

Referral Guidelines for Suspected Cancer

Contents

	Page
Introduction	1
1 Lung Cancer	13
2 Upper Gastrointestinal Cancers	15
3 Lower Gastrointestinal Cancers	17
4 Breast Cancer	19
5 Gynaecological Cancers	21
6 Urological Cancers	23
7 Haematological Malignancies	25
8 Skin Cancers	27
9 Head and Neck Cancers	29
10 Brain/Central Nervous System Tumours	31
11 Sarcomas	33
12 Children’s Tumours	35
 Appendices	
<i>1 Members of Steering Group</i>	41
<i>2 Members of Tumour Working Parties</i>	43
<i>3 Respondents to Consultation</i>	47
<i>4 Glossary</i>	49

A copy of this document can also be found on the NHSWeb at <http://nww.doh.nhsweb.nhs.uk/cancer> and the Internet at <http://www.doh.gov.uk/cancer>. Copies of sample referral proformas are available for downloading at <http://www.doh.gov.uk/cancer/proforma.htm>.

Introduction

1 Aim of Guidelines

The aim of these 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

The Government White Paper entitled 'The new NHS – Modern, Dependable' guaranteed that everyone with suspected cancer will be able to see a specialist within two weeks of their GP deciding that they need to be seen urgently and requesting an appointment. These arrangements were guaranteed for everyone with suspected breast cancer from April 1999. For other suspected cancers the two week waiting time standard is being implemented as follows:

April 2000:	Lung cancer Children's cancers Leukaemia
July 2000:	Upper gastrointestinal cancers Lower gastrointestinal cancers
October 2000:	Gynaecological cancers Skin cancers Brain/Central Nervous System cancers
December 2000:	All other cancers including – Urological cancers Head and Neck cancers Sarcomas Haematological malignancies (other than leukaemia)

3 Development of Guidelines

These guidelines have been developed under the auspices of a Steering Group established by the Department of Health in May 1999, in association with relevant Royal Colleges. The guidelines for each tumour group were prepared by Working Parties chaired by an expert in the relevant cancer area with input from primary care, public health medicine, nursing, radiology and other disciplines as appropriate.

The working parties were asked to consider what individual factors or combinations of factors could best discriminate between patients who do or do not have cancer. Factors to be considered included:

- Sociodemographic factors (e.g. age, gender)
- Risk factors for the relevant cancer (e.g. smoking, family history, exposure to ultraviolet light)
- Symptoms
- Findings on clinical examination
- Results of investigations undertaken from primary care

Each Working Party considered the symptom profile of patients presenting with the relevant cancer type (i.e. the 'hospital perspective'), the prevalence of these symptoms amongst patients attending General Practitioners (the primary care perspective) and in the population as a whole (the community perspective). Based on these assessments the Working Parties made preliminary recommendations on criteria for urgent referral.

4 The Evidence Base

The Working Parties considered evidence from the published literature and the unpublished audits of symptoms in patients presenting with cancer. However, the evidence in this area, particularly for combinations of symptoms is weaker than in other areas and the recommendations are therefore necessarily based on expert judgment and consensus.

It is planned that the full reports of the Working Parties will be published in due course to show the levels of evidence on which decision were made and to indicate where further research is needed. Information collected following the implementation of the Two Week Policy will inform subsequent revisions to the guidelines (see paragraph 12)

5 Achieving a Balance

Members of the Steering Group and Working Parties 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 incurable disease. In contrast, 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 would be swamped, which would be to the detriment of patients with cancer and to those with other serious illnesses.

6 Primary Care Perspective

Although cancer is a common problem with over 220,000 new cases being diagnosed annually in England and Wales (excluding non-melanomatous skin cancers), an individual GP is likely to see no more than 8 or 9 new cases per annum. The average number of new cases p.a. of individual cancer types for a GP with a list size of 2000 patients is shown in *Table 1*. Even for the commonest of cancers (lung cancer) an individual GP is only likely to see on average about 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 every 20 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 the guidelines.

7 Consultation on the Guidelines

An extensive consultation process on the draft guidelines was undertaken between November 1999 and January 2000. The draft guidelines were circulated to Royal Colleges, NHS Trusts, Health Authorities, Primary Care Groups, Regional Cancer Coordinators, Specialist Societies and Groups, BMA, Voluntary organisations and to individuals who expressed an interest. The draft guidelines were made available on the NHS Web and on the Internet.

