

Lung cancer follow-up and surveillance: the role of primary care

Transitioning from active treatment to post-treatment care is an important milestone in the long-term health of people who have undergone curative-intent treatment of lung cancer. Primary care is well placed to offer follow-up and supportive care to the patient and their family/whānau that includes monitoring for cancer recurrence and reducing the physical and psychosocial impacts of cancer and its treatments.

KEY PRACTICE POINTS:

- Post-cancer treatment, primary care providers should receive a copy of the patient's management summary from the treating specialist, including treatments received, adverse effects, outcomes, any advance care plans, and frequency, duration and scope of follow-up
- Patients should have their first follow-up appointment with the treating specialist within six weeks of completing treatment, and if there are unresolved complications a second appointment at three months post-treatment. Longer-term follow-up and supportive care of patients and their family/whānau can often be provided in the community, with a clear pathway back to secondary care if required.
- Check that the patient has a chest X-ray scheduled for three months post-treatment, to be reviewed by the treating specialist. Additional imaging should be requested as required to investigate new symptoms or signs; surveillance with chest X-ray or laboratory investigations is not recommended routinely in primary care but may be part of ongoing specialist follow up.
- Pain, fatigue, dyspnoea and cough may persist following lung cancer treatment; a variety of non-pharmacological and pharmacological interventions are available to help patients manage these. If symptoms resolve post-treatment but then recur, this would raise suspicion of lung cancer recurrence or delayed morbidity, e.g. pulmonary fibrosis post-radiation therapy.
- Approximately half of people who undergo curative-intent lung cancer surgery will have recurrence; recurrence rates are higher in those treated with radiation or chemotherapy. The majority of lung cancer recurrence happens within the first two years post-treatment.
- Symptoms and signs associated with local recurrence are similar to primary lung cancer and include persistent cough, breathlessness, haemoptysis, chest/shoulder pain, weight loss, abnormal chest signs, recurrent chest infections and hoarseness. Recurrence at distant sites commonly occurs in the pleura, adrenal glands, bone, liver or brain.
- A chest X-ray is usually the first investigation if local recurrence is suspected. Consider CT and/or re-referral to specialist or palliative care depending on local pathways and patient's symptoms and signs and goals of care/advanced care plan. A lung cancer nurse specialist, if available, may be a good initial point of contact.
- Consider the patient's and family/whānau's physical, psychological, social and spiritual needs; refer to the Cancer Society NZ or Lung Foundation NZ for support throughout the patient's cancer journey

This article is based on expert guidance from the National Lung Cancer Working Group. A National guidance document for follow up and supportive care for people with lung cancer is currently under development.

Supporting the transition from active treatment to post-treatment care

Transitioning from active treatment to post-treatment care is an important milestone in the long-term health of people with lung cancer, and consistent follow-up and surveillance is necessary to ensure equitable outcomes for those who have undergone curative-intent* treatment.^{1,2} However, there is variability in the provision of this care across the country, with many potential contributing factors, including:²

- **Patient/whānau:** co-morbidities, priorities and preferences, geographical and social isolation
- **Clinical pathway:** expected or unexpected health complications
- **Cancer:** histology, stage and prognosis, effectiveness of adjuvant and second-line interventions and surveillance (see: "Lung cancer treatment and survival in New Zealand")
- **Access:** availability of resources or services
- **Co-ordination:** strength of links between tertiary, secondary and primary health services and community support services

* Curative-intent treatments in New Zealand include surgery, radical radiotherapy (including stereotactic ablative radiotherapy) or chemo-radiotherapy (not always given with curative intent)²

The goals of post-treatment care

The main goals of post-treatment care are to:¹⁻³

- Prevent and detect recurrent or new cancers to enable timely and appropriate management
- Prevent, identify and manage medical and psychosocial late or chronic effects of cancer and cancer treatment
- Co-ordinate care between all providers to ensure the patient's needs are met
- Help the patient to gain greater independence and self-management of their ongoing health and wellbeing

Surveillance for lung cancer recurrence and new cancer development

Recurrence and second primary cancer rates following lung cancer are variable and influenced by many factors, including:^{4,5}

