Find Cancer Early: A Guide for General Practitioners

Find Cancer Early: A Guide for General Practitioners is a tool designed to assist Western Australian (WA) General Practitioners (GPs) in the early diagnosis of patients with colorectal, lung, prostate and breast cancers. The resource reflects the most current clinical guidelines and uses the positive predictive value (PPV) tables, which are based on evidence for clinical features (including signs, symptoms and common investigations) that best predict cancer.

Colorectal Cancer

Symptoms that best predict colorectal cancer

- Rectal bleeding
- Symptoms of anaemia (tiredness or fatigue)
- Weight loss
- Abdominal pain or tenderness
- Change in bowel habit (diarrhoea or constipation)

Figure 1 shows the probability of colorectal cancer for individual and pairs of clinical features, including second* presentation.

For example, the probability of colorectal cancer for rectal bleeding alone is 2.4%, but rectal bleeding combined with an abnormal rectal exam increases the probability to 8.5%. Two separate episodes of rectal bleeding have a probability of 6.8%.

Probabilities highlighted in red are >5%, and urgent referral should be considered.

Risk factors

- Increasing age
- Previous history of colorectal cancer, adenomas or Lynch syndrome-related cancers
- Inflammatory bowel disease
- Family history of colorectal cancer (suspected Lynch syndrome); other Lynch syndrome-related cancers; or adenoma (suspected familial adenomatous polyposis (FAP) (see RACGP Red Book for risk criteria)
- Alcohol consumption, physical inactivity, unhealthy diet, obesity, smoking

Implications for practice

- Findings of a physical examination including rectal examination can significantly alter the probability of colorectal cancer.
- Conduct a full blood count in people with possible symptoms of colorectal cancer.
- Low haemoglobin in the presence of symptoms significantly raises the probability of colorectal cancer.
- Positive FOBT can provide justification for an urgent referral for colonoscopy.
- Negative FOBT does not exclude cancer in people with symptoms.
- Recent onset of symptoms in patients >40 years should be viewed with a higher degree of suspicion.

Refer all suspected colorectal cancer for colonoscopy or appropriate specialist review.

View referral contact details for metropolitan and regional WA.
Lung Cancer

Symptoms that **best** predict lung cancer ⁴
- Haemoptysis
- Thrombocytosis
- Weight loss or fatigue, particularly in smoker or ex-smoker
- Loss of appetite
- Unexplained bone or chest pain/shoulder pain
- Dyspnoea
- Cough >3 weeks or change in nature of cough
- Persistent hoarseness
- Non-resolving pneumonia
- Significant neurological signs, e.g. ataxia, weakness.

Figure 2: Probability of cancer in NON-smokers if clinical features present ⁴

<table>
<thead>
<tr>
<th>Lung cancer clinical features</th>
<th>NON-smokers (including ex-smokers)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cough</td>
<td>Fatigue</td>
</tr>
<tr>
<td>0.40</td>
<td>0.43</td>
</tr>
<tr>
<td>0.58*</td>
<td>0.63</td>
</tr>
<tr>
<td>0.57*</td>
<td>0.89</td>
</tr>
<tr>
<td>0.88*</td>
<td>1.2</td>
</tr>
<tr>
<td>0.95*</td>
<td>1.8</td>
</tr>
<tr>
<td>1.2*</td>
<td>2.3</td>
</tr>
<tr>
<td>1.7*</td>
<td>0.9</td>
</tr>
<tr>
<td>&gt;10</td>
<td></td>
</tr>
</tbody>
</table>

Probabilities highlighted in red are >5%, and urgent referral should be considered.

Figures 2 and 3 show the probability of lung cancer for individual and pairs of clinical features, including second* presentation in non-smokers (including ex-smokers) and smokers respectively.

For example, the probability of lung cancer for haemoptysis alone in non-smokers is 2.4%, but haemoptysis combined with weight loss increases the probability to 9.2%.

The probability of lung cancer for haemoptysis alone in smokers is 4.5%, but haemoptysis combined with dyspnoea increases the probability to 6.9%.

Two separate episodes of haemoptysis in non-smokers and smokers have a probability of 17% and 12% respectively.

Risk factors ⁵
- Smoker or ex-smoker
- Increasing age
- Passive smoking
- Asbestos exposure
- Occupational exposures ⁶
- Previous lung diseases
- Family history of lung cancer.

Implications for practice
- Perform early CXR in those with relevant symptoms.
- Conduct a full blood count in people with possible symptoms of lung cancer.

Diagnostic pathways

Refer all suspected lung cancer to a respiratory physician affiliated with a lung cancer multidisciplinary team (MDT).

View referral contact details for metropolitan and regional WA.
Prostate Cancer

Symptoms that best predict prostate cancer¹

- Hesitancy
- Nocturia
- Frequency or urgency
- Haematuria
- Weight loss.

