Dear Colleague

SCOTTISH REFERRAL GUIDELINES FOR SUSPECTED CANCER

Background

1. Identifying cancer as early as possible in its development should enable treatment to begin at a much earlier stage than might otherwise be the case. Several Scottish policy and guidance documents have emphasised the importance of early referral.

2. The attached guidelines are an update of the Scottish Referral Guidelines for Suspected Cancer previously published by the Scottish Executive in May 2002. The revised guidelines have been produced by an Expert Group consulting widely with colleagues in many disciplines and take account of new research evidence and the findings of audits undertaken since publication of the previous guidelines. The recommendations made here supersede those in the early guidelines.

Action required

3. Chief Executives should disseminate these revised guidelines throughout their area and ensure that referral protocols, jointly agreed across all care sectors, are in place. Existing local referral protocols for all tumour services should also be reviewed in light of these revised guidelines. Local referral protocols should promote electronic transmission as a preferred mechanism for referral.

4. To ensure that as many individuals as possible are referred with appropriate urgency, NHS Boards and Regional Cancer Advisory Groups should jointly monitor implementation of these guidelines and their translation into locally agreed referral pathways.

5 February 2007

Addresses

For action
Chief Executives, NHS Boards
Chief Operating Officers, NHS Boards
Chairs/Lead Clinicians, Regional Cancer Advisory Groups

For information
Directors of Public Health
Medical Directors, NHS Boards
Directors of Nursing, NHS Boards
Regional Cancer Network Managers
Professional Bodies/Other organisations – see Annex

Enquiries to:
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EDINBURGH EH1 3DG
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5. Further copies of the revised Scottish Referral Guidelines for Suspected Cancer can be accessed on the Cancer in Scotland website at http://www.cancerinscotland.scot.nhs.uk/index.htm


Yours sincerely

Dr H Burns
Chief Medical Officer

Derek Feeley
Director of Healthcare Policy and Strategy
SCOTTISH REFERRAL GUIDELINES FOR SUSPECTED CANCER

Professional bodies/other organisations to whom this letter and Annex have been sent are:

- Members of the Scottish Cancer Group
- Royal College of Surgeons, Edinburgh
- Royal College of Physicians, Edinburgh
- Royal College of Physicians and Surgeons, Glasgow
- Royal College of General Practitioners, Scottish Council
- Royal College of Obstetricians & Gynaecologists
- Royal College of Radiologists
- Royal College of Pathologists
- College of Radiographers
- Royal Pharmaceutical Society of Great Britain, Scottish Department
- Academy of Royal Colleges and Faculties in Scotland
- British Medical Association, Scottish Office
- Scottish Joint consultants’ Committee
- Royal College of Nursing Scottish Board
- Scottish General Practitioners Committee
- Scottish Health Council
- Scottish Cancer Coalition
- Scottish Medical and Scientific Advisory Committee
SCOTTISH REFERRAL GUIDELINES FOR SUSPECTED CANCER

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3 Lower Gastrointestinal Cancers
4 Breast Cancer
5 Gynaecological Cancers
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7 Haematological malignancies
8 Skin Cancers
9 Head and Neck Cancers
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11 Sarcomas
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1 Malignant spinal cord compression
2 Glossary
3 Members of Scottish Cancer Group – Referral Guidance Sub-group
INTRODUCTION

1 Background

This guideline is an update of the Scottish Referral Guidelines for Suspected Cancer published by the Scottish Executive Health Department in 2002. The new guideline takes account of new research evidence and the findings of audits undertaken since the publication of the previous guideline.

In line with the previous referral guidelines, the aim of these updated guidelines is to facilitate appropriate referral between primary and secondary care for patients whom a GP suspects may have cancer. The guidelines should help GPs to identify those patients who are most likely to have cancer and who therefore require urgent assessment by a specialist. Equally it is hoped that the guidelines will help GPs to identify patients who are unlikely to have cancer and who may appropriately be observed in a primary care setting or who may require non-urgent referral to a hospital.

2 Context

A sub-group of the Scottish Cancer Group developed referral guidelines in 2002 to help identify those patient requiring urgent investigation to confirm or otherwise a diagnosis of cancer. The sub-group took as its starting point the guidelines developed by the Department of Health.

The National Institute for Health and Clinical Excellence (NICE) reviewed the English referral guidelines and the NICE Referral guidelines for suspected cancer were issued in June 2005. In Scotland a group was established to consider, together with the wider cancer networks, whether there was sufficient new evidence to support recommendations for change to the Scottish Referral Guidelines published in 2002.

3 Development of Guidelines

Members with specific clinical experience with the cancer concerned, who consulted widely with others in Scotland to ensure a consensus as to best practice, considered these guidelines. Where SIGN Guidelines are in place or are being revised, every effort has been taken to ensure consistency between these guidelines and SIGN.

4 Achieving a Balance

Members of the sub-group were aware of the need to achieve a balance when setting criteria for urgent referral. If the threshold is set too high patients with a significant possibility of having cancer will be excluded. Furthermore the criteria would be likely to be limited to patients with the most obvious symptoms, who may be most likely to have advanced and/or incurable disease. On the other hand, if the threshold is set too low, a very large number of patients might be referred urgently causing them unnecessary anxiety and distress. Furthermore, hospital clinics could be overwhelmed, which would be to the detriment of patients with cancer and also to those with other serious illnesses.
5 Primary Care Perspective

Although cancer is a common problem with approx. 26,000 new cases being diagnosed annually in Scotland (excluding non-melanoma skin cancers), an individual GP is likely to see only about 7 to 8 new cases per annum. The average number of new cases p.a. of individual cancer types for a GP with a list size of 1500 patients is shown in Table 1. Even for the commonest of cancers (lung cancer) an individual GP is only likely to see on average one or two new cases per annum. An individual GP will also see about one new patient with breast cancer and one with colorectal cancer per annum, but will only see a new case of ovarian cancer once every 5 years and a new case of testicular cancer about every 15 years.

The task for the GP is to differentiate between patients whose symptoms may be due to cancer and the much larger number of patients with similar symptoms arising from other causes (see Table 2). For certain symptoms it may be entirely appropriate for a GP to wait to see if the symptom resolves. Persistence or worsening of the symptom may alert the GP to the possibility of cancer. Wherever possible these factors have been taken into account in the development of these guidelines.

6 Summary

6.1 Interactive Protocol/Pathways

Electronically generated proformas (and direct electronic links between primary and secondary care) would be welcomed by many GPs. Regional Cancer Networks are ideally placed to work with clinicians to develop tumour specific protocols. Some of the tools to help with this work are noted below.

National Clinical Data Set Development Programme (NCDDP)

Data standards to support implementation of the Generic Clinical System (GCS) early implementers (breast, head & neck and endometrial cancers) have been developed and approved through the National Clinical Data Set Development Programme (NCDDP) – these data standards have now been published in the Health and Social Care Data Dictionary and are being used in the Generic Clinical System (GCS) developments. National cancer audit data sets have also been developed and maintained by ISD under the direction and coordination of the regional cancer networks. These two activities are now being coordinated so that audit, waiting times and other clinical effectiveness data can be obtained as a secondary use from clinical systems. More information is available at www.clinicaldatasets.scot.nhs.uk/index.htm

SCI Gateway

Scottish Care Information (SCI) Gateway is a national system that integrates primary and secondary care systems using familiar yet highly secure internet technology. SCI Gateway is fully integrated with the GPASS primary care system, enabling GPs to access SCI services on-line.
SCI Gateway Protocol Library

SCI has provided access to the XML used to create the protocols that are available on the LIVE instance of the SCI Gateway. These are available at the Protocol Library - http://www.sci.scot.nhs.uk/products/gateway/gateway_prot_library.htm This gives both the protocol and the XML behind it so that developers could utilise the code and the dataset for their own local protocols. However the disclaimers noted should be taken into consideration and also that the web site is not updated in real time.

Example of good practice

NHS Lothian has established a website for all protocols and anyone can access these at www.refviewer.scot.nhs.uk/

ECCI-Grampian and RCGP (North East) have established a website containing referral guidance along with other clinical information for use by NHS clinical staff and especially for General Practitioners. This can be accessed at http://www.show.scot.nhs.uk/nhsgclinicalguidance/

Centre for Change and Innovation – The Outpatients’ Programme - Patient Pathways

As a result of this project over 80 Patient Pathways in 12 Specialties have been developed to provide GPs with the most up to date evidence and information on:
- criteria for referral to a Consultant
- alternative referral to AHPs/Specialist Nurses
- follow up options
- diagnostic tests
- management tips

Patient Pathways are symptom based and provide information on the most common conditions that are encountered in Outpatients – they do not replace the Scottish Referral Guidelines for Suspected Cancer but complement them. They can be accessed on a dedicated National Patient Pathways website at http://www.pathways.scot.nhs.uk/

6.4 Medico-legal issues

The medico-legal implications for referral guidelines are the same as those for other forms of guidance i.e. the referral guidelines are not mandatory but represent guidance on best available evidence. Clinical judgement will, in addition to guidelines, play an important part in reaching any clinical decision. Failure to take due account of the contents of the guidelines could have medico-legal implications.