Multi-professional meetings were held in 7 of the 8 Health Regions in England. Two focus groups were held to consider the content and implications of the guidelines from a primary care perspective.

A total of over 500 written comments on the draft guidelines have been received (see Appendix 3).

8 Summary of comments received during consultation

Comments on the Two Week Standard

Many respondents expressed concern that introduction of the Two Week Standard would lead to a considerable increase in total referral rates from primary to secondary care, as was observed in some areas following the introduction of the Two Week Standard for breast cancer in April 1999. Concern was expressed about the capacity of hospitals to respond to an overall increase in workload and the potential prolongation of waiting times for cancer patients referred non-urgently, and for those with problems other than cancer.

These concerns highlight the need for an effective dialogue between primary care and secondary care regarding the appropriate referral of patients with suspected cancer. It is hoped that these referral guidelines will form the basis for such a dialogue.

Many respondents were concerned about delays between the time of first assessment at hospital and the time of definitive treatment. Additional funding will be made available to Health Authorities from April 2000 to improve access to cancer care. The cancer services collaborative projects are also testing new approaches to reduce waiting times at each phase of the cancer journey. It is planned that lessons learned from this project will be disseminated throughout the NHS.

Comments on the draft referral guidelines

Broad (though not universal) support was expressed regarding the development of national referral guidelines and for most aspects of the presentation of the draft guidelines. Many useful comments were made about the criteria for urgent referral for individual cancer sites. These were fed back to the Tumour Group Working Parties and revisions have been made in the light of these comments.

Proforma-based referral

Diverse views were expressed regarding the use of proformas for urgent referrals. Many GPs felt that it would be impractical to use twelve separate paper-based proformas (i.e. one for each tumour group). Electronically generated proformas (and direct electronic links between primary and secondary care) would be welcomed by many GPs. Many respondents indicated the need for free text comments (and/or an accompanying letter) as well as a 'tick box' approach to referral. Space needed to be given to provide information on the patient's previous medical history, family history, medication, social circumstances, level of anxiety and on information given to the patient. Referral proformas also needed to be customised for local circumstances (e.g. including relevant fax/telephone numbers).

In the light of these comments the proformas have not been included in the revised guidelines. Instead, model proformas are being made available on the NHSWeb and the Internet and will be made available electronically to cancer networks and Trusts, with the intention that these can be customised for local use in discussion with local PCGs/PCTs.

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 result in medico-legal complications.

Summary Information

The concept of a wallchart providing a summary of the guidelines for urgent referral was widely welcomed. Other formats (e.g. a single A4 sheet of information or a 'filofax' version of the guidelines) were also suggested.

Dissemination of the guidelines

The need for the guidelines to be widely disseminated was highlighted by many respondents including nurses, dentists, pharmacists, community health councils and voluntary organisations.

Table 1
Incidence of Selected Cancers (Adults aged 15+ years, England and Wales 1992)

Cancer		Total New Cases p.a.	No p.a. per 2000 population
Lung		37,307	1.46
Upper GI	<i>Oesophagus</i>	5,736	0.22
	<i>Stomach</i>	10,227	0.40
	<i>Pancreas</i>	6,238	0.24
Lower GI	<i>Colon</i>	18,545	0.72
	<i>Rectum</i>	11,118	0.43
Breast		31,843	1.24
Gynaecological	<i>Ovary</i>	5,384	0.21
	<i>Uterus</i>	3,912	0.15
	<i>Cervix</i>	3,400	0.13
Urological	<i>Bladder</i>	12,008	0.47
	<i>Prostate</i>	15,705	0.61
	<i>Kidney</i>	4,404	0.17
	<i>Testis</i>	1,375	0.05
Haematological	<i>Leukaemia</i>	4,930	0.19
	<i>NHL</i>	6,888	0.27
	<i>Hodgkin's</i>	1,188	0.05
	<i>Myeloma</i>	2,859	0.11
Skin	<i>Melanoma</i>	4,141	0.16
Head + Neck	<i>Mouth, lip, pharynx</i>	3,627	0.14
	<i>Larynx</i>	2,046	0.08
	<i>Thyroid</i>	951	0.04
Brain		3,352	0.13
Sarcoma	<i>Soft tissue</i>	1,236	0.05
	<i>Bone</i>	357	0.014
Other*		21,665	0.85
Total		220,442	8.41

Source: Office for National Statistics
Series MB1 No.25 published 1998

*NB. Most of the 'other' cancers are recorded by ONS as secondary or unspecified malignant neoplasms.