- Ongoing risk factors, e.g. smoking
- Characteristics of the original malignancy
- Increased contact with healthcare leading to detection and diagnosis of a second primary cancer

Approximately half of people with lung cancer who undergo curative-intent surgery will have a local or distant recurrence,⁶ with higher rates in those with larger tumours or occult lymph node metastases. The risk of lung cancer recurrence is greatest within the first two years post-treatment.⁶ Distant recurrence often occurs earlier than local recurrence.⁷ Local recurrence following surgery is reported in approximately one-quarter of cases.⁸ Approximately 40% of people with limited stage small cell lung cancer (SCLC) will have recurrence within the first year following chemoradiation, increasing to 60% in the first three years following treatment.⁶ Treatment options following recurrence of SCLC may be limited; treatment is often palliative and symptom-based, but oligometastases* can be treated curatively and second-line palliative treatments can improve quality of life and survival. For people with non-small cell lung cancer (NSCL), treatment options and outcomes are more variable, depending on the specific type of cancer and access to treatments.

* Metastatic disease (i.e. distant spread of cancer) that is limited in the extent, number and distribution of tumours, responsive to local treatment

People who have had lung cancer are at risk of any second primary cancer; common second cancers include head and neck, thyroid, pancreatic and bladder cancers.⁴ The risk of developing a new primary lung cancer two or more years following curative-intent treatment is 1.5 – 2% per year.⁶

Primary care is well placed to provide follow-up and surveillance care

While follow-up of people treated for lung cancer has traditionally taken place in secondary care, in many instances this can be provided in the community, e.g. by a general practitioner or nurse practitioner, or via outpatient services with a clinical nurse specialist.² One of the benefits of primary care-led follow-up is the provision of "survivorship" care that encompasses the patient's cancer-related care, as well as management of co-morbidities and other health and wellbeing needs, including lifestyle interventions (e.g. smoking cessation, reducing alcohol intake, improved diet) and psychological support (see: "Psychological symptoms and cognitive changes following lung cancer treatment").⁹ Potential issues with primary care-led follow-up include the time constraints on general practice and additional cost to patients of primary care appointments, which can be a significant factor. Telephone follow-up with a nurse, where appropriate, may help to mitigate this cost for the patient.

 A lung cancer toolkit for patients has been developed by the Lung Foundation NZ: <https://lungfoundation.org.nz/wp-content/uploads/2018/11/LFNZ-TOOLKIT-A4-Poster.pdf>

Follow-up and surveillance recommendations for people post-treatment for lung cancer

The primary care provider and patient should have access to a treatment summary

On completion of cancer treatment, it is the treating specialist's responsibility to share a copy of the patient's treatment summary with their primary care provider (this should be able to be accessed electronically via a shared record storage system); a plain language summary should also be provided to the patient and their family/whānau.²

The treatment summary should contain information on the:²

- Diagnosis
- Treatments received and when completed
- Long-term adverse effects that may occur and any laboratory monitoring or other investigations required
- Documentation that the patient and their family/whānau understand the diagnosis and treatment, that prognosis has been discussed and any advance care planning
- Symptoms and signs that may indicate recurrence and need for further investigation
- Contact information for key care providers
- Follow-up plan that includes the providers involved, the frequency/ duration of follow-up (typically five years) and clear lines of responsibility

The frequency and type of follow-up care is individualised

The frequency and type of follow-up care will be specified in the treatment plan. All patients should have a follow-up appointment with the treating specialist within six weeks of completing treatment to assess for complications and to discuss ongoing care. If there are unresolved complications of treatment, a second review with the treating specialist should take place at three months post-treatment.² Many patients can have their longer-term follow-up and supportive care provided in the community, in accordance with their treatment plan. Other healthcare providers who may be involved, depending on the needs of the patient, include physiotherapy, occupational therapy, social work, dietetics, counselling and palliative care.