Figure 4: Probability of cancer if clinical features present¹

<table>
<thead>
<tr>
<th>Clinical Feature</th>
<th>Haematuria</th>
<th>Weight loss</th>
<th>Nocturia</th>
<th>Hesitancy</th>
<th>Benign rectal exam</th>
<th>Malignant rectal exam</th>
<th>Frequency or urgency</th>
<th>PPV as a single clinical feature</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.0</td>
<td>2.2</td>
<td>3.0</td>
<td>2.8</td>
<td>12</td>
<td>2.2</td>
<td>PPV= Positive predictive value (%) or probability of cancer</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1.6*</td>
<td>1.9</td>
<td>3.3</td>
<td>3.9</td>
<td>1.8</td>
<td>Haematuria</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.1*</td>
<td>12</td>
<td>9.4</td>
<td>1.8</td>
<td></td>
<td>Loss of weight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.3*</td>
<td>2.8</td>
<td>3.9</td>
<td>15</td>
<td>3.2</td>
<td>Nocturia</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2.0*</td>
<td>3.3</td>
<td>10</td>
<td>4.7</td>
<td></td>
<td>Hesitancy</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3.1*</td>
<td>2.8</td>
<td>3.9</td>
<td>15</td>
<td>3.2</td>
<td>Frequency</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4.0</td>
<td>2.0</td>
<td>3.3</td>
<td>10</td>
<td>4.7</td>
<td>Benign rectal exam</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Rectal exam</td>
<td>malignant</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Probabilities highlighted in red are >5%, and urgent referral should be considered.

>5% probability of cancer
2-5% probability of cancer
1-2% probability of cancer
<1% probability of cancer

* Second presentation
□ denotes data unknown

Figure 4 shows the probability of prostate cancer for individual and pairs of clinical features, including second* presentation.

For example, the probability of prostate cancer for nocturia alone is 2.2%, but nocturia combined with weight loss increases the probability to 12%. Two separate presentations of nocturia have a probability of 3.3%.

Risk factors

- Increasing age
- Family history of prostate, breast or ovarian cancer (see RACGP Red Book² for risk criteria).

Implications for practice

- Severity of symptoms does not predict prostate cancer.
- Men age >40 years with lower urinary tract symptoms should have a Digital Rectal Exam (DRE) and PSA blood test.

Diagnostic option to One-Stop Prostate Clinic

Criteria for referral

- Hard, irregular prostate on DRE, regardless of PSA result
- Rising/raised age-specific PSA with symptoms.

Note: PSA should be taken at least 2 weeks after treatment for UTI. Two PSA measures should accompany referral.

For further information contact One-Stop Prostate Clinic
p: (08) 6152 6916

Fax referral to One-Stop Prostate Clinic at Fiona Stanley Hospital
f: (08) 6152 8069

Same-day assessment and TRUS biopsy at Fiona Stanley Hospital

Follow-up of results by One-Stop Prostate Clinic

Refer all suspected prostate cancer to a Urologist affiliated with a multidisciplinary team (MDT).

View referral contact details for metropolitan and regional WA.
Symptoms that best predict breast cancer:
- Lump or lumpiness in breast or axilla, especially if it's only in one breast
- Breast lump and pain
- Changes in nipple appearance, e.g. retraction, scaliness, inversion, redness
- Discharge from the nipple
- Breast pain, particularly localised with or without cyclic variation
- Change in shape or appearance of breast, e.g. dimpling, redness.

Figure 5: Probability of cancer if clinical features present

<table>
<thead>
<tr>
<th>Age (years)</th>
<th>Breast pain</th>
<th>Nipple discharge</th>
<th>Nipple retraction</th>
<th>Breast lump</th>
<th>Breast lump and pain</th>
</tr>
</thead>
<tbody>
<tr>
<td>40-49</td>
<td>0.17</td>
<td>1.2</td>
<td></td>
<td>4.8</td>
<td>4.9</td>
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<td>50-59</td>
<td>0.80</td>
<td>2.1</td>
<td>2.6</td>
<td>8.5</td>
<td>5.7</td>
</tr>
<tr>
<td>60-69</td>
<td>1.2</td>
<td>2.3</td>
<td>3.4</td>
<td>25</td>
<td>6.5</td>
</tr>
<tr>
<td>&gt;70</td>
<td>2.8</td>
<td>23</td>
<td>12</td>
<td>48</td>
<td>&gt;5</td>
</tr>
</tbody>
</table>

Probabilities highlighted in red are >5%, and urgent referral should be considered.

Risk factors:
- Family history of breast or ovarian cancer (see RACGP Red Book for risk criteria)
- Increasing age (uncommon <40 years)
- Previous diagnosis of breast cancer or DCIS
- Breast density
- Hormonal factors:
  - Longer menstrual history (age at menarche <12 years, age at menopause >55 years)
  - Use of hormonal treatments (combined hormone replacement therapy, oral contraceptive pill)
  - Conception history (age at first birth >29 years, nulliparity)
- Alcohol consumption, overweight & obesity (particularly in postmenopausal women), physical inactivity.

Implications for practice:
- The triple-test is the recommended approach in the investigation of breast changes.
- The triple-test includes:
  1. Clinical examination
  2. Imaging (mammography and/or ultrasound)
  3. Non-excision biopsy (FNA and/or core biopsy).
- If any of the triple test results are abnormal or if all three do not fit with a benign diagnosis, refer urgently to a Breast Assessment Clinic.
- Nipple retraction in women over 50 years should be investigated.
- Any new breast symptom or sign should be investigated as clinically indicated.

Diagnostic pathways:
Refer to Cancer Australia’s ‘The investigation of a new breast symptom: a guide for GPs’ for investigation pathways.

Refer all suspected breast cancer to a Breast Assessment Clinic affiliated with a multidisciplinary team (MDT).


This resource was initially developed as part of the Improving Rural Cancer Outcomes Project by The University of Western Australia, Cancer Council WA and Department of Health WA's Rural Cancer Initiative project team which investigated ways to improve cancer outcomes for people in rural WA. The resource was last updated by Cancer Council WA in August 2017.