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.

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

9 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* shows that:

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

Lung	Colon	Endometrium
Oesophagus	Rectum	Larynx
Stomach	Prostate	Myeloma
Pancreas	Bladder	

- For the following cancers only 3 – 5% of cases are diagnosed before 40 years:

Breast
Ovary
Kidney
Mouth, lip, pharynx

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

Cervix	Thyroid	Sarcoma
Melanoma	Brain	Non Hodgkin's Lymphoma

- Some cancers are commonest in younger adults (< 40 years). These include:

Testicular cancer
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 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 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.

Table 3
Age at Diagnosis for Adult Cancers

Cancer		Proportions presenting in different age groups					
		<40	40-49	50-59	60-69	70-79	80+
		%	%	%	%	%	%
Lung		<1	3	10	31	37	19
Upper GI	<i>Oesophagus</i>	<1	4	11	25	35	24
	<i>Stomach</i>	1	3	8	24	35	29
	<i>Pancreas</i>	1	3	10	23	35	28
Lower GI	<i>Colon</i>	1	3	10	24	33	28
	<i>Rectum</i>	1	5	12	26	33	23
Breast		5	15	22	24	19	15
Gynaecological	<i>Ovary</i>	5	11	19	27	24	14
	<i>Uterus</i>	1	7	21	30	25	16
	<i>Cervix</i>	28	19	13	16	16	8
Urological	<i>Prostate</i>	<1	<1	4	21	44	31
	<i>Bladder</i>	1	3	9	26	35	25
	<i>Kidney</i>	3	7	15	28	30	16
	<i>Testis</i>	66	20	7	3	2	1
Haematological	<i>Leukaemia</i>	9	6	9	20	30	25
	<i>NHL</i>	8	10	15	23	28	16
	<i>HD</i>	54	15	9	11	9	3
	<i>Myeloma</i>	1	4	11	26	34	24
Skin	<i>Melanoma</i>	18	17	16	19	18	11
Head and Neck	<i>Lip, mouth, pharynx</i>	5	10	18	27	25	14
	<i>Larynx</i>	1	7	17	33	30	11
	<i>Thyroid</i>	22	15	17	16	19	11
Brain		14	14	18	28	20	6
Sarcoma	<i>Soft Tissue</i>	19	14	14	21	19	14
	<i>Bone</i>	34	10	10	16	19	10

Source: Office for National Statistics
1992 Cancer Statistics Registrations
Series MB1 No.25 published 1998

NB: See Section 12 for the pattern of childhood cancers

10 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).

For each tumour group the guidelines are set out as follows:

- (i) Key points about the characteristics of patients with the relevant cancers.
- (ii) Guidelines for urgent referral.

11 Coverage of Cancers within the Guidelines

The 12 tumour groups account for the overwhelming majority of all cancers. Some less common tumours are, however, not specifically covered in these guidelines. These include:

Mesothelioma – for which the referral pathway is likely to be the same as that for lung cancer.

Liver and Gall Bladder cancer – for which the referral pathway is likely to be the same as that for upper gastrointestinal 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.

12 Audit and Review of the Guidelines

Members of the Steering 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 vast amount of new information which should be used to revise the guidelines in the future, in addition to monitoring adherence to the two week standard. It is planned that the guidelines will be reviewed in 2002, when at least one year's experience will be available for all tumour types.

Monitoring of Two Week Standard

- How many patients are referred as 'urgent' cases in each tumour group?
- What proportion of urgent referrals are subsequently found to have cancer?

- What is the impact of introduction of the new policy on total numbers of referrals to OP Clinics?
- How many patients who are not referred as urgent cases are subsequently found to have cancer (either presenting via outpatient clinics or as emergencies)?