Routine chest X-ray is not recommended for surveillance

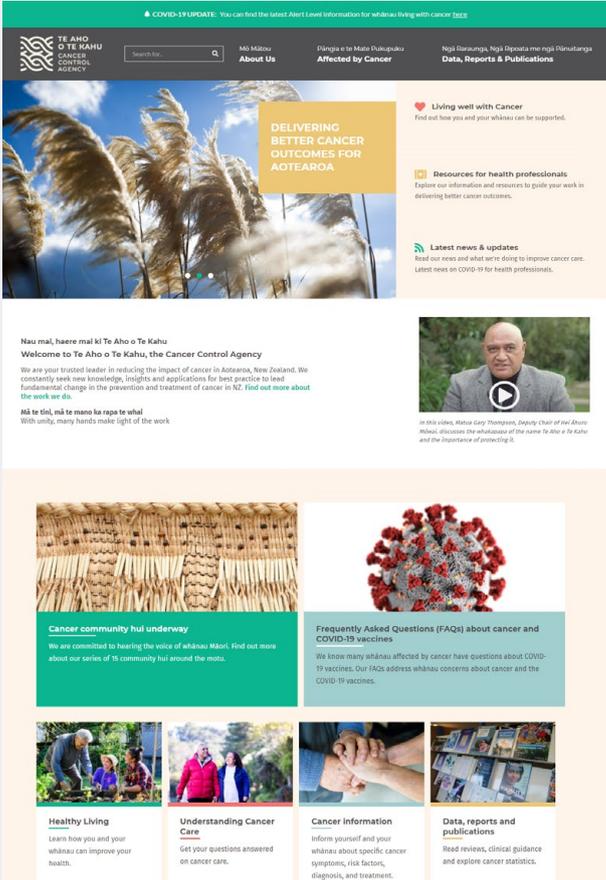
There is limited evidence to guide the use of routine surveillance imaging following curative-intent lung cancer treatment.² The National Lung Cancer Working Group recommends all patients undergo a chest X-ray at three months post-treatment, reviewed by the treating specialist.² Additional imaging (repeat chest X-ray or referral* for chest

Lung cancer treatment and survival in New Zealand

Te Aho o Te Kahu, Cancer Control Agency, released a lung cancer quality improvement monitoring report early in 2021 that included data on treatment and survival. Key findings of the report included:¹⁰

- The survival rate for people diagnosed with lung cancer between 2015 and 2017 was 42% at one year, 38% at two years and 21% at three years post-diagnosis
- Survival rates were lower in Māori, males and people living in areas of high socio-economic deprivation
- Between 2015 and 2018:
 - 17% of people with NSCLC underwent curative surgical resection; rates were lowest in Māori (13.4%) and Pacific peoples (12.2%)
 - 30% of people with NSCLC and 70% with SCLC received systemic anti-cancer treatment
 - 6% of people with NSCLC and 11% with SCLC received concurrent chemotherapy and radiation treatment

 The full report is available from: <https://teaho.govt.nz/static/reports/lung-cancer-quality-improvement-monitoring-report-20210225.pdf>



CT) should be requested based on symptoms and signs, but in some instances may be requested by the specialist as part of routine surveillance (see: "Recognising lung cancer recurrence: key symptoms and signs").²

A small number of patients may benefit from more intensive follow-up with chest CT, e.g. those with indeterminate pulmonary nodules, where the risk of recurrence is high and active or curative treatment would be considered, or if the risk of new cancers is high, such as patients with a known mutation who may be suitable for targeted therapy.² These patients are usually followed up by secondary care.

* In some DHBs, general practitioners may be able to refer directly for chest CT, with or without advice from a respiratory physician or radiologist

Surveillance for recurrence can cause anxiety and distress

Ensure that the patient and their family/whānau understand the purpose of the appointments, the recommended schedule and what to do if they have symptoms or concerns that arise before a routine follow-up appointment.² Some patients may request additional imaging for reassurance; discuss the risks associated with imaging, e.g. radiation exposure, and that the risk of false positives increases when imaging is undertaken in the absence of clinical suspicion.²

Recommend Advance Care Planning if not already in place

Ideally, Advance Care Planning (ACP) will have been discussed and put in place by the treating team after the patient's cancer diagnosis. The transition to post-treatment care is an opportunity for the patient and their family/whānau to review the care plan or establish one if they have not already done so.