6.5 Dissemination of the guidelines

The need for the guidelines to be widely disseminated was accepted. The methods by which this should best be done will be determined locally, but they will be made publicly available via the Cancer in Scotland website - http://www.show.scot.nhs.uk/sehd/cancerinScotland/
7. **Patients’ and carers’ needs in the referral process.**

All health care professionals must:

- be sensitive to the patient’s wishes to be involved in decisions about their care;
- provide understandable information at a level appropriate to the patient’s wishes to be informed;
- provide information about any referral to other services, whether to secondary or tertiary care, including how long they might have to wait, who they are likely to see, and what is likely to happen to them;
- consider carefully the need for physical and emotional support whilst awaiting an appointment with a specialist;
- consider any carer’s needs for support and information, taking issues of confidentiality into consideration;
- take the individual’s particular circumstances into account, e.g. age / family / work / culture;
- be aware of, and offer to provide, access to sources of information in various formats;
- and

- maintain a high standard of communication skills, including, for example, in the process of breaking bad news.
### Table 1

**Incidence of Selected Cancers (Adults Aged 15+ years, Scotland, 2003)**

<table>
<thead>
<tr>
<th>Cancer</th>
<th>ICD-10 code</th>
<th>Total new cases</th>
<th>No. cases per 1,500 pop</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lung</td>
<td>C33&amp;C34</td>
<td>4398</td>
<td>1.30</td>
</tr>
<tr>
<td>Upper GI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oesophagus</td>
<td>C15</td>
<td>800</td>
<td>0.24</td>
</tr>
<tr>
<td>Stomach</td>
<td>C16</td>
<td>823</td>
<td>0.24</td>
</tr>
<tr>
<td>Pancreas</td>
<td>C25</td>
<td>657</td>
<td>0.19</td>
</tr>
<tr>
<td>Lower GI</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Colon</td>
<td>C18</td>
<td>2244</td>
<td>0.67</td>
</tr>
<tr>
<td>Rectum</td>
<td>C19&amp;C20</td>
<td>1125</td>
<td>0.33</td>
</tr>
<tr>
<td>Breast</td>
<td>C50</td>
<td>3852</td>
<td>1.14</td>
</tr>
<tr>
<td>Gynaecological</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Ovary</td>
<td>C56</td>
<td>613</td>
<td>0.18</td>
</tr>
<tr>
<td>Uterus</td>
<td>C54&amp;C55</td>
<td>501</td>
<td>0.15</td>
</tr>
<tr>
<td>Cervix</td>
<td>C53</td>
<td>258</td>
<td>0.08</td>
</tr>
<tr>
<td>Urological</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bladder</td>
<td>C67</td>
<td>748</td>
<td>0.22</td>
</tr>
<tr>
<td>Prostate</td>
<td>C61</td>
<td>2328</td>
<td>0.69</td>
</tr>
<tr>
<td>Kidney</td>
<td>C64&amp;C65</td>
<td>579</td>
<td>0.17</td>
</tr>
<tr>
<td>Testis</td>
<td>C62</td>
<td>187</td>
<td>0.06</td>
</tr>
<tr>
<td>Haematological</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leukaemia</td>
<td>C91-C95</td>
<td>639</td>
<td>0.19</td>
</tr>
<tr>
<td>NHL</td>
<td>C82-C85</td>
<td>858</td>
<td>0.25</td>
</tr>
<tr>
<td>Hodgkin's</td>
<td>C81</td>
<td>120</td>
<td>0.04</td>
</tr>
<tr>
<td>Myeloma</td>
<td>C90</td>
<td>317</td>
<td>0.09</td>
</tr>
<tr>
<td>Skin</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Melanoma</td>
<td>C43</td>
<td>768</td>
<td>0.23</td>
</tr>
<tr>
<td>Basal cell carcinoma</td>
<td>C44(^3)</td>
<td>5493</td>
<td>1.63</td>
</tr>
<tr>
<td>Squamous cell carcinoma</td>
<td>C44(^4)</td>
<td>1846</td>
<td>0.55</td>
</tr>
<tr>
<td>Head &amp; Neck</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Mouth, lip, pharynx</td>
<td>C00-C14</td>
<td>681</td>
<td>0.20</td>
</tr>
<tr>
<td>Larynx</td>
<td>C32</td>
<td>291</td>
<td>0.09</td>
</tr>
<tr>
<td>Thyroid</td>
<td>C73</td>
<td>144</td>
<td>0.04</td>
</tr>
<tr>
<td>Brain</td>
<td>C71</td>
<td>317</td>
<td>0.09</td>
</tr>
<tr>
<td>Sarcoma</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Soft tissue</td>
<td>C46, C47 &amp; C49</td>
<td>126</td>
<td>0.04</td>
</tr>
<tr>
<td>Bone</td>
<td>C40&amp;C41</td>
<td>31</td>
<td>0.01</td>
</tr>
<tr>
<td>Other(^5)</td>
<td></td>
<td>2470</td>
<td>0.73</td>
</tr>
<tr>
<td>Total, not including basal and squamous cell carcinomas(^6)</td>
<td>25875</td>
<td>7.67</td>
<td></td>
</tr>
<tr>
<td>Total, including basal and squamous cell carcinomas(^7)</td>
<td>33232</td>
<td>9.86</td>
<td></td>
</tr>
</tbody>
</table>

1 1,500 represents an approximate estimate of the average list size per GP in Scotland, 2000
2 Rates based on total Scottish population of 5057400
3 C44 in conjunction with ICD-O morphology code M-809
4 C44 in conjunction with ICD-O morphology code M-807
5 ‘Other’ cancers include unspecified or ill-defined sites, specific sites not mentioned above, and secondary malignant neoplasms
6 All malignant neoplasms (ICD-10 C00-C96), excluding non-melanoma skin cancer
7 All malignant neoplasms (ICD-10 C00-C96), excluding non-melanoma skin cancer other than basal and squamous cell carcinomas

Source: Scottish Cancer Registry, ISD, September 2006
Table 2
Common Symptoms in Adult Patients with Cancer

Note: This is not intended as an exhaustive list of symptoms of cancer – but rather to demonstrate the overlap with conditions which are seen frequently in a General Practice setting.

<table>
<thead>
<tr>
<th>Common Symptoms</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Lung</strong></td>
</tr>
<tr>
<td>Breathlessness; cough; haemoptysis; fatigue</td>
</tr>
<tr>
<td><strong>Upper GI</strong></td>
</tr>
<tr>
<td>Dyspepsia; epigastric pain; heartburn; dysphagia; weight loss; jaundice</td>
</tr>
<tr>
<td><strong>Lower GI</strong></td>
</tr>
<tr>
<td>Rectal bleeding; change in bowel habit</td>
</tr>
<tr>
<td><strong>Breast</strong></td>
</tr>
<tr>
<td>Breast lump</td>
</tr>
<tr>
<td><strong>Gynaecological Cancers</strong></td>
</tr>
<tr>
<td><em>Ovary</em></td>
</tr>
<tr>
<td>Lower abdominal pain</td>
</tr>
<tr>
<td><em>Endometrium</em></td>
</tr>
<tr>
<td>Postmenopausal bleeding</td>
</tr>
<tr>
<td><em>Cervix</em></td>
</tr>
<tr>
<td>Postmenopausal bleeding; postcoital bleeding</td>
</tr>
<tr>
<td><strong>Urological Tumours</strong></td>
</tr>
<tr>
<td><em>Bladder</em></td>
</tr>
<tr>
<td>Haematuria</td>
</tr>
<tr>
<td><em>Prostate Cancer</em></td>
</tr>
<tr>
<td>Lower urinary symptoms and bone pain</td>
</tr>
<tr>
<td><em>Testicular Tumours</em></td>
</tr>
<tr>
<td>Testicular swelling</td>
</tr>
<tr>
<td><strong>Skin Cancers</strong></td>
</tr>
<tr>
<td><em>Melanoma</em></td>
</tr>
<tr>
<td>Pigmented lesions/moles</td>
</tr>
<tr>
<td><em>Squamous Cell Ca</em></td>
</tr>
<tr>
<td>Crusted, non-healing lesions</td>
</tr>
<tr>
<td><strong>Head and Neck Cancers</strong></td>
</tr>
<tr>
<td><em>Larynx</em></td>
</tr>
<tr>
<td>Hoarseness; neck lump/cervical lymphadenopathy</td>
</tr>
<tr>
<td><em>Oral</em></td>
</tr>
<tr>
<td>Mouth ulcer; neck lump/cervical lymphadenopathy</td>
</tr>
<tr>
<td><strong>Brain</strong></td>
</tr>
<tr>
<td>Headache; seizures; progressive neurological deficit</td>
</tr>
<tr>
<td><strong>Sarcoma</strong></td>
</tr>
<tr>
<td><em>Soft Tissue Sarcoma</em></td>
</tr>
<tr>
<td>Soft tissue swelling</td>
</tr>
</tbody>
</table>
8

**Importance of Age as a Discriminating Factor**

The incidence of many cancers increases with age. For some cancers age may be one of the most useful discriminating factors.