Audit of 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?

13 Application of the Guidelines: Estimates of number of urgent referrals

Preliminary estimates of the proportions of patients with suspected cancer who will be found to have cancer if the guidelines for urgent referral are applied in clinical practice have been made by members of the Steering Group. These are expressed as benign to malignant ratios and are shown in *Table 4*.

Based on these ratios estimates can be made of the total number of urgent referrals across the country (approximately 2 million per annum) and to a District General Hospital serving a population of 200,000 (approximately 7,800 per annum).

Table 4 also shows estimates of the numbers of urgent referrals for each tumour type likely to be received each week by a DGH serving a population of 200,000. It is hoped that these figures will assist clinicians and managers within Trusts in their preparations for the implementation of the Two Week Standard.

Table 4

Estimates of the Numbers of Urgent Referrals (Adults)

		Benign: Malignant	New Cancers	E & W Urgent Referrals	DGH * p.a.	DGH* pw
Lung		2:1	40,000	120,000	480	9
Upper GI	Oesophagus/Stomach	15:1	16,000	256,000	1020	20
Lower GI	Colon + Rectum	15:1	30,000	480,000	1900	38
Breast		15:1	30,000	480,000	1900	38
Gynae	PMB. Uterus/cervix Ovary	10:1	7,500	82,000] 370	7
		1:1	5,500	11,000		
Urology	Prostate	2:1	16,000	48,000] 700	14
	Bladder/Kidney	6:1	16,000	112,000		
	Testis	10:1	1,400	15,000		
Haem-Onc	Leukaemia	1:1	5,000	10,000] 440	9
	Lymphoma	10:1	8,000	90,000		
	Myeloma	2:1	3,000	9,000		
Skins	Melanoma/ SCC	24:1	6,000	150,000	600	12
Head+Neck		5/10:1	8,000	60,000	240	5
Brain		5:1	5,000	30,000	120	2-3
TOTAL				2 MILLION	7,800	155

* Based on a DGH serving a population of 200,000

1. Lung Cancer

1.1 Key Points

Incidence: Commonest cancer in England & Wales
- about 37,000 cases p.a.

Age: Only 1% of cases occur before 40 years.
85% of cases occur over 60 years.

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

**Predominant Symptoms:
at presentation:** Cough
Dyspnoea
Haemoptysis
Weight loss
Chest/shoulder pain
Hoarseness

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

Chest x-ray findings are abnormal in the vast majority 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.

In a limited number of circumstances, urgent referral to a Chest Physician is appropriate without requesting a chest x-ray.

Sputum cytology is rarely indicated prior to referral for a specialist opinion.

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.

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
 - finger clubbing
 - features suggestive of metastasis from a lung cancer (e.g. brain, bone, liver or skin)
 - persistent cervical/supraclavicular lymphadenopathy

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).

2. Upper Gastrointestinal Cancers

2.1 Key Points

Incidence	Oesophagus:	Approx 6,000 cases p.a.
	Stomach:	Approx 10,000 cases p.a.
	Pancreas:	Approx 6,000 cases p.a.

The incidence of stomach cancer is decreasing, whereas the incidence of oesophageal cancer is increasing. Tumours at the junction between the stomach and oesophagus are increasing particularly rapidly.

- Age**
- For all three tumour types 99% of cases occur over 40 years.
 - 90% of gastric cancers occur over 55 years.
 - The chance of a dyspeptic patient under the age of 55 having gastric cancer is one in a million.
 - 55 is the cost effective age for investigation of gastric cancer under the Markov model.

Risk Factors: Smoking
Alcohol

Common Symptoms in Cancer Patients

Any Upper G.I Cancer:	Weight Loss	60%
	Anaemia	50%
	Vomiting	25%

Oesophagus:	Heartburn	80%
	Reflux	50%
	Dysphagia	85%

Stomach:	Epigastric Pain	90%
	Dysphagia	40%

Pancreas:	Jaundice	80%
------------------	----------	-----

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

*Referral Guidelines for
Suspected Cancer*

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.

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.