 For further information on Advance Care Planning, see: <https://www.hqsc.govt.nz/our-programmes/advance-care-planning/information-for-clinicians/>

Managing patients' needs following curative-intent lung cancer treatment

The nature, severity and duration of symptoms following lung cancer treatment is influenced by various factors, including the type, extent or intensity of treatment, the patient's general health status, co-morbidities, psychosocial and lifestyle factors, e.g. smoking, diet and exercise.¹⁵ There may be symptoms or signs caused by complications from the cancer itself, e.g. hypercalcaemia, which can affect up to 30% of people with cancer.¹⁶

Achieving equity in cancer care for Māori by 2030

In 2019, at the Cancer Care at a Crossroads conference convened by the University of Otago and Cancer Society of New Zealand, the goal to achieve equity in cancer survival between Māori and non-Māori by the year 2030 was agreed.¹¹ This requires a systems-level approach that addresses inequities at each stage of the cancer journey, including prevention, early diagnosis, availability, affordability and acceptability of treatments, follow-up and survival care.¹¹

The key areas of contribution for primary care are in the prevention, early detection (see link below) and follow-up and surveillance of cancer. Lung cancer incidence and mortality rates are over three times higher in Māori than non-Māori.^{12, 13} High tobacco smoking rates among Māori is an important contributing factor to the high incidence of lung cancer in this group, therefore encouraging and supporting smoking cessation is a key priority (see:

"Encourage and support smoking cessation"). Equitable and accessible follow-up and supportive care should be consistent throughout the country. This should include patient education about the importance of follow-up care, key symptoms and signs that could indicate recurrence and the support services available. If transport or cost is a barrier to attending follow-up appointments, consider whether some consultations could be by phone or with a nurse. Ensuring that co-morbidities are well managed is also essential to improving survival rates among Māori.¹⁴ Māori have higher rates of co-morbidities, which increases the complexity of care if lung cancer is diagnosed, and reduces treatment options, e.g. eligibility for curative surgical resection.¹⁴

 For further information on early detection of lung cancer, see: <https://bpac.org.nz/2021/lung-cancer.aspx>

Patients with late/long-term physical or psychological effects (see below) can typically be managed in primary care; patients with post-treatment complications should be discussed with or referred to the relevant specialist, e.g. a patient with dyspnoea post-radiation therapy may be referred to a respiratory physician, a patient with cardiac failure referred to a cardiologist or a patient with oesophageal stricture referred to a gastroenterologist (see: "Post-treatment complications vary by treatment type").

Physical symptoms following lung cancer treatment

A systematic review including 19 studies of people with NSCLC who were treated with surgery found:¹⁷

- **Pain, fatigue, dyspnoea** and **cough** were the most commonly reported symptoms; dyspnoea and fatigue persisted for at least two years post-surgery
- The majority had **decreased physical functioning** after surgery; this persisted for up to two years in some people
- Continued smoking, the presence of co-morbidities, more extensive surgical resection and adjuvant chemotherapy whilst receiving it were associated with poorer post-operative quality of life
- Other common physical symptoms following lung cancer treatment include **reduced appetite, malnutrition** and **insomnia**

Non-pharmacological approaches to managing physical symptoms:^{18, 19}

- Smoking cessation (see below)
- Referral to a pulmonary rehabilitation programme
- Mind-body modalities (e.g. yoga, tai chi, qigong) or psychological support (e.g. mindfulness, cognitive behavioural therapy) to reduce acute or chronic pain and sleep disturbance
- Regular exercise, as tolerated – see: "Physical activity recommendations for people treated for lung cancer"
- Oral nutritional supplementation for patients who are malnourished – for further information, see: <https://bpac.org.nz/2021/cachexia.aspx>

Encourage and support smoking cessation

The key opportunity to encourage and support smoking cessation is at the time of lung cancer diagnosis, and many people will stop at this point. Smoking cessation rates among people who have undergone cancer treatment gradually decrease over time.²⁰ However, restart rates are reported to range from 13 – 60%.²⁰ Factors contributing to this may include nicotine withdrawal, pain, fatigue, nausea, depression and anxiety.²⁰

The ABC model can be used as a guide to offer support and encouragement to stop smoking:

- **Ask** about and document smoking status, including use of e-cigarettes and exposure to passive smoking
- Give **Brief advice** to stop
- Strongly encourage the use of **Cessation support** and offer help in accessing this, and refer to services if this offer is accepted. A combination of behavioural support and pharmacological treatment is ideal.