**Table 3**

**Age at Cancer Diagnosis, Patients Diagnosed 2003**

<table>
<thead>
<tr>
<th>Cancer</th>
<th>&lt;40</th>
<th>40-49</th>
<th>50-59</th>
<th>60-69</th>
<th>70-79</th>
<th>80+</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
<td>%</td>
</tr>
<tr>
<td>Lung</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Oesophagus</td>
<td>&lt;1</td>
<td>3</td>
<td>11</td>
<td>23</td>
<td>33</td>
<td>25</td>
</tr>
<tr>
<td>Stomach</td>
<td>1</td>
<td>3</td>
<td>9</td>
<td>23</td>
<td>39</td>
<td>25</td>
</tr>
<tr>
<td>Pancreas</td>
<td>&lt;1</td>
<td>4</td>
<td>11</td>
<td>25</td>
<td>36</td>
<td>24</td>
</tr>
<tr>
<td>Colon</td>
<td>1</td>
<td>4</td>
<td>11</td>
<td>24</td>
<td>35</td>
<td>27</td>
</tr>
<tr>
<td>Rectum</td>
<td>1</td>
<td>4</td>
<td>15</td>
<td>28</td>
<td>32</td>
<td>20</td>
</tr>
<tr>
<td>Breast</td>
<td>5</td>
<td>14</td>
<td>25</td>
<td>22</td>
<td>20</td>
<td>14</td>
</tr>
<tr>
<td>Ovary</td>
<td>7</td>
<td>11</td>
<td>18</td>
<td>25</td>
<td>23</td>
<td>16</td>
</tr>
<tr>
<td>Uterus</td>
<td>&lt;1</td>
<td>5</td>
<td>24</td>
<td>33</td>
<td>24</td>
<td>14</td>
</tr>
<tr>
<td>Cervix</td>
<td>38</td>
<td>19</td>
<td>12</td>
<td>14</td>
<td>11</td>
<td>7</td>
</tr>
<tr>
<td>Bladder</td>
<td>&lt;1</td>
<td>2</td>
<td>10</td>
<td>24</td>
<td>38</td>
<td>27</td>
</tr>
<tr>
<td>Prostate</td>
<td>0</td>
<td>&lt;1</td>
<td>9</td>
<td>30</td>
<td>41</td>
<td>19</td>
</tr>
<tr>
<td>Kidney</td>
<td>3</td>
<td>9</td>
<td>17</td>
<td>23</td>
<td>30</td>
<td>18</td>
</tr>
<tr>
<td>Testis</td>
<td>65</td>
<td>21</td>
<td>10</td>
<td>3</td>
<td>1</td>
<td>&lt;1</td>
</tr>
<tr>
<td>Leukaemia</td>
<td>13</td>
<td>6</td>
<td>11</td>
<td>18</td>
<td>31</td>
<td>21</td>
</tr>
<tr>
<td>NHL</td>
<td>7</td>
<td>10</td>
<td>15</td>
<td>25</td>
<td>27</td>
<td>17</td>
</tr>
<tr>
<td>Hodgkin's</td>
<td>51</td>
<td>18</td>
<td>10</td>
<td>10</td>
<td>8</td>
<td>3</td>
</tr>
<tr>
<td>Myeloma</td>
<td>2</td>
<td>4</td>
<td>12</td>
<td>24</td>
<td>28</td>
<td>30</td>
</tr>
<tr>
<td>Melanoma</td>
<td>18</td>
<td>15</td>
<td>16</td>
<td>20</td>
<td>17</td>
<td>15</td>
</tr>
<tr>
<td>Basal Cell Carcinoma</td>
<td>3</td>
<td>7</td>
<td>15</td>
<td>24</td>
<td>30</td>
<td>21</td>
</tr>
<tr>
<td>Squamous Cell</td>
<td>&lt;1</td>
<td>2</td>
<td>5</td>
<td>16</td>
<td>33</td>
<td>43</td>
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<tr>
<td>Bone</td>
<td>16</td>
<td>10</td>
<td>16</td>
<td>25</td>
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<td>12</td>
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<tr>
<td>Soft tissue</td>
<td>19</td>
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<td>18</td>
<td>25</td>
<td>13</td>
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<tr>
<td>Bone</td>
<td>70</td>
<td>9</td>
<td>9</td>
<td>7</td>
<td>5</td>
<td>0</td>
</tr>
</tbody>
</table>

Source: Scottish Cancer Registry, ISD September 2006

**Table 3** shows that:

- For several common cancers, 1% or less of cases are diagnosed before 40 years. These include:

<table>
<thead>
<tr>
<th>Lung</th>
<th>Larynx</th>
<th>Oesophagus</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stomach</td>
<td>Pancreas</td>
<td>Colorectal</td>
</tr>
<tr>
<td>Bladder</td>
<td>Prostate</td>
<td>Uterus</td>
</tr>
<tr>
<td>Squamous Cell Carcinoma</td>
<td></td>
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</tr>
</tbody>
</table>
• For the following cancers only 2-5 % of cases are diagnosed before 40 years:

  Kidney  Breast  Basal Cell Carcinoma

  Mouth, lip, pharynx  Myeloma

• For some cancers the distribution across age groups is more even. These include:

  Thyroid  Non-Hodgkin’s  Lymphoma

  Melanoma  Brain  Soft tissue sarcoma

  Leukaemia  Ovary

• Some cancers are most common in those <40 years. These include:

  Cervix  Testicular cancer  Bone sarcoma

  Hodgkin’s disease

Example

Only 1% of colorectal cancers occur in patients under 40 years whereas rectal bleeding is commonest in the 30-40 year age group. The likelihood of a patient of less than 40 years with rectal bleeding (and no other adverse symptoms) having cancer has been estimated as 1 in 400. This can be compared with a likelihood of 1 in 300 for an asymptomatic person of 60 years. It would seem illogical that people aged less than 40 years with rectal bleeding as their only symptom should be referred urgently to a specialist when we would not advocate this for an asymptomatic person aged 60. These considerations will, however, need to be carefully explained to patients.

Note: Some tumours occur almost exclusively in children.
9 Format of the Guidelines

The guidelines are presented in 12 tumour groups – each tumour group covering cancers which are likely to be dealt with initially by a particular team within a hospital (e.g. respiratory physicians, gynaecologists, urologists, dermatologists, paediatricians, etc).

There is not complete uniformity in the layout of all tumour chapters as tumour specific leads advised slightly differing layouts to reflect the disparate nature of symptoms and patterns of disease.

For each tumour group however the guidelines include information on:

(i) Key points about the characteristics of patients with the relevant cancers.

(ii) Guidelines for urgent referral.

Appendix I is devoted to malignant spinal cord compression, a common complication of cancer and one of the clinical emergencies in oncology where awareness and urgent referral can make a critical difference to the outcome.

10 Coverage of Cancers within the Guidelines

The 12 tumour groups account for the overwhelming majority of all cancers.

Some patients present to their General Practitioners with clinical or radiological features suggestive of metastatic cancer (e.g. with features suggestive of bone, lung or liver secondaries) but with no obvious primary tumour. Some of these patients will require emergency admission to hospital. In other cases urgent referral will be appropriate, the route of referral being at the discretion of the General Practitioner.

11 Audit and Review of the Guidelines

Members of the sub-group are fully aware of the limitations of the guidelines in their current form. However, we believe that careful monitoring of the guidelines in practice will generate a valuable amount of new information which should be used to revise the guidelines in the future. It is strongly recommended that Regional Cancer Advisory Groups prospectively audit the value of these guidelines:

- Do GPs find the guidelines useful?
- How frequently do GPs adhere to the guidelines when making an urgent referral?
- Which combinations of age, symptoms, signs, etc yield the highest/lowest diagnostic ratios amongst urgently referred cases?
- What are the characteristics of patients with cancer who present as non-urgent cases?
1 LUNG CANCER

1.1 Risk factors: About 90% of patients are smokers or ex-smokers

Predominant Symptoms at presentation: Cough
Dyspnœa
Haemoptysis
Weight loss
Chest/shoulder pain
Hoarseness
Fatigue

More than 90% of patients are symptomatic at the time of diagnosis.

Chest x-ray findings are abnormal in over 96% of symptomatic patients. **However, a normal chest x-ray does not exclude a diagnosis of lung cancer.**

In most cases it is appropriate for a GP to request a chest x-ray as an initial investigation, with referral to a Chest Physician if the chest x-ray is suggestive/suspicious of lung cancer. A number of redesign projects have shown the feasibility of direct referral from Radiologist to Chest Physician when an abnormality is identified on chest x-ray, with considerable shortening of the patient journey. Managed clinical networks are encouraged to explore such arrangements. Communication with the general practitioner is paramount if such processes are to be acceptable.

In a limited number of circumstances, urgent referral to a Chest Physician is appropriate without requesting a chest x-ray.
1.2 Lung Cancer: Guidelines for Urgent Referral

Note: In most cases where lung cancer is suspected it is appropriate to arrange an urgent chest x-ray before urgent referral to a chest physician (see above regarding direct referral by radiologist).

