This resource has been developed as part of the Implementing Pathways for Cancer Early Diagnosis (I-PACED) project supported by the Victorian Government. It aims to increase GP awareness about critical primary care points as outlined in the lung cancer Optimal Care Pathway - a nationally endorsed resource.

**Summary statistics**
- In Victoria 2018, there were 1,745 new cases of lung cancer in males and 1,358 new cases in females
- The five-year survival for people with lung cancer is 21%.

**Prevention**
All current smokers should be offered advice to quit smoking.

- **Ask** do you currently smoke?
- **Assess** nicotine dependence
- **Advise** the most important thing they can do for their health is to quit smoking. The best way to quit is to use behavioural support and nicotine replacement therapy or pharmacotherapy
- **Assist** by offering pharmacotherapy or nicotine replacement therapy to all patients smoking more than 10 cigarettes a day, unless contraindicated. Follow up to support maintenance and prevent relapse
- **Arrange** referral to behavioural intervention (Quitline 13 7848) for individual/group smoking cessation


**Common risk factors**

**Lifestyle factors**
- Tobacco smoking (current or past).

**Personal factors**
- Age
- Family history of lung cancer
- Chronic lung disease.

**Environmental factors**
- Passive smoking
- Radon exposure
- Occupational exposure (such as asbestos and diesel exhaust)
- Air pollution.

**Screening recommendations**

**For average risk**
- No population screening improves lung cancer outcomes
- Chest X-ray not recommended for screening in asymptomatic individuals.

**For high risk**
- CT screening only considered in individuals aged 55-80 years who have a smoking history of at least 30 pack-years* and currently smoke or have quit within the past 15 years.

**Discussion should include:**
- Benefits of early detection
- High rates of false positive tests
- Decreased motivation to quit after a negative test.

**Reference**

*Pack years = number of packs of cigarettes smoked per day by the number of years the person has smoked.
Lung cancer

Figure 12:

Any of the following unexplained, persistent symptoms and signs (lasting more than 3 weeks, or earlier in patients with known risk factors or with more than one symptom or sign):

- New or changed cough
- Chest and/or shoulder pain
- Shortness of breath
- Hoarseness
- Weight loss / loss of appetite
- Persistent or recurrent chest infection
- Fatigue
- DVT
- Abnormal chest signs
- Finger clubbing
- Cervical and/or supraclavicular lymphadenopathy
- Features suggestive of lung cancer metastasis (e.g. brain, bone, liver or skin)
- Pleural effusion
- Thrombocytosis
- Persistent or unexplained haemoptysis
- Signs of superior vena cava obstruction
- High clinical suspicion of lung cancer

Imaging findings suggestive of lung cancer

Urgently refer for chest CT scan and concurrently refer (within 2 weeks) to a specialist linked to a lung cancer multidisciplinary team

Immediate referral to Emergency Department

Chest X-ray normal

- Review previous chest X-rays and other imaging tests
- Monitor for persistent symptoms
- Persistant symptoms at 6 weeks
- Persistant consolidation

Chest CT scan normal

- Refer to a respiratory physician (or a specialist with expertise in lung disease)
- Monitor for persistent symptoms
- Persistent symptoms

CHEST CT SCAN

- Abnormal or non-specific findings
- Pulmonary nodule(s) visible
- Review previous imaging tests
- No change visible but symptoms persist
- Change visible, or no previous imaging available

Chest CT scan suggests lung cancer

Urgently refer (within 2 weeks) to a specialist linked to a lung cancer multidisciplinary team (consider immediate telephone contact)

INVESTIGATIONS AND ACTIONS

- Investigation results normal
- Symptoms/indications warranting further investigation – darker shades indicating higher suspicion of lung cancer
- Symptoms/indications for specialist referral
- Symptoms/indications for ED referral

1 Be aware of the possibility of false-negative results for chest X-rays (up to 25%),13,15-17

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**Figure 2: Lung cancer assessment tool for smokers**

<table>
<thead>
<tr>
<th>Cough</th>
<th>Fatigue</th>
<th>Dyspnoea</th>
<th>Chest pain</th>
<th>Loss of weight</th>
<th>Loss of appetite</th>
<th>Thrombocytosis</th>
<th>Abnormal spirometry</th>
<th>Haemoptysis</th>
<th>PPV = Positive predictive value (%) or probability of Ca if Sx present</th>
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<tbody>
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<td>1.3</td>
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<td>&gt;10</td>
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<td>7.6</td>
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<td>&gt;10</td>
<td>&gt;10</td>
<td>&gt;10</td>
<td>#</td>
<td>Loss of weight</td>
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<td>Loss of weight</td>
</tr>
<tr>
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<td>#</td>
<td>#</td>
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<td>Loss of appetite</td>
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<td>#</td>
<td>Haemoptysis</td>
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* Second presentation

The original study was not able to calculate figures for these boxes, but they are almost certainly red.

**Figure 3: Lung cancer assessment tool for non-smokers**

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<th>Cough</th>
<th>Fatigue</th>
<th>Dyspnoea</th>
<th>Chest pain</th>
<th>Loss of weight</th>
<th>Loss of appetite</th>
<th>Thrombocytosis</th>
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<th>Haemoptysis</th>
<th>PPV = Positive predictive value (%) or probability of Ca if Sx present</th>
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<td>17</td>
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<td>Haemoptysis</td>
</tr>
</tbody>
</table>

**Probability of cancer**

- **<1%**
- **1-2%**
- **2-5%**
- **>5%**

Referral pathways

- Prior to referral, discuss the cost implications to enable patients to make an informed decision regarding their choice of specialist and health service, including out of pocket costs: for example, radiological tests and specialist appointments.
- All patients with suspected or proven lung cancer should be referred to a specialist linked with a multidisciplinary team (MDT).
- Your local MDT can be found at http://lungfoundation.com.au/mdt/ or by calling 1800 654 301.

Local referral process and proformas can be found at:
To gain access to your local HealthPathways visit https://vtphna.org.au/care-pathways-and-referral/ or equivalent care pathways site.

Referral information should include

- A summary letter that includes recent symptoms, smoking history, occupational exposure such as asbestos or other relevant risk factors, important psychosocial history and relevant past history.
- Results of current clinical investigations (imaging and pathology reports).
- Results of all prior relevant investigations.
- Notification of language spoken by patient and interpreter services required.

Patient resource checklist

- Explain to patient/carer why specific tests are being performed and what the results can indicate.
- Explain to patient/carer what the next steps are in the process, who they are being referred to and why.
- Arrange referral to behavioural intervention (Quitline 13 7848) for individual/group smoking cessation. Visit quit.org.au/generalpractice.
- For additional practical and emotional support, encourage patients to call Cancer Council 13 11 20 to speak with an experienced oncology nurse or visit www.cancervic.org.au for more information about lung cancer.
- For translator assistance call TIS on 13 14 50.
- Lung Foundation Australia – for free information packs, support and resources, visit lungfoundation.com.au or freecall 1800 654 301.