Pharmacological treatments approved for smoking cessation include nicotine replacement therapy, bupropion, nortriptyline and varenicline (with Special Authority approval – currently out of stock as at October, 2021).²¹

 For further information on smoking cessation, see: <https://bpac.org.nz/BPJ/2015/October/smoking.aspx>

 For further information on smoking cessation medicines, including dosing and regimen, contraindications and cautions, see: https://www.nzf.org.nz/nzf_2838

Physical activity recommendations for people treated for lung cancer

General practice is well placed to co-ordinate and recommend exercise interventions for people who have undergone lung cancer treatment. There is a range of benefits of exercise in cancer survivors, including improved physical and mental health, symptom reduction and improved quality of life.¹⁹ Tolerance to exercise will vary depending on where the patient is in their cancer journey; encourage patients to engage in as much physical activity as possible and to reduce sedentary periods.¹⁹ Recommendations should be individualised, taking into account patient preferences, abilities, symptoms, co-morbidities and safety.¹⁹ Refer patients who are unable to exercise safely without supervision or those requiring additional support to an exercise professional, e.g. pulmonary rehabilitation programme, cancer rehabilitation programme (e.g. Pinc and Steel NZ – see link below), Green Prescription.

 A downloadable exercise template for people with cancer is available from: https://www.exerciseismedicine.org/support_page.php/moving-through-cancer/

 For further information on Pinc and Steel NZ cancer rehabilitation programmes, see: <https://www.pincandsteel.com/> N.B. This service is not government funded but provides assistance in sourcing funding for patients if required/eligible.

Pharmacological interventions to manage physical symptoms after lung cancer

Pain – follow the World Health Organization’s analgesic ladder for pain:²²

- Oral morphine is recommended first-line for patients with severe chronic pain; transdermal fentanyl is an alternative if there are issues with swallowing, nausea or vomiting
- A gabapentinoid or tricyclic antidepressant are recommended for patients with chronic neuropathic pain²³
- If a NSAID is prescribed and the patient is at high risk of gastrointestinal bleeding, prescribe a proton pump inhibitor (PPI) concurrently

Dyspnoea – treat any underlying causes or contributing factors, e.g. COPD, anaemia, lung infection; symptomatic treatments include:²²

- Behavioural interventions such as a hand-held fan
- Low dose oral morphine
- A benzodiazepine may be prescribed short-term for acute management of panic attacks associated with dyspnoea (anxiety-dyspnoea-anxiety cycle)²⁴
- Oxygen if hypoxic

Cough – treatment depends on the cause of cough, e.g. infection secondary to treatment, co-morbidities such as COPD or asthma:²²

- Opioid, e.g. codeine or oral morphine, to suppress cough (unapproved indication)
- Bronchodilator – if bronchospasm is causing or contributing to cough
- Inhaled corticosteroid (ICS) – for cough attributed to chemotherapy or radiation treatment; first discuss with an oncologist or other treating specialist and consider the increased risk of lower respiratory tract infection with high doses of ICS²⁵
- Antibiotics – if concurrent respiratory infection

Insomnia – use short-term in conjunction with non-pharmacological approaches:²²

- Hypnotic, e.g. zopiclone, temazepam, triazolam
- Sedating tricyclic antidepressant, e.g. amitriptyline (unapproved indication)
- For further information on pharmacological treatments, see: <https://bpac.org.nz/2017/insomnia-2.aspx>
- For further information on non-pharmacological approaches, see: <https://bpac.org.nz/2017/insomnia-1.aspx>

 For information on contraindications and cautions, dosing and treatment regimens for the listed medicines, see the New Zealand Formulary: <https://www.nzf.org.nz/>