- 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
 - Barrett’s oesophagus
 - Pernicious anaemia
 - Peptic ulcer surgery over 20 years ago
 - Known dysplasia, atrophic gastritis, intestinal metaplasia
- Jaundice
- Upper abdominal mass

* Age 55 years is considered to be the maximum age threshold. Local Cancer Networks may elect to set a lower age threshold (e.g. 50 years or 45 years).

3. Lower Gastrointestinal Cancers

3.1 Key Points

Incidence: About 30,000 cases p.a. in England & Wales

Age: 99% aged > 40 years
85% aged > 60 years

Primary Symptoms

- Rectal bleeding persistently without anal symptoms
- Change in bowel habit – most commonly increased frequency and/or looser stools persistent for at least six weeks.

Secondary effects

- A significant iron deficiency anaemia
- Clear signs of intestinal obstruction

Clinical Examination

- A definite right-sided abdominal mass
- A definite rectal (not pelvic) mass

The criteria for urgent referral set out in the following section (3.2) should identify 90% of patients with bowel cancer.

3.2 Colorectal Cancer: Guidelines for Urgent Referral

It is recommended that these symptom and sign combinations WHEN OCCURRING FOR THE FIRST TIME should be used to identify patients for urgent referral under the two week standard[†].

Age Threshold

- Rectal bleeding WITH a change in bowel habit to looser stools and/or increased frequency of defecation persistent for 6 weeks. *All ages*
- A definite palpable right-sided abdominal mass. *All ages*
- A definite palpable rectal (not pelvic) mass *All ages*
- Rectal bleeding persistently WITHOUT anal symptoms* *Over 60 yrs†*
- Change of bowel habit to looser stools and/or increased frequency of defecation, WITHOUT rectal bleeding and persistent for six weeks. *Over 60 yrs†*
- Iron deficiency anaemia WITHOUT an obvious cause (Hb < 11 g/dl in men or < 10 g/dl in postmenopausal women).

NB. Patients with the following symptoms and no abdominal or rectal mass, are at very low risk of cancer:

- Rectal bleeding with anal symptoms*
- Change in bowel habit to decreased frequency of defecation and harder stools.
- Abdominal pain without clear evidence of intestinal obstruction.

* Anal symptoms include soreness, discomfort, itching, lumps and prolapse as well as pain.

[†] Age 60 years is considered to be the maximum age threshold. Local Cancer Networks may elect to set a lower age threshold (eg 55 years or 50 years)

4. Breast Cancer

4.1 Key Points

Incidence: Approximately 32,000 new cases p.a. in England and Wales. Breast cancer is the commonest malignancy to affect women.

Age: Incidence increases with age. 5% of cases occur before 40 years and only 2% before 35 years.

A GP with a list of 2000 patients can expect to see one new patient with breast cancer per year, but will see a considerably larger number of women with benign breast problems.

- Other breast problems include:

Diffuse nodularity: common in all age groups up to 50 years.

Fibroadenoma: peak age range 20 – 30 years.

Cysts: peak age range 40 – 60 years.

Breast pain/mastalgia: pain alone is a very uncommon presentation of breast cancer.

- Presenting features of symptomatic cases of breast cancer:

Lump	90%
Painful lump	20%
Nipple change	10%
Nipple discharge	3%
Skin contour change	5%

Note: The guidelines for urgent referral of patients with suspected breast cancer in this document are based on those set out in 'Guidelines for Referral of Patients with Breast Problems' second edition 1999 prepared by Joan Austoker and Robert Mansel under the auspices of the NHS Breast Screening Programme and the Cancer Research Campaign.

4.2 **Breast Cancer: Guidelines for Urgent Referral**

Urgent Referrals

- Patients with a discrete lump in the appropriate age group (e.g. age > 30).
- Signs which are highly suggestive of cancer such as:
 - Ulceration
 - Skin nodule
 - Skin distortion
 - Nipple eczema
 - Recent nipple retraction or distortion (< 3 months)

Conditions that require referral – but not necessarily urgently

- | | |
|------------------|---|
| Lump | <ul style="list-style-type: none">● Discrete lump in a younger woman (e.g. age < 30 years)● Asymmetrical nodularity that persists at review after menstruation● Abscess● Persistently refilling or recurrent cyst |
| Pain | <ul style="list-style-type: none">● Intractable pain not responding to reassurance, simple measures such as wearing a well supporting bra and common drugs. |
| Nipple | <ul style="list-style-type: none">● Age < 50 with bilateral discharge sufficient to stain clothes. |
| Discharge | <ul style="list-style-type: none">● Age < 50 with bloodstained discharge● Age > 50 with any nipple discharge |