A Urgent Referral for a Chest X-ray

- Haemoptysis
- Unexplained or persistent (more than 3 weeks)
  - cough
  - chest/shoulder pain
  - dyspnoea
  - weight loss
  - chest signs
  - hoarseness (but see page 34)
  - finger clubbing
  - features suggestive of metastasis from a lung cancer (e.g. brain, bone, liver or skin)
  - persistent supraclavicular lymphadenopathy
  - fatigue in a smoker over 50 years of age

B Urgent referral to a Chest Physician

Any of the following:

- Chest x-ray suggestive/suspicious of lung cancer (including pleural effusion and slowly resolving consolidation).
- Persistent haemoptysis in smokers/ex-smokers over 40 years of age.
- Signs of superior vena caval obstruction (swelling of face/neck with fixed elevation of jugular venous pressure).
- Stridor (consider emergency referral).
- Any of the symptoms in 1.2A (above) persisting for longer than 6 weeks despite normal chest x-ray.
1.3  *Mesothelioma*

**Risk factors**  80-90% of patients will have a history of asbestos exposure:

**Predominant Symptoms:**  
- Chest pain
- Dyspnoea
- Sweats
- Fatigue

*Guidelines for urgent referral*

Individuals >45 years with history of asbestos exposure and a recent onset of chest pain, shortness of breath or unexplained systemic symptoms should have a chest X-ray. If this is indicative of a pleural effusion or pleural mass, patients should be referred to a chest physician for a single attempt at pleural biopsy prior to referral, if necessary, for open biopsy if unsuccessful.
2 UPPER GASTROINTESTINAL CANCERS

2.1 Key Points

The incidence of stomach cancer and cancer of the pancreas is decreasing, whereas the incidence of oesophageal cancer is increasing.

Risk Factors: Smoking  ) for squamous carcinoma only
                   Alcohol  )

Common Symptoms in Cancer Patients

| Oesophageal/Gastric Cancer*: | Weight Loss 57% |
|                            | Dysphagia 50%  |
|                            | Heartburn/pain 30% |
|                            | Vomiting 25%    |
|                            | Anaemia 20%     |

| Pancreas:                  | Jaundice 90%   |
|                           | Abdominal mass 80% |
|                           | Epigastric pain 70% |
|                           | Weight loss 60%  |

Dysphagia is a relatively uncommon symptom in a community/general practice setting. Patients with difficulty swallowing food should always be referred for further investigation.

For further information on the management of Dysphagia see Scottish Intercollegiate Guideline (SIGN) Management of oesophageal and gastric cancer Guideline No 87 available at http://www.sign.ac.uk/pdf/sign87.pdf

Dyspepsia is an extremely common problem in a community/general practice setting. The index of suspicion of cancer is very considerably raised if dyspepsia is combined with an ‘alarm’ symptom (weight loss, vomiting, anaemia). In patients aged over 55 years recent onset of dyspepsia and/or continuous symptoms is associated with an increased risk of cancer. For further information on the management of Dyspepsia see Scottish Intercollegiate Guideline (SIGN) Dyspepsia Guideline No. 68 available at http://www.sign.ac.uk/guidelines/fulltext/68/index.html

*all figures from the Scottish Audit of Gastric and Oesophageal Cancer

Local arrangements should be made to determine whether patients requiring urgent assessment are seen in a clinic setting or are directly referred for endoscopy. However, GPs and hospital providers will wish to ensure that the wait for the diagnostic test is kept to a minimum.
2.2 **Upper G.I Cancers: Guidelines for Urgent Referral**

- Dysphagia – food sticking on swallowing (any age)

- Dyspepsia at any age combined with one or more of the following ‘alarm’ symptoms:
  - weight loss
  - proven anaemia
  - vomiting

- Dyspepsia in a patient aged 55 years or more with at least one of the following ‘high risk’ features:
  - onset of dyspepsia less than one year ago
  - continuous symptoms since onset

- Dyspepsia combined with at least one of the following known risk factors:
  - family history of Upper GI cancer in more than 2 first degree relatives
  - family history of colorectal cancer (familial adenomatous polyposis, hereditary non-polyposis colorectal cancer)
  - Barrett’s oesophagus
  - pernicious anaemia
  - peptic ulcer surgery over 20 years ago
  - known dysplasia, atrophic gastritis, intestinal metaplasia

- Jaundice

- Upper abdominal mass

- Back pain and weight loss
3 LOWER GASTROINTESTINAL CANCER

Lower gastrointestinal symptoms are common in the community. Rectal bleeding for instance is estimated to affect 140,000 individuals per 1 million population each year. There are large differences in the predictive value of rectal bleeding for cancer according to its association with other symptoms and signs and the age of the patient. Different management strategies should be adopted according to cancer risk so that those patients with transient low-risk symptoms caused by benign disease avoid unnecessary investigation. The following protocol is recommended for managing patients with rectal bleeding and features associated with a possible diagnosis of colorectal cancer:

**Low risk features**
- **Transient** symptoms (<6 weeks)
- Patient < 40 years

**Watch and wait (6 weeks)**
- Assessment and Review
- Setting determined locally
- Patient agreement required
- Appropriate information and counselling

**No further symptoms**
- Discharge

**High risk features**
- **Persistent** rectal bleeding without anal symptoms
- **Persistent** change in bowel habit (>6 weeks)
- Significant family history
- Right sided abdominal mass
- Palpable rectal mass
- Unexplained iron deficiency anaemia
- Patients with persistent diarrhoea
- Patients in whom there is clinical doubt

**Review**
- **E- communication**
- Structured proforma
- Decision support

**Refer**
- **E- communication**
- Structured proforma
- Decision support

**Visualisation of the large bowel**

* Adequate and appropriate information available throughout pathway
Key points:

i. “Watch and wait” is appropriate for patients less than 40 years of age with low risk features and particularly those with very transient symptoms. The duration of “watch and wait” can be flexible and tailored to individual patients but a period of six weeks is recommended. A clear mechanism for follow-up is needed but this will not necessarily require return to the clinic. Review by telephone or e-mail might be appropriate. If the presenting problem resolves then no further action is required. If it does not, or if there is continuing concern then the patient should be referred for investigation/treatment as per care plan.

ii. **Family history:** This should be obtained and might be relevant but review by a Regional Clinical Genetics Service is recommended for accurate risk assessment if this is the principal indication for referral for investigation.

iii. **Investigations:** No examinations or investigations other than abdominal and rectal examination and full blood count are recommended. Faecal occult blood testing (FOBt) is not indicated and should not influence decision making in symptomatic patients.
4 BREAST CANCER

<table>
<thead>
<tr>
<th>Refer</th>
<th>LUMP</th>
<th>Primary Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>• any new discrete lump</td>
<td>• young women &lt;35 years with longstanding tender, lumpy breasts</td>
<td></td>
</tr>
<tr>
<td>• new lump in pre-existing nodularity</td>
<td>• older women with symmetrical nodularity if no localised abnormality</td>
<td></td>
</tr>
<tr>
<td>• new asymmetrical nodularity that persists at review after menstruation</td>
<td>• tender developing breasts in young girls</td>
<td></td>
</tr>
<tr>
<td>• non lactational abscess or mastitis which does not settle after one course of antibiotics</td>
<td>• bilateral fatty gynaecomastia without focal abnormality</td>
<td></td>
</tr>
<tr>
<td>• abscess in patient &gt;40 even after settled (for mammogram)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• cyst persistently refilling or recurrent cyst</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• unilateral axillary lymph node</td>
<td></td>
<td></td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Refer</th>
<th>PAIN</th>
<th>Primary Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>• unilateral persistent pain in post-menopausal women</td>
<td>• women with moderate degrees of breast pain no discrete palpable lesion</td>
<td></td>
</tr>
<tr>
<td>• if associated with a lump</td>
<td>• women &lt;50 – eliminate caffeine drinks such as tea, coffee or caffeine containing fizzy drinks</td>
<td></td>
</tr>
<tr>
<td>• intractable pain that interferes with a patient’s lifestyle or sleep and which has failed to respond to reassurance or simple measures such as wearing a well-supporting bra and common drugs (GLA)</td>
<td>• women may wish to use a propriety source of Gamolenic (Gamolinoleic) Acid (GLA)</td>
<td></td>
</tr>
<tr>
<td>• consider issuing pain advice leaflet</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Refer</th>
<th>NIPPLE SYMPTOMS</th>
<th>Primary Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>• women &lt;50 with persistent discharge, which is: bloodstained; (dipstick for blood) or single duct</td>
<td>• women &lt;50 with nipple discharge from &gt;1 duct, intermittent – not bloodstained (urine dipstick for blood)</td>
<td></td>
</tr>
<tr>
<td>• bilateral troublesome discharge sufficient to stain outer clothes (ie. would consider surgery)</td>
<td>• longstanding nipple retraction</td>
<td></td>
</tr>
<tr>
<td>• all women &gt;50 with discharge</td>
<td>• nipple eczema if present elsewhere – treat with topical steroids</td>
<td></td>
</tr>
<tr>
<td>• new nipple retraction</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• nipple eczema if not elsewhere or unresponsive to topical steroids</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Refer</th>
<th>SKIN CHANGES</th>
<th>Primary Care</th>
</tr>
</thead>
<tbody>
<tr>
<td>• skin tethering</td>
<td>• Obvious simple skin lesions e.g. sebaceous cysts should be managed as when present elsewhere and not referred to a breast clinic</td>
<td></td>
</tr>
<tr>
<td>• fixation</td>
<td>• Abscess or inflammation – try one course of antibiotics to cover staphylococcus and streptococcus (eg. co-amoxyclov)</td>
<td></td>
</tr>
<tr>
<td>• ulceration</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• abscess or breast inflammation if not settled after one course of antibiotics</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• abscess or inflammation in patient &gt;40 even after settled to exclude underlying cause (mammogram)</td>
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</tr>
</tbody>
</table>
Only 5% of all breast cancer is genetically determined, making family members at increased risk.

The following identifies women who have a higher than normal risk of developing breast cancer and can be referred to a Genetic Assessment Clinic to stratify their risk.

