlier stages of the illness, refer to [Practitioner and Patient Resources – Palliative Care and Advanced Care Planning](#) section.

Resources

► References

1. O'Keeffe LM, Taylor G, Huxley RR, Mitchell P, Woodward M, Peters SAE. Smoking as a risk factor for lung cancer in women and men: a systematic review and meta-analysis. *BMJ Open*. 2018 Oct;8(10):e021611.
2. Lariscy JT, Hummer RA, Rogers RG. Lung cancer mortality among never-smokers in the United States: estimating smoking-attributable mortality with nationally representative data. *Ann Epidemiol*. 2020 May;45:5–11.
3. BC Cancer Incidence Rates [Internet]. [cited 2021 Feb 3]. Available from: <http://www.bccancer.bc.ca/health-info/disease-system-statistics/cancer-incidence-rates>
4. BC Cancer Statistics by Cancer Type [Internet]. [cited 2021 Feb 3]. Available from: <http://www.bccancer.bc.ca/health-info/disease-system-statistics/statistics-by-cancer-type>
5. BC Cancer Survival Rates [Internet]. [cited 2021 Feb 3]. Available from: <http://www.bccancer.bc.ca/health-info/disease-system-statistics/cancer-survival-rates>
6. Tammemägi MC, Katki HA, Hocking WG, Church TR, Caporaso N, Kvale PA, et al. Selection criteria for lung-cancer screening. *N Engl J Med*. 2013 Feb 21;368(8):728–36.
7. Li C, Wang C, Yu J, Fan Y, Liu D, Zhou W, et al. Residential Radon and Histological Types of Lung Cancer: A Meta-Analysis of Case–Control Studies. *Int J Environ Res Public Health*. 2020 Feb 24;17(4):E1457.
8. Dobrzynski L, Fornalski KW, Reszczynska J. Meta-analysis of thirty-two case-control and two ecological radon studies of lung cancer. *J Radiat Res*. 2018 Mar 1;59(2):149–63.
9. British Columbia Centre for Disease Control: Radon Testing [Internet]. Available from: <http://www.bccdc.ca/health-professionals/professional-resources/radon-testing>
10. Occupational Cancer Research Centre. Toronto, ON. Burden of occupational cancer in Canada: Major workplace carcinogens and prevention of exposure. [Internet]. 2019. Available from: <https://www.occupationalcancer.ca/burden/burden-publications/>
11. Micallef CM, Shield K, Baldi I, Charbotel B, Fervers B, Ilg AGS, et al. Occupational exposures and cancer: a review of agents and relative risk estimates. *Occupational and Environmental Medicine*. 2018 Aug;75(8):604–14.
12. Kim H-B, Shim J-Y, Park B, Lee Y-J. Long-Term Exposure to Air Pollutants and Cancer Mortality: A Meta-Analysis of Cohort Studies. *Int J Environ Res Public Health*. 2018 Nov 21;15(11).
13. JafariNezhad A, YektaKooshali MH. Lung cancer in idiopathic pulmonary fibrosis: A systematic review and meta-analysis. *PLoS One*. 2018;13(8):e0202360.
14. Racial/Ethnic Disparities and Geographic Differences in Lung Cancer Incidence --- 38 States and the District of Columbia, 1998--2006 [Internet]. [cited 2021 Apr 27]. Available from: <http://www.cdc.gov/mmwr/preview/mmwrhtml/mm5944a2.htm>
15. Tsyganov MM, Pevzner AM, Ibragimova MK, Deryusheva IV, Litviakov NV. Human papillomavirus and lung cancer: an overview and a meta-analysis. *J Cancer Res Clin Oncol*. 2019 Aug;145(8):1919–37.
16. Xie Y, Qin J, Nan G, Huang S, Wang Z, Su Y. Coffee consumption and the risk of lung cancer: an updated meta-analysis of epidemiological studies. *Eur J Clin Nutr*. 2016 Feb;70(2):199–206.
17. Karim AF, Westenberg LEH, Eurelings LEM, Otten R, Gerth van Wijk R. The association between allergic diseases and cancer: a systematic review of the literature. *Neth J Med*. 2019 Feb;77(2):42–66.
18. Yu D, Zheng W, Johansson M, Lan Q, Park Y, White E, et al. Overall and Central Obesity and Risk of Lung Cancer: A Pooled Analysis. *JNCI: Journal of the National Cancer Institute*. 2018 Aug 1;110(8):831–42.
19. Sanikini H, Yuan J-M, Butler LM, Koh W-P, Gao Y-T, Steffen A, et al. Body mass index and lung cancer risk: a pooled analysis based on nested case-control studies from four cohort studies. *BMC Cancer*. 2018 Feb 23;18(1):220.
20. Ghasemiesfe M, Barrow B, Leonard S, Keyhani S, Korenstein D. Association Between Marijuana Use and Risk of Cancer: A Systematic Review and Meta-analysis. *JAMA Netw Open*. 2019 Nov 27;2(11):e1916318.
21. Toll BA, Brandon TH, Gritz ER, Warren GW, Herbst RS, AACR Subcommittee on Tobacco and Cancer. Assessing tobacco use by cancer patients and facilitating cessation: an American Association for Cancer Research policy statement. *Clin Cancer Res*. 2013 Apr 15;19(8):1941–8.
22. Parsons A, Daley A, Begh R, Aveyard P. Influence of smoking cessation after diagnosis of early stage lung cancer on prognosis: systematic review of observational studies with meta-analysis. *BMJ*. 2010 Jan 21;340:b5569.