Psychological symptoms and cognitive changes following lung cancer treatment

People who have undergone treatment for cancer may experience psychological symptoms such as fear of recurrence, insecurity about their future, guilt or shame, distress, depression and anxiety.^{17, 26} Studies measuring mental health-related quality of life (HRQoL) among people with NSCLC treated with surgery found that the majority of patients had improved mental HRQoL after surgery compared to prior to surgery, but lower mental HRQoL compared to the general population.¹⁷ Approximately one-quarter to one-third of patients continued to have worse mental HRQoL after surgery and distress persisted over time.¹⁷ Health practitioners should be vigilant for new onset or worsening psychological symptoms in people who have undergone lung cancer treatment; a screening tool for depression or anxiety can be used, e.g. the PHQ-9 or GAD-7.

 For further information on screening tools for distress and depression, behavioural and pharmacological interventions, see: <https://bpac.org.nz/2019/ssri.aspx>

 For further information on SSRIs and other pharmacological treatments, see: <https://bpac.org.nz/2021/depression.aspx>

Cognitive changes following lung cancer treatment

Many people who have undergone cancer treatment, particularly chemotherapy, report cognitive changes, including difficulty concentrating and short-term memory loss. Cognitive impairments associated with chemotherapy are typically transient, resolving in the months following the completion of treatment.^{27, 28}

 The Cancer Society provides support to people with cancer and their family/whānau: <https://www.cancer.org.nz/supporting-you/how-we-can-help/>

Post-treatment complications vary by treatment type

A number of complications may develop after completing lung cancer treatment, including:

- **Infection** – at the wound site, pneumonia, increased infection risk with radiation/chemotherapy immunosuppression³⁰
- **Radiation or chemotherapy-induced pneumonitis** – typically develops one to three months post-treatment, but can occur up to six to 12 months post-treatment.²³ Presentation includes cough, dyspnoea, chest pain, rales and hypoxaemia; radiographic changes may include volume loss and patchy infiltrates.²³

- **Peripheral neuropathy** due to chemotherapy – can involve sensory, motor or autonomic systems; typically reversible, with the median time to recovery of 13 weeks²³
- **Cardiovascular complications** – damage can occasionally occur to cardiac muscle with radiation treatment if cardiac structures are encompassed in the radiation field, causing complications such as coronary artery disease, valvular changes, myocardial fibrosis, pericarditis, dysrhythmias²³

Managing general co-morbidities after lung cancer

Co-morbidities are common in people with lung cancer. A cross-sectional study of 565 people with lung cancer in New Zealand found that 81% of people had at least one co-morbidity that could potentially influence management.³¹ Nearly 50% of people with lung cancer had COPD, 38% had a cardiovascular co-morbidity, 16% had a cerebrovascular co-morbidity and 13% had diabetes.³¹ The presence of co-morbidities can limit treatment options and is associated with an increased risk of post-treatment complications and worse survival outcomes.^{32,33}

Management of long-term conditions may have taken lower priority during active cancer treatment;¹⁴ post-treatment there is an opportunity to assess long-term condition management, review treatments and management goals.¹⁴

Regularly review medicines

Regularly review medicines to ensure that appropriate medicines are continued, and doses are adjusted as required, e.g. if the patient loses weight during cancer treatment. Depending on prognosis, consider discontinuing preventative medicines that may no longer be required, e.g. statins for hyperlipidaemia, intensive use of blood glucose-lowering medicines. Emphasise that this does not signify that you are giving up on them and frame the conversation around providing the best balance of benefits and risks.

 For further information on stopping medicines, see: <https://bpac.org.nz/2018/stopping.aspx>

Recommend vaccinations

Annual influenza vaccination is recommended for all people who have undergone lung cancer treatment.² Immunisation should be delayed until three months post-chemotherapy, unless the patient is at high risk, in which case it may be given earlier, e.g. high rates of circulating influenza in the community. Two doses, administered four weeks apart, are recommended in the first year following chemotherapy, however, only the first dose is funded.³⁴

COVID-19 vaccination is strongly encouraged for all people aged over 12 years, including those with cancer; follow national protocols for dosing advice.