A woman who has on the same side of her family:

- **3 or more** relatives with breast cancer = clear family history
- **2** relatives under 60 with breast cancer, but **only if 1st** degree relatives of each other (or related through a male)
- **1** relative with breast cancer – for this to be a significant family history, there must be a particular feature suggestive of genetic breast cancer ie.
  - bilateral breast cancer
  - male breast cancer
  - breast cancer diagnosed under the age of 40 years **or**
  - breast and ovarian cancer on the same side of the family.

Notes:
- **1st degree** = mother, sister, daughter; **2nd degree** = grandmother, granddaughter, aunt, niece.
- A patient with only one relative with unilateral breast cancer, diagnosed after age 40 does not have a significant risk, therefore can be reassured.
- Risk is increased if associated with ovarian cancer.

**Referral for Family History Risk Assessment and Genetic Counselling**

**Asymptomatic** women who meet the above criteria can be offered referral to the regional Genetic Cancer Service for risk assessment, plus or minus genetic counselling, advice and possible screening. Dependent on risk, the genetic clinic will refer to a breast clinic for screening, if required.
5  GYNAECOLOGICAL CANCERS

5.1  Key Points

Ovarian Cancer

- Uncommon below 40 years (7%)
- Symptoms – often vague/non-specific abdominal symptoms
- 90% have a palpable pelvic mass
- Usually diagnosed late

Endometrial Cancer

- Most patients (95%) present with postmenopausal bleeding
- Uncommon in premenopausal women (< 5%)

Cervical Cancer

- Affects all adult age groups, with almost 50% of cases occurring between the ages of 30 and 50 years.
- Screening programme aims to identify precursor lesions
- Typical symptoms are postmenopausal, postcoital and persistent intermenstrual bleeding
- Usually (80%) diagnosed on speculum examination
- Up to 40% are screen detected
- Any clinical suspicion is an indication for referral and not for a cervical smear

Vulval Cancer

- Most cases occur in women over 65 years
- Patients usually present with bleeding, discomfort, itch or a burning sensation
- 90% have a visible tumour on clinical examination
5.2 *Gynaecological Cancers: Guidelines for Urgent Referral*

**Urgent Referral**

- Lesion suspicious of cancer on cervix or vagina on speculum examination.
- Lesion suspicious of cancer on clinical examination of the vulva.
- Palpable pelvic mass not obviously fibroids.
- Suspicious pelvic mass on pelvic ultrasound.
- More than one or a single heavy episode of postmenopausal bleeding (PMB) in women aged > 55 years who are not on HRT.
- Postcoital bleeding (PCB) age > 35 years that persists for more than 4 weeks.
- Unexpected or prolonged bleeding persisting for more than 4 weeks after stopping HRT.

**Conditions requiring early referral**

Indications for ‘early’ referral but not ‘urgent’ referral.

- Any other women with postmenopausal bleeding not on HRT.
- Repeated unexplained postcoital bleeding.

**Key Points**

- In women over 45 years with persistent abdominal pain or distension, ovarian cancer should be considered and a pelvic examination (ultrasound scan) performed.
- Local networks will wish to ensure that referral pathways are clearly identified and publicised to ensure that patients meeting any of these criteria are investigated rapidly and effectively.
- Family history: This should be obtained and might be relevant but review by a Regional Clinical Genetics Service is recommended for accurate risk assessment if this is the principal indication for referral for investigation.
- Women with abnormal vaginal bleeding should have a speculum examination at presentation to identify local causes of bleeding. A woman presenting with this symptom who has negative cytology has a greatly reduced risk of cervical cancer but the risk is not entirely eliminated.

A National Gynaecology Patient Pathway has been developed as part of the Centre for Change and Innovation Patient Pathway programme and can be accessed at [http://www.pathways.scot.nhs.uk/gynaecology.htm](http://www.pathways.scot.nhs.uk/gynaecology.htm)
6 UROLOGICAL CANCERS

6.1 Key Points

Prostate Cancer
- Commonest cancer in males in Scotland
- Approximately 99% of cases occur in men aged > 50 years
- About 40% of cases present in men aged < 70 years when life expectancy is > 10 years and early diagnosis is important in the prognosis of the disease.
- Presenting features include raised prostate specific antigen (PSA), an abnormal rectal examination and bone pain.
- Lower urinary tract symptoms are common in the normal population of this age and are not a reason for suspecting prostate cancer.
- Early, potentially curable, prostatic cancers are either impalpable or have only a small nodule and a PSA that is generally less than 10ng/ml. Curative treatment usually involves either total (radical) prostatectomy or some form of radiotherapy.
- The age specific upper limit of normal for PSA rises from 2.8 aged 50 up to 5.3 aged 70.
- Many early tumours do not require immediate radical treatment, due to good prognosis in excess of the patient’s life expectation, or as a result of patient preference. Locally agreed guidelines should be developed to ensure urgent referral of those for whom radical treatment is appropriate.
- Patients with bony metastatic disease are at risk of serious complications, e.g. spinal cord compression, and may require urgent treatment. Metastatic disease is normally associated with a very high PSA and is unlikely with PSA < 20.
- Patients with a first degree relative with prostate cancer have double the risk of developing prostate cancer and Afro-Carribbeans have an increased risk.
- Screening for prostate cancer using a PSA test is not national policy. It is recommended that a PSA test should only be performed after full counselling and provision of written information.

Bladder/Urothelial Cancers
- 95% affect the bladder; 5% affect the upper tracts.
- 90% present with macroscopic or frank haematuria, i.e. blood visible to the naked eye.
- 5-10% present with microscopic haematuria. Bladder cancer, especially carcinoma in situ, may present with irritative lower urinary tract symptoms associated with microscopic haematuria.
- Both macroscopic and microscopic haematuria, when caused by urothelial cancer, can be intermittent. Repeat urine testing can be negative for haematuria in the presence of a tumour.
- Urothelial cancer is more likely in patients with microscopic haematuria if they are males, over 50 years and smokers.
- Microscopic haematuria in patients under 40 years should be considered for referral to a nephrologist, especially if there is proteinuria, hypertension or renal impairment.
Kidney Cancer

- Macroscopic haematuria is the commonest presenting symptom.
- Other presenting features include loin pain, renal masses, microscopic haematuria, anaemia, weight loss and pyrexia.
- Renal cancers are increasingly found incidentally on abdominal imaging (e.g. CT or ultrasound).

Testis Cancer

- Scrotal swellings are relatively common in general practice.
- Solid swellings affecting the body of the testis have a high probability (> 50%) of being due to cancer. Indeterminate swellings of the testicle have a low probability of being due to cancer especially in men over 55 years and should be considered for ultrasound before urological referral.
- Swellings outside the body of the testis are hardly ever due to cancer and need not be referred urgently.

Penile Cancer

- Virtually confined to uncircumcised men
- Typical symptoms suspicious of penile cancer are discharge and/or bleeding from under foreskin, a palpable lump under an irreducible foreskin (but confusion may be caused by inspissated smegma), ulceration, warty growths or inflamed areas on glans or under surface of foreskin.
6.2  Urological Cancers: Guidelines for Urgent Referral

Urgent Referral (see flow charts)

- Frank or macroscopic haematuria in adults
- Microscopic haematuria with persistent irritative lower urinary tract symptoms
- Swellings in the body of the testis.
- Palpable renal masses.
- Solid renal masses found on imaging
- A high PSA (> 20ng/ml) in men with a clinically malignant prostate and/or bone pain.
- Elevated age-specific PSA <20 in a man for whom radical treatment would be appropriate, according to local guidelines
- Any suspected penile cancer

Non-urgent referrals

- Elevated age specific PSA in a man for whom radical or urgent treatment is not indicated.
- Microscopic haematuria, on three separate occasions, in adults over 40 years without any other obvious cause (e.g. UTI, known renal or urological disease such as calculi)

A National Prostate Specific Antigen (PSA) - Patient Pathway has been developed as part of the Centre for Change and Innovation Patient Pathway programme and can be accessed at http://www.pathways.scot.nhs.uk/Urology/Urology%20PSA%2023Sep05.htm
Haematuria (Adults) – Protocol for urgent referral

Introduction
Frank, visible haematuria is a common presentation of urological malignancy while occult (dipstick) haematuria is a common finding and much less likely to be associated with malignancy.

Frank haematuria

- All men and women > 35
  - MSSU negative
    - URGENT urology referral, as per local protocol, for investigation
  - MSSU positive
    - GP treat and refer if haematuria recurs

Occult haematuria

- Patient > 35 years and asymptomatic
  - Non-urgent referral as per local protocol
- Patient with persistent irritative bladder symptoms
  - MSSU positive
  - URGENT urology referral, as per local protocol
- Women < 35 years
  - MSSU negative
    - GP treat and refer if haematuria recurs
PSA is not a specific test for prostate cancer and levels can be raised in a variety of conditions. The range of normal PSA increases with age (age related range (ARR)) from <2.8 at age 50 to <5.3 at age 70 years. Locally agreed guidelines should be developed to ensure urgent referral of those for whom radical treatment is appropriate, taking into account life expectancy and co-morbidity.
7 HAEMATOLOGICAL MALIGNANCIES

7.1 Key Points

Leukaemias: Acute and Chronic

- 70% occur in patients aged over 60 years, but all ages can be affected.
- Risk factors include previous chemotherapy/radiotherapy and exposure to radiation.
- Most cases are diagnosed following a blood count undertaken because of symptoms and/or signs of bone marrow failure (fatigue, pallor, bruising, bleeding, infections, etc).
- Some leukaemias may present with lymphadenopathy and/or hepatosplenomegaly.
- Chronic lymphocytic leukaemia (CLL) is an indolent disease normally diagnosed on blood film. Cases should be discussed on an individual basis with the local haematologist to decide degree of urgency of referral.