23. Doll R, Peto R, Boreham J, Sutherland I. Mortality in relation to smoking: 50 years' observations on male British doctors. *BMJ*. 2004 Jun 26;328(7455):1519.
24. Kim A-S, Ko H-J, Kwon J-H, Lee J-M. Exposure to Secondhand Smoke and Risk of Cancer in Never Smokers: A Meta-Analysis of Epidemiologic Studies. *Int J Environ Res Public Health*. 2018 Sep 11;15(9).
25. The National Lung Screening Trial Research Team. Reduced Lung-Cancer Mortality with Low-Dose Computed Tomographic Screening. *N Engl J Med*. 2011 Aug 4;365(5):395–409.
26. de Koning HJ, van der Aalst CM, de Jong PA, Scholten ET, Nackaerts K, Heuvelmans MA, et al. Reduced Lung-Cancer Mortality with Volume CT Screening in a Randomized Trial. *N Engl J Med*. 2020 Feb 6;382(6):503–13.
27. US Preventive Services Task Force, Krist AH, Davidson KW, Mangione CM, Barry MJ, Cabana M, et al. Screening for Lung Cancer: US Preventive Services Task Force Recommendation Statement. *JAMA*. 2021 Mar 9;325(10):962.
28. Bradley SH, Abraham S, Callister ME, Grice A, Hamilton WT, Lopez RR, et al. Sensitivity of chest X-ray for detecting lung cancer in people presenting with symptoms: a systematic review. *Br J Gen Pract*. 2019 Dec;69(689):e827–35.
29. Del Giudice ME, Young S-M, Vella ET, Ash M, Bansal P, Robinson A, et al. Guideline for referral of patients with suspected lung cancer by family physicians and other primary care providers. *Can Fam Physician*. 2014 Aug;60(8):711–6, e376-382.
30. British Columbia Centre for Disease Control: Protocols for Radon Testing in BC Homes. [Internet]. Available from: <http://www.bccdc.ca/resource-gallery/Documents/Guidelines%20and%20Forms/Guidelines%20and%20Manuals/EH/RPS/Radon%20in%20Homes%20Test%20Protocol%20final.pdf>
31. WorkSafe BC: Radon [Internet]. Available from: Work Safe BC Health and Safety: Radon [Internet]. 2021. Available from: <https://www.worksafebc.com/en/health-safety/hazards-exposures/radon>

► Practitioner and Patient Resources

Referral Supports

RACE Line (Rapid Access to Consultative Expertise)

A phone consultation line (Toll free: 1-877-696-2131) and app service (RACEapp+ or www.raceapp.ca) for physicians, nurse practitioners and medical residents.

To call the RACE line and speak to a specialist, call: 604-696-2131 or 1-877-696-2131

Contact your local RACE line for the list of available specialty areas. If the relevant specialty area is available through your local RACE line, please contact them first.

Kootenay Boundary RACE – Toll Free: 1-844-365-7223

(<http://www.divisionsbc.ca/kootenay-boundary/our-impact/team-based-care/race-line>)

Northern RACE – Toll Free: 1-855-605-7223

(<https://physicians.northernhealth.ca/physician-resources/northern-race?keys=RACE#northern-race>)

Pathways

Pathways is an online resource that provides physicians and their office staff/teams quick access to current and accurate referral information, including wait times and areas of expertise of specialists and specialty clinics. Pathways also provides access to hundreds of patient and physician resources, as well as community service and allied health information that is categorized and searchable.

Virtual Care

With the shift toward including more virtual care in the healthcare system, many primary care providers and specialists have incorporated this into their workflow. Virtual care enables the provision of care remotely through technologies that increase access to quality patient-centered care and lower disease transmission risk, while reducing wait and commute times. Conferencing between primary care practitioner, patient (and family) with the specialist together in real time instead of the traditional referral pathway can result in higher quality and more efficient discussion where everyone can learn, especially those located in rural and remote communities who lack access to primary care services. This approach may also support information sharing and reducing gaps as well as duplication and can ensure there is a clear consensus on next steps in management plans. Refer to **Doctors Technology Office (DTO) at Doctors of BC** for more information. Fee codes are available for both specialty and family physicians to support virtual communication.