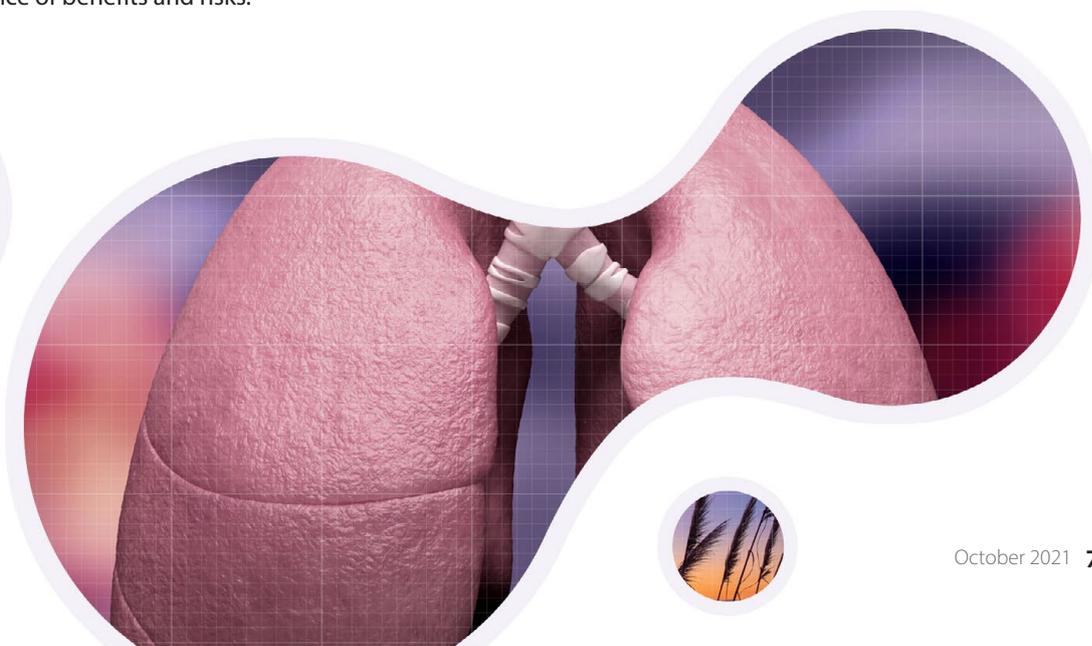
 Further information on COVID-19 for people with cancer is available from Te Aho o Te Kahu, Cancer Control Agency: <https://teaho.govt.nz/cancer/covid19>

Ensure other immunisations are up-to-date

Booster dose(s) of the following vaccines are recommended and funded for people who have undergone cancer chemotherapy:³⁵

- A diphtheria/tetanus/pertussis-containing vaccine
- Hepatitis B
- Polio (IPV)
- Pneumococcal vaccines (PCV13 followed by 23PPV)
- MMR – if born in 1969 or later and no documented evidence of two doses of MMR

N.B. Live vaccines should be administered no earlier than six months post-treatment and when the lymphocyte count is $> 1.0 \times 10^9/L$; inactive vaccines can be administered from three months post-treatment once the patient's lymphocyte count is $> 1.0 \times 10^9/L$.³⁵



Recognising lung cancer recurrence: key symptoms and signs

Table 1 lists the key symptoms and signs of local or distant lung cancer recurrence. The site and extent of recurrence determines the pattern of symptoms.³⁶ Systemic symptoms or signs such as anorexia, fatigue, weakness and unexplained weight loss may also indicate cancer recurrence.³⁶ The treatment summary will provide advice on the key symptoms and signs that require referral back to the treating specialist and the relevant contact information.²

N.B. The majority of patients will have cough and dyspnoea post-treatment, but a change in symptoms, a worsening cough or a sudden increase in dyspnoea or a return of symptoms after resolution may indicate cancer recurrence.