Non Hodgkin’s Lymphoma

- 70% of cases occur in patients aged over 60 years, but all ages can be affected.
- Presenting features include:
  - Lymphadenopathy
  - Hepatosplenomegaly
  - Fatigue
  - Weight loss
  - Night sweats
- 40% present with tumour outside lymph glands.

Hodgkin’s Disease

- 50% of cases occur below the age of 40 years.
- Clinical features similar to those for Non-Hodgkin’s lymphomas (but 95% present with lymph gland involvement).
Myeloma

- 99% of cases are aged over 40 years and 95% are aged over 50 years.
- Clinical features include:
  - Bone pain +/- bone fractures
  - Symptoms of anaemia
  - Renal impairment
  - Symptoms of hypercalcaemia (eg polyuria, polydipsia)

- Erythrocyte sedimentation rate (ESR) may be grossly elevated.
7.2 **Haematological Malignancies: Guidelines for Urgent Referral**

- Blood count/film reported as suggestive of acute leukaemia or chronic myeloid leukaemia*.
- Lymphadenopathy (> 1 cm) persisting for 6 weeks.
- Hepatosplenomegaly in the absence of known liver disease
- Bone pain associated with anaemia and a raised ESR.
- Bone x-rays reported as being suggestive of myeloma.
- Constellation of 3 or more of the following symptoms:
  - Fatigue,
  - night sweats
  - weight loss
  - itching
  - breathlessness
  - bruising
  - recurrent infections
  - bone pain
  - polyuria and polydipsia

* will normally be picked up in the laboratory and communicated immediately to GP for management to be agreed

**Key Points**

- Patients with paraprotein identified after blood film reported as showing changes such as marked rouleaux, anaemia and possibly leukopenia or thrombocytopenia. The reporting haematologist might suggest myeloma as a possible cause of the changes. These patients need assessment to see if they have myeloma, an underlying lymphoma or are in the group of monoclonal gammopathy of uncertain significance (MGUS). The latter can be monitored in Primary Care but only after assessment to exclude the other conditions.
- Chronic lymphocytic leukaemia in an older patient, identified on a blood count done for other reasons and with apparently preserved bone marrow function. Again most of the monitoring of these patients could be in primary care after an initial hospital assessment to make a plan.
8  SKIN CANCERS

8.1  Key Points

Melanoma

- **Age**: Affects all adult age groups
- **Risk factors**:
  - excessive U.V. exposure
  - fair skin, poor ability to tan
  - large number of benign melanocytic naevi
  - family history
- **Commonest locations**:
  - women: 50% on lower leg
  - men: 33% on back
- **Biopsy**: It is recommended that GPs refer urgently all patients in whom melanoma is a strong possibility, rather than carry out a biopsy in primary care. In cases where melanoma is unlikely but a pigmented lesion is to be excised in general practice, an excision biopsy should be performed with a surrounding cuff of 2mm of normal skin. All such specimens should be submitted for pathological examination.

Squamous Cell Carcinoma

- **Age**: Rare in patients aged < 60 years unless immunosuppressed
- **Risk factors**:
  - lifetime excessive sun exposure
  - multiple small actinic keratoses
  - fair skin
  - poor tanning ability
  - transplant recipients/other immune suppressed patients
- **Commonest locations**:
  - Both sexes: face and back of hands
  - Men: scalp and ears
  - Women: lower legs
- SCC tend to be larger (often > 1 cm) compared to actinic keratoses and have a palpable component deep to the skin surface. The surface may ooze, bleed or be crusted.
- Lesions which grow rapidly, arising in apparently normal skin, particularly on the ear, columella and lip over a period of weeks should arouse suspicion and be referred urgently.
**Basal Cell Carcinoma**

- **Age** – mainly patients over 50
- **Risk Factors**
  - lifetime excess sun
  - fair skin, poor tanning
  - transplant recipients/other immune suppressed patients
  - previous radiation to same site
- **Commonest location**
  - 70% on head and neck
  - trunk especially back
  - may arise in old burns, ulcers, sinuses
- **Appearance** – commonest type is slow growing (over period of 12 – 18 months), pearly nodule which may break down on surface to give classic “rodent ulcer”. Non-facial lesions are often non-specific scaly lesion with slow growth.
- **Due to their slow growth and very low metastatic potential, patients with BCCs should see a specialist on a non-urgent but early basis assuming this means a few months at most. Early treatment will mean less surgical morbidity.**

NB. It can be difficult to distinguish clinically between BCC and SCC in some cases.
8.2  Skin Cancers: Guidelines for Urgent Referral

1  Melanoma

New or existing lesions, usually but not always pigmented on any part of the body with one or more features

- history of change in area, elevation or pigmentation
- history of unexplained itching, bleeding, oozing or altered sensation

OR

Incidental lesion noted to be asymmetrical, irregularly outlined, variable in pigment or ulcerated.

NB. Melanomas are usually 5mm or greater at the time of diagnosis, but a small number of patients with very early melanoma may have lesions of a smaller diameter than this.

2  Squamous Cell Carcinoma

- Lesions which grow rapidly, arising in apparently normal skin, particularly on the ear, columella and lip over a period of a few weeks are potentially sinister and should be referred urgently

- Slowly growing (few months) warty or poorly healing lesions with oozing base and significant induration on palpation. Most common on face, scalp, back of hand. Tend to look different from adjacent skin.

- Patients in whom invasive squamous cell carcinoma has been diagnosed from a biopsy undertaken in general practice.

- Patients who are therapeutically immuno-suppressed after an organ transplant have a high incidence of skin cancers especially squamous cell carcinoma. In transplant patients these tumours can be unusually aggressive and more prone to metastasize. It is strongly recommended that transplant patients are aware of this risk and are urgently referred with any suspicious lesion.

3  Basal Cell Carcinoma

- Lesions with an exceedingly long history (in excess of 10 years) or large size or recurrent basal cell carcinoma invading potentially dangerous areas such as the auditory meatus, eye or base of nose or any major vessel.
9 HEAD AND NECK CANCER

9.1 Key Points

The incidence of head and neck cancer is increasing and this is particularly noticeable for oral cancer where the age standardised rates have increased by 35% in males, and 44% in females over a 10 year period. The pattern of oral cancer has also changed with the reduction in the incidence of lip cancer but a corresponding increase in tongue cancer in men, and floor of mouth in women. The increase in incidence of oral cancer is not solely related to the increased age of the population but shows a fourfold increased incidence in younger age groups.

Risk Factors for Head + Neck Cancer (excluding thyroid)

- Smoking (~90%)
- Alcohol
- Poor Diet
- Social deprivation
- Tobacco chewing habits (including Betel, Gutkha, Pan)
- Older Age

Common Symptoms and signs

Cervical lymphadenopathy is a frequent mode of presentation of Head and Neck cancers. Unlike malignancy described elsewhere (such as Lung Carcinoma) this does not preclude the possibility of cure as it represents loco-regional disease in this group of patients and should therefore be referred to the local Head and Neck service urgently for further investigation.

<table>
<thead>
<tr>
<th>Location</th>
<th>Symptoms</th>
<th>Incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Larynx</td>
<td>Hoarseness</td>
<td>80-90%</td>
</tr>
<tr>
<td></td>
<td>Pain on swallowing</td>
<td>30-40%</td>
</tr>
<tr>
<td></td>
<td>Dysphagia</td>
<td>30%</td>
</tr>
<tr>
<td>Nasopharynx</td>
<td>Lump in the neck</td>
<td>80-90%</td>
</tr>
<tr>
<td></td>
<td>Nasal obstruction</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Deafness</td>
<td>50%</td>
</tr>
<tr>
<td></td>
<td>Post Nasal Discharge</td>
<td>40-50%</td>
</tr>
<tr>
<td>Oral Cavity</td>
<td>Ulceration/Visible Lesion</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>Pain</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Lump in the neck</td>
<td>20-40%</td>
</tr>
<tr>
<td>Oropharynx</td>
<td>Persistent sore throat</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td>Lump in the neck</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>Otalga</td>
<td>80%</td>
</tr>
<tr>
<td>Hypopharynx</td>
<td>Dysphagia</td>
<td>80%</td>
</tr>
<tr>
<td></td>
<td>Otalga</td>
<td>60-70%</td>
</tr>
<tr>
<td></td>
<td>Hoarseness</td>
<td>50%</td>
</tr>
<tr>
<td>Tissue</td>
<td>Symptom</td>
<td>Percentage</td>
</tr>
<tr>
<td>-------------</td>
<td>----------------------------------------------</td>
<td>------------</td>
</tr>
<tr>
<td>Nasal Cavity</td>
<td>Obstruction/congestion</td>
<td>80-90%</td>
</tr>
<tr>
<td></td>
<td>Bleeding</td>
<td>70-80%</td>
</tr>
<tr>
<td>Thyroid</td>
<td>Thyroid lump</td>
<td>60%</td>
</tr>
<tr>
<td></td>
<td>Discomfort in lower neck</td>
<td>80%</td>
</tr>
<tr>
<td>Salivary</td>
<td>Lump in parotid or sub-mandibular gland</td>
<td>90%</td>
</tr>
<tr>
<td></td>
<td>Pain</td>
<td>10-20%</td>
</tr>
<tr>
<td></td>
<td>Lump in Neck</td>
<td>10-20%</td>
</tr>
</tbody>
</table>
9.2 **Head & Neck Cancer: Guidelines for Urgent Referral**

The level of suspicion should be increased if the patient is a heavy smoker and/or heavy alcohol drinker and is aged over 45 years and male. Other forms of tobacco use should also arouse suspicion.