Diagnostic Imaging

[BC Guidelines: Computed Tomography Prioritization](#)

[Canadian Association of Radiologists](#)

[2012 CAR Diagnostic Imaging Referral Guidelines](#)

General

- [BC Cancer](#)
 - [BC Cancer Lung Screening Program](#)
 - [Hereditary Cancer Program](#)
 - [Symptom and Side Effect Management Resource Guide](#)
 - [Lesbian, Gay, Bisexual and Transgender with Cancer Websites](#)
- [Canadian Cancer Society](#)
- [Lung Cancer Canada](#) – Lung cancer education, patient support, research, and advocacy

Occupational Exposure Resources

- [BC Center for Disease Control, Radon Testing](#)
- [British Columbia Lung Association](#)
- [Healthy Indoor Environments Program](#)
- [RadonAware](#) – Information and resources for the public, building professionals, researchers and others including publicly available radon kits.
- [WorkSafeBC, Occupational Disease Services: 604-279-8158](#)
- [WorkSafeBC Radon](#)
- [Workers Compensation Act, Firefighters' Occupational Disease Regulation](#)

Smoking Cessation

- [QuitNow](#) – Referral program, continuing education, supporting evidence and downloadable materials
- [BC Smoking Cessation Program](#) – helps eligible B.C. residents who wish to stop smoking or using other tobacco products
 - [BC Cancer Smoking Cessation Program – Quitting Smoking after a Cancer Diagnosis Video](#)
 - [BC Cancer Smoking Cessation Patient Brochure](#)

Survivorship

- [BC Cancer Survivorship resource](#)
- [BC Cancer](#) – Emotional support, exercise support, complementary and alternative therapies, and life after cancer resources:
 - [Advance care planning](#)
 - [Complementary & Alternative Therapies](#)
 - [Coping with cancer](#)
 - [Emotional Support](#)
 - [Exercise Support](#)
 - [Life after cancer](#)
- [HealthLink BC, 8-1-1 \(toll free in B.C.\), or 7-1-1 \(for the hearing impaired\)](#)
 - [Dietitian Services](#)
 - [Eating Guidelines for After a Cancer Diagnosis](#)
 - [Health Eating Guidelines for Cancer Survivors](#)
 - [Nutrition for People with Cancer](#)
 - [Physical Activity Services](#)

Palliative Care and Advance Care Planning

- [FNHA Advanced Care Planning](#)
- [BCGuidelines: Palliative Care for the Patient with Incurable Cancer or Advanced Disease – Parts 1-3](#)
- [B.C. Ministry of Health – Advance Care Planning](#)
- [HealthLink BC – Advance Care Planning](#)
- [Cancer Care Ontario - A Palliative Care Approach for Primary Care](#)

▶ **Appendices**

[Appendix A: Guideline Development Methodology](#)

[Appendix B: Risk Factors for Lung Cancer](#)

▶ **Diagnostic Code**

162 (malignant neoplasm of trachea, bronchus and lung)

▶ **Abbreviations**

ACP – Advance Care Plan

AGREE – Appraisal of Guidelines for Research and Evaluation

BMI – Body Mass Index

CT – Computed Tomography

DVT – Deep Vein Thrombosis

EBUS – Endobronchial Ultrasound

HIV – Human Immunodeficiency Virus

HPV – Human Papillomavirus

LDH – Lactate Dehydrogenase

PE – Pulmonary Embolism

This guideline is based on scientific evidence current as of July 2021 (see [Appendix A – Guideline Development Methodology](#)).

The guideline was developed by the BC Cancer Primary Care Program (Family Practice Oncology Network), and the Guidelines and Protocols Advisory Committee.

The guideline was developed by the Guidelines and Protocols Advisory Committee and adopted by the Medical Services Commission.

THE GUIDELINES AND PROTOCOLS ADVISORY COMMITTEE

The principles of the Guidelines and Protocols Advisory Committee are to:

- encourage appropriate responses to common medical situations
- recommend actions that are sufficient and efficient, neither excessive nor deficient
- permit exceptions when justified by clinical circumstances

Contact Information:

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Disclaimer

The Clinical Practice Guidelines (the guidelines) have been developed by the BC Cancer Primary Care Program, Family Practice Oncology Network and the Guidelines and Protocols Advisory Committee, on behalf of the Medical Services Commission. The guidelines are intended to give an understanding of a clinical problem, and to outline one or more preferred approaches to the investigation and management of the problem. The guidelines are not intended as a substitute for the advice or professional judgment of a health care professional, nor are they intended to be the only approach to the management of clinical problem. **We cannot respond to patients or patient advocates requesting advice on issues related to medical conditions. If you need medical advice, please contact a health care professional.**