 **Urgent medical attention** is indicated for people with:^{37, 38}

- Massive haemoptysis
- Signs of airway obstruction, e.g. stridor (as distinct from wheeze) or respiratory distress
- Signs of superior vena cava obstruction, e.g. dilated veins in neck or over chest, swollen face or head, redness of face, visual symptoms, dizziness, headache
- Symptoms or signs of spinal cord compression

Table 1: Symptoms and signs of lung cancer recurrence.³⁶⁻³⁹

Location of lung cancer recurrence	Symptoms and signs
Local	<ul style="list-style-type: none"> ■ Haemoptysis ■ Cough ■ Dyspnoea ■ Chest or shoulder pain ■ Hoarse voice ■ Abnormal chest signs ■ Unresolved chest infection ■ Pleural effusion ■ Cervical or supraclavicular lymphadenopathy ■ Superior vena cava syndrome ■ Horner syndrome ■ Paraneoplastic syndromes (neurological changes, endocrine dysfunction, fever)
Bone	<ul style="list-style-type: none"> ■ Persistent pain ■ Leg weakness ■ Impaired mobility ■ Pathologic fractures ■ Spinal cord compression
Brain	<ul style="list-style-type: none"> ■ Headache ■ Nausea, vomiting ■ Confusion, behavioral change ■ Dizziness, seizures ■ Neurologic deficits, e.g. impaired vision, one-sided weakness, loss of co-ordination
Liver	<ul style="list-style-type: none"> ■ Abdominal pain ■ Fever ■ Anorexia ■ Weight loss ■ Hepatomegaly

Checklist for Primary Care: caring for a patient post-treatment for lung cancer

Aspect of care	What to check/do
Letter from hospital	<p>Yes No</p> <ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Discharge letter from hospital should include: diagnosis, stage of disease and treatment received <input type="checkbox"/> <input type="checkbox"/> Letter should also include treatment plan going forward <input type="checkbox"/> <input type="checkbox"/> Key contact e.g. cancer nurse specialist, oncologist <input type="checkbox"/> <input type="checkbox"/> Follow-up imaging (X-ray, CT, MRI) and pathology – check who is organising and will action the results and inform the patient
History from whānau	<p>Yes No</p> <ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Check whānau understanding of diagnosis, treatment and ongoing plan <input type="checkbox"/> <input type="checkbox"/> Check on issues such as pain, worries about treatment and their side effects and the impact of cancer on their general well-being <input type="checkbox"/> <input type="checkbox"/> Encourage whānau to initiate follow-up appointments between scheduled visits in the event of symptoms <input type="checkbox"/> <input type="checkbox"/> Check on whānau view of involvement of hospice/palliative care
Medicines	<p>Yes No</p> <ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Check current medicines (adjust doses, add and discontinue as required)
Wellness	<p>Yes No</p> <ul style="list-style-type: none"> <input type="checkbox"/> <input type="checkbox"/> Current smoking (if yes, follow ABC) <input type="checkbox"/> <input type="checkbox"/> Alcohol use <input type="checkbox"/> <input type="checkbox"/> Diet advice <input type="checkbox"/> <input type="checkbox"/> Exercise <input type="checkbox"/> <input type="checkbox"/> Sexual health <input type="checkbox"/> <input type="checkbox"/> Complementary therapies <input type="checkbox"/> <input type="checkbox"/> Spiritual health and wellbeing <input type="checkbox"/> <input type="checkbox"/> Annual influenza vaccination + other relevant vaccinations
Physical examination	<p>Perform:</p> <ul style="list-style-type: none"> <input type="checkbox"/> General physical examination including respiratory system, surgical sites etc.
Co-morbidities	<p>Perform:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check co-morbidities are recorded and treatment for cancer not interfering with management of co-morbidities <input type="checkbox"/> Assess need for specialist referral
Whānau involvement	<p>Perform:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check on key contact person <input type="checkbox"/> Ask about concerns within whānau about wellbeing of other members
Psychological support	<p>Perform:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Check for depression e.g. PHQ-9, HADS-D <input type="checkbox"/> Anxiety, e.g. GAD-7 <input type="checkbox"/> Ask about suicidal thoughts (risk is highest in the first six months following diagnosis)
Advance Care Plan	<p>Perform:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Does patient have an ACP <input type="checkbox"/> Does this include power of attorney

Adapted with permission from the National Lung Cancer Working Group draft guidance document

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