- Stridor – although not a common symptom of laryngeal or thyroid cancer this **REQUIRES SAME DAY REFERRAL**
- Hoarseness persisting for > 3 weeks
- Mass in head or neck unresolved for > 3 weeks
- Discomfort in the throat persisting for > 3 weeks especially in a smoker or drinker
- Dysphagia
- All red or red and white patches of the oral mucosa which persist for more than 3 weeks at any particular site.
- Ulceration of oral mucosa or oropharynx persisting for > 3 weeks.
- Oral swellings persisting for > 3 weeks.
- Unexplained tooth mobility not associated with periodontal disease.

**Thyroid cancer**

- Solitary nodule increasing in size.
- Thyroid swelling in a pre-pubertal patient
- Thyroid swelling in association with the following risk factors:
  - neck irradiation
  - family history of Endocrine tumour
  - unexplained hoarseness
  - cervical lymphadenopathy
  - age of or over 65

Primary care initiation of ultrasonography or isotope scanning is not recommended.

Patients with hyper- or hypo-thyroidism and an associated goitre should be referred non-urgently to an endocrinologist.
10 BRAIN TUMOURS

10.1 Key Points

Patients with brain tumours typically present with one of the following:

- Progressive neurological deficit (e.g. progressive weakness, sensory loss, dysphasia, ataxia) developing over days to weeks.
- Seizure disorder.
- Headache frequently associated with evidence of raised intracranial pressure (vomiting, papilloedema etc.)
- Cognitive/personality (mental state) or behavioural changes.

Prevalence among patients presenting with brain tumours:

- Headaches 50-70%
- Focal neurological deficit 30-50%
- Seizures 25-40%
- Mental changes 15-30%

The probability of having a brain tumour in the following situations is as follows:

- New onset seizure disorder (any type) in adults 2-6%
- New onset status epilepticus ≥10 %
- Chronic daily headache < 1%
  (without features of raised intracranial pressure)
10.2 Brain Tumours: Guidelines for Urgent Referral

Neurological Deficit

- Subacute progressive neurological deficit (including personality or behavioural change) in the absence of previously diagnosed or suspected alternative disorders (e.g. multiple sclerosis)

Seizure

- New onset seizures characterised by one or more of the following:
  - Focal seizures
  - Significant post-ictal focal deficit (excluding confusion)
  - Epilepsy presenting as status epilepticus
  - Associated inter-ictal focal deficit
  - Associated preceding persistent headache of recent onset
  - Seizure frequency accelerating over weeks or months

Headache

- Patients with headache, vomiting and papilloedema.

Consider urgent referral for:

- Patients with non-migrainous headaches of recent onset, when accompanied by features suggestive of raised intracranial pressure (e.g. woken by headache; vomiting; drowsiness), progressive neurological deficit or new seizure disorder.

NB. This last guideline is intended to provide the primary care physician with the discretion to decline urgent referral if there are other known features (e.g. depression, somatisation disorder) making a diagnosis of brain tumour very unlikely.
11 SARCOMAS

Soft Tissue Sarcoma

Early diagnosis is important and could be improved as these tumours are frequently missed or only referred after repeat presentations to the General Practitioner.

- Can occur at any age – more common over 30 years.
- Most soft tissue masses are benign (only 1 in 200 is malignant).
- Features of a soft tissue mass which are suggestive of malignancy include:
  - Size > 5 cms (important: likelihood of malignancy rises with size of mass)
  - Pain
  - Increasing in size
  - Deep seated masses, regardless of size
  - Recurrence after previous excision

Lumps which are superficial and painless and less than 5 cms and static in size are extremely unlikely to be malignant.

Primary bone cancer

Includes: Osteosarcoma, Ewing’s Sarcoma and Chondrosarcoma

Osteosarcoma

Presents with persistent localised bone pain. Most common sites are femur (50%), tibia (26%), humerus (10%). Osteosarcoma can occur at any age although approximately 60% present in the second decade of life.

Ewing’s Sarcoma

Peak incidence is between 10 – 15 years. Rarely occurring under the age of 5, or over the age of 30. Predominant symptoms are persistent pain and swelling of the affected area. Most commonly affected sites are pelvis (20%), femur (19%), tibia (10%), fibula (11%), Rib (10%) and humerus (7.5%).

Chondrosarcoma

Rare under 20 years, 50% occur over the age of 40 years. The most common sites are pelvis (31%), femur (21%) and shoulder girdle (13%). Clinical presentation with bony mass with pain often as a late feature.
11.2 **Sarcoma: Guidelines for Urgent Referral**

- A soft tissue mass with one or more of the following characteristics:
  
  - Size > 5 cms
  - Painful
  - Increasing in size
  - Deep to fascia, fixed or immobile
  - Recurrence after previous excision

Soft Tissue Sarcoma referral algorithm

```
Is the mass deep-seated?

YES

REFER TO SPECIALIST

NO

Is mass > 5 cm?

YES

REFER TO SPECIALIST

NO

Is there other evidence of malignancy?
(e.g. rapid growth firm consistency)

YES

REFER TO SPECIALIST

NO

Ask patient to return if mass increases in size or other symptoms develop
```
Bone Cancer : Guidelines for Urgent Referral

- Patients with unexplained bone pain of increasing severity or persistent bone pain or tenderness and those with non-mechanical bone pain particularly disturbing rest or sleep should be considered to have bone cancer until proven otherwise. They should be immediately referred for an x-ray. If features are indicative of possible cancer then urgent referral to the local specialist team or bone cancer centre must be made.

- If symptoms persist but x-ray is normal, follow-up and request repeat x-rays. Should concern still persist discuss with local specialist service.

- Patients presenting with a suspected spontaneous fracture or one occurring with minor trauma should be considered to have an underlying bone cancer and should be referred urgently for x-ray and further investigation.

Radiological suspicion of a primary bone cancer is based on evidence of bone destruction, new bone formation, soft tissue swelling and periosteal elevation. In older patients metastases, myeloma and lymphoma are further causes of bone pain and radiological abnormality.
12 CHILDREN’S TUMOURS

12.1 Key Points

Incidence
- Approximately 125 children aged < 15 years in Scotland are diagnosed with cancer each year, giving a rate of 14 per 100,000 children < 15 years (based on Scottish Childhood population 877,685 in 2003)

- 1 in 600 children will be affected by the age of 15 years – which is similar to the rate for Down’s syndrome, diabetes or meningitis in childhood.

- The estimated number of new cases diagnosed each year by individual tumour type is shown in Table 12.1. Acute leukaemia accounts for approx. 1/3 of all childhood cancers and brain/CNS tumours account for almost one fifth.

<table>
<thead>
<tr>
<th>Childhood Cancers, Scotland, Children&lt;15 diagnosed 1994-2003</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Childhood Cancer</strong></td>
</tr>
<tr>
<td>Acute Leukaemia</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Brain tumours</td>
</tr>
<tr>
<td>Lymphoma</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td>Neuroblastoma</td>
</tr>
<tr>
<td>Soft tissue sarcoma</td>
</tr>
<tr>
<td>Wilms' tumour (nephroblastoma)</td>
</tr>
<tr>
<td>Bone sarcoma</td>
</tr>
<tr>
<td>Germ cell tumours</td>
</tr>
<tr>
<td>Retinoblastoma</td>
</tr>
<tr>
<td>Hepatoblastoma</td>
</tr>
</tbody>
</table>

1 Acute lymphoblastic leukaemia
2 Acute myeloid leukaemia

Source: Scottish Cancer Registry, ISD September 2006
**Risk Factors**

In most cases no risk factor can be identified. However, genetic susceptibility is apparent in some cases, and associated conditions (see Table 12.2) or a family history in first degree relatives may be important.

**Table 12.2**

<table>
<thead>
<tr>
<th>Childhood Tumour</th>
<th>Association</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Leukaemia</strong></td>
<td>Down’s syndrome</td>
</tr>
<tr>
<td><strong>CNS Tumours</strong></td>
<td>Neurofibromatosis Type 1 and 2, Tuberous sclerosis, von Hippel-Lindau</td>
</tr>
<tr>
<td><strong>Wilms’</strong></td>
<td>Aniridia, hemihypertrophy; Beckwith-Wiedemann Sydrome</td>
</tr>
<tr>
<td><strong>Soft tissue sarcoma</strong></td>
<td>Li Fraumeni syndrome (e.g. relatives with premenopausal breast cancer)</td>
</tr>
<tr>
<td><strong>Hepatoblastoma</strong></td>
<td>Familial adenomatous polyposis coli</td>
</tr>
<tr>
<td><strong>Retinoblastoma</strong></td>
<td>May be familial/heritable (mainly bilateral tumours)</td>
</tr>
</tbody>
</table>

**Notes on Individual Childhood Cancers**

1 **Leukaemia**

Children usually present with a relatively short history (weeks rather than months) with combination of pallor, fatigue, irritability, fever, bone pain and bruising/petechiae. 70% have hepatosplenomegaly >50% have lymphadenopathy.