5. Gynaecological Cancers

5.1 Key Points

Ovarian Cancer

- 5,400 cases p.a. in England & Wales
- Uncommon below 40 years (5%)
- Symptoms – often vague/non specific abdominal symptoms
- 90% have a palpable pelvic mass
- Usually diagnosed late

Endometrial Cancer

- 3,900 cases p.a. in England & Wales
- Most patients (95%) present with postmenopausal bleeding
- Uncommon in premenopausal women (< 5%)

Cervical Cancer

- 3400 cases p.a.
- Incidence similar across all age groups > 30 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

*Referral Guidelines for
Suspected Cancer*

Vulval Cancer

- 1000 cases p.a. in England & Wales
- 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

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.
- HRT: unexpected or prolonged bleeding persisting for more than 4 weeks after stopping HRT.

Early Referral

Indications for 'early' referral (i.e. within 4-6 weeks) but not 'urgent' referral.

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

NB. In women over 45 years with persistent abdominal pain or distension, ovarian cancer should be considered and a pelvic examination performed.

6. Urological Cancers

6.1 Key Points

Incidence: England & Wales

Prostate	16000 cases p.a.	Testis	1400 cases p.a.
Bladder	12000 cases p.a.	Penis	360 cases p.a.
Kidney	4400 cases p.a.		

Prostate Cancer

- 99% of cases occur in men aged > 50 years
- About 25% of cases present in men aged < 70 years when life expectancy is > 10 years.
- 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 15ng/ml.
- The age specific upper limit of normal for PSA rises from 2.8 aged 50 up to 5.3 aged 70.
- Patients with a first degree relative with prostate or breast cancer are at higher risk of developing prostate cancer and Afro-Caribbeans probably have an increased risk.
- PSA testing of asymptomatic men or screening for prostate cancer is not national policy. It is recommended that a PSA test, except in men clinically suspicious of prostate cancer 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 haematuria.
- 5-10% present with microscopic haematuria.

Referral Guidelines for Suspected Cancer

- Both macroscopic and microscopic haematuria, when caused by a urothelial cancer are 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.

6.2 Urological Cancers : Guidelines for Urgent Referral

Referral Guidelines for Suspected Cancer

- Macroscopic haematuria in adults.
- Microscopic haematuria in adults over 50 years.
- Swellings in the body of the testis.
- Palpable renal masses.
- Solid renal masses found on imaging.
- An elevated age specific PSA in men with a ten year life expectancy.
- A high PSA (> 20ng/ml) in men with a clinically malignant prostate or bone pain.
- Any suspected penile cancer.

7. Haematological Malignancies

7.1 Key Points

Leukaemias : Acute and Chronic

- Approx 5000 adult cases p.a. (all types) in England and Wales.
- 75% 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, which does not usually require urgent referral.

Non Hodgkin's Lymphoma

- Approx 7000 adult cases p.a. in England and Wales.
- 67% 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

- Approximately 1200 new cases p.a. in England and Wales.
- Over 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

- Approximately 3000 new cases p.a. in England and Wales.
- 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
- Erythrocyte sedimentation rate (ESR) or plasma viscosity may be grossly elevated.

- Blood count/film reported as suggestive of acute leukaemia or chronic myeloid leukaemia.
- Lymphadenopathy (> 1 cm) persisting for 6 weeks.
- Hepatosplenomegaly
- Bone pain associated with anaemia and a raised ESR (or plasma viscosity).
- 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.

8. Skin Cancers

8.1 Key Points

Melanoma

Incidence: 4000 cases p.a. in England & Wales (1992)
Note: The incidence is increasing markedly (approx 6% p.a.).

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 **not** recommended that patients with suspected melanoma are biopsied in a general practice setting. Patients should be referred with the lesion intact to the local specialist.

Squamous Cell Carcinoma

Incidence: 9000 – 10,000 p.a. (estimate)

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
- **Commonest