Differential diagnosis includes infectious mononucleosis and other rare conditions e.g. idiopathic thrombocytopenia, aplastic anaemia, metastatic neuroblastoma, juvenile chronic arthritis.

A full blood count most helpful, decreased platelets often the first suggestion of marrow infiltration.

2 **Brain Tumours**

**Common presenting features:**

- Headache 65-70% early morning worse at night
- Vomiting 65-70%
- Changes in personality/mood 45-50%
- Squint
- Behaviour out of character 20-25%
- Deterioration in school performance
- Growth failure 20%
- (Rapidly increasing head circumference in infants)
- approx 50% present with symptoms of raised Intracranial Pressure
- Headache
- Vomiting
- Ataxia
3 Lymphomas

- **Hodgkin’s disease:** Usually presents with non-tender cervical / supraclavicular lymphadenopathy. Natural history is long (months). Only a minority have systemic symptoms.

- **Non-Hodgkin’s lymphoma:** Generalised lymphadenopathy and/or disease in mediastinum (T cell) sometimes associated with SVC obstruction and/or stridor or abdominal mass. Rapid progression of symptoms.

4 Neuroblastoma

- Majority have symptoms, present unwell with abdominal distension +/- palpable mass and symptoms of bone marrow failure (cf leukaemia).

- Infants under one year may have localised abdominal or thoracic masses; very young infants (age < 6 months) may have massive hepatomegaly.

5 Wilms’ tumour (nephroblastoma)

- Unilateral abdominal mass ± pain in a well child

- Haematuria

6 Soft tissue sarcoma

- Mass at almost any site
e.g. head and neck (proptosis, nasal obstruction)genitourinary tract (urinary obstruction, bloodstained vaginal discharge)limbs, trunk (most often asymptomatic mass).

7 Bone tumours

**Osteosarcoma**

Presents with persistent localised bone pain. Most common sites are femur (50%), tibia (26%), humerus (10%). Osteosarcoma can occur at any age although approximately 60% present in the second decade of life. A normal x-ray of long bones excludes bone sarcoma but further investigation may be required to exclude sarcoma of spine, pelvis, ribs or scapula.

**Ewing’s Sarcoma**

Peak incidence is between 10 – 15 years. Rarely occurring under the age of 5, or over the age of 30. Predominant symptoms are persistent pain and swelling of the affected area. Most commonly affected sites are pelvis (20%), femur (19%), tibia (10%), fibula (11%), Rib (10%) and humerus (75). A normal x-ray of long bones excludes bone sarcoma but further investigation may be required to exclude sarcoma of spine, pelvis, ribs or scapula.
8 Retinoblastoma

- Family history (in approximately 15% cases)
- White pupillary reflex
- Squint

9 Gonadal Tumours

- Testicular/paratesticular masses can be difficult to differentiate – any non-transilluminable mass associated with the testis is significant.

- Ovarian tumours can be associated with precocious puberty.
12.2 Children’s Tumours: Guidelines for Urgent Referral

Abnormal blood count
if reported as requiring urgent further investigation.

Petechiae/Purpura
these findings are always an indication for urgent investigation.

Fatigue in a previously healthy child when combined with either of the following:
- generalised lymphadenopathy
- hepatosplenomegaly

Bone Pain especially if it is:
- diffuse or involves the back
- persistently localised at any site
- requiring analgesia
- limiting activity

Lymphadenopathy is more frequently benign in younger children but referral is advised if one or more of the following characteristics are present, particularly if there is no evidence of previous local infection:
- non tender, firm/hard and > 3 cms in maximum diameter
- progressively enlarging
- associated with other signs of general ill health, fever and/or weight loss
- involves axillary nodes (in the absence of any local infection or dermatitis) or supraclavicular nodes
- seen as a mediastinal or hilar mass on chest x-ray

Headache with one or more of the following features:
- increasing in severity or frequency
- noted to be worse in the mornings or causing early wakening
- associated with vomiting often intermittent
- associated with neurological signs (e.g. squint, ataxia)
- Associated with behavioural change or deterioration in school performance.

Soft Tissue Mass any mass which occurs in an unusual location should be considered suspicious particularly if associated with one or more of the following characteristics:
- shows rapid or progressive growth
- size > 3 cms in maximum diameter
- fixed or deep to fascia
- associated with regional lymph node enlargement
MALIGNANT SPINAL CORD COMPRESSION

Malignant cord compression (MCC) and epidural disease is probably more common than previously reported. It is usually diagnosed late, by which time 4 out of 5 patients are unable to walk, and treatment is by then ineffective. It is associated with severe spinal nerve root and/or back pain, and most patients report their first symptoms to a GP.

Key points

- lung prostate & breast cancer account for approx. 60% of cases
- breast & prostate cancer patients with known bone metastases are especially at risk
- lung cancer patients are at risk whether or not they are known to have bone metastases
- MCC is the presenting feature of malignancy for some cancers
- most patients (90%) are over 50 years
- nearly all patients have pain – usually severe spinal nerve root pain (80%) with or without local back pain
- site of pain and site of compression do not correlate, so x-rays and bone scans may be misleading
- a normal neurological examination does not preclude epidural disease or evolving MCC
- Magnetic Resonance Imaging (MRI) is the definitive method of investigation

Guidelines for referral for patients with known cancer (particularly prostate, breast and lung)

1. Emergency referral - admit same day

   - myelopathy - weakness±sensory loss±urinary problems

2. Urgent referral

   - new nerve root pain - e.g. anterior thigh, around chest, posterior thigh “like sciatica”
   - new severe and progressive back pain - especially thoracic

Local networks will need to ensure that referral pathways are in place, and are clearly identified and publicised in order to ensure patients with the above symptoms are investigated rapidly and effectively.
**Actinic Keratosis**  
*A warty lesion occurring on the sun-exposed skin of the face or hands in older people*

**Adenomatous polyp**  
*Benign wart-like growth*

**Aniridia**  
*Absence of the iris of the eye*

**Ataxia**  
*An inability to co-ordinate muscle activity; unsteadiness*

**Chemotherapy**  
*Treatment of cancer with drugs*

**Clubbing**  
*A condition affecting the fingers and toes resulting in thickening and widening of the extremities with abnormally curved nails*

**Columella**  
*Lower part of nasal septum*

**Dyspepsia**  
*Indigestion*

**Dysphagia**  
*Difficulty in swallowing*

**Dysphasia**  
*Difficulty in speaking*

**Dyspnoea**  
*Difficulty in breathing; shortness of breath*

**Facial palsy**  
*Paresis of the facial nerve*

**Fibroid**  
*Benign tumour made up of fibrous tissue*

**First-degree relatives**  
*Parents, siblings, children*
Haematuria
   Urine containing blood or red blood cells
   (Macroscopic = visible to the naked eye; Microscopic = invisible to the naked eye)

Haemoptysis
   Spitting or coughing up blood from the lungs

Hemihypertrophy
   Increase in size of one half of the face or body

Hemiparesis
   Weakness affecting one side of the body

Hepatomegaly
   Enlargement of the liver

Hepatosplenomegaly
   Enlargement of the liver and spleen

Hypercalcaemia
   Excess calcium in the blood

Hypertension
   Abnormally high blood pressure

Induration
   Thickened area

Inner canthus
   Inner angle between upper and lower eyelid

Lymphadenopathy
   Any disease process affecting a lymph node or lymph nodes, usually resulting in enlargement

Melanocytic
   Pigmented

Periodontal
   Of the supporting structures of the teeth, including gums and alveolar bone

Metastasis
   Secondary growth of cancer at a site distant from the site of origin

Naevi
   Moles

Nephrology
   Study of the kidneys, their function and diseases
Oral mucosa
   Membrane rich in mucosal glands lining the mouth

Oropharynx
   Part of the pharynx between the soft palate and the epiglottis

Orbit
   The bony cavity containing the eye

Otalgia
   Earache

Papilloedema
   Swelling of the optic disc (at the back of the eye)

Periosteal
   Relating to the fibrous membrane covering the surface of a bone

Pleural effusion
   Accumulation of fluid around the lungs

Polyuria
   Excessive secretion of urine

Polydipsia
   Excessive or abnormal thirst

Postcoital
   Occurring after sexual intercourse

Post-ictal
   Occurring after a fit or seizure

Proteinuria
   Excess protein in the urine

Pyrexia
   Fever

Radiotherapy
   Treatment of cancer with ionizing radiation

Receptive Dysphasia
   Difficulty in understanding language

Serosanguineous
   Containing both blood and serous fluid

SHOW
   Scottish Health on the Web

Stridor
   A high-pitched noisy respiration due to obstruction of the airway
**Superior vena caval obstruction (SVCO)**

*Obstruction of the large vein which returns blood from the head, neck and upper limbs to the heart*

**Supraclavicular lymphadenopathy**

*Enlargement of lymph nodes in the area above the clavicle or collar bone*
Membership of the group undertaking the review of the Scottish Referral Guidelines for Suspected Cancer was drawn primarily from those who participated in the development of the original guidelines circulated in May 2002 and also with input from other colleagues. In recognition that tumour specific and Primary Care regional cancer networks have developed and matured significantly since the first guidelines were developed input from the wider regional cancer networks was also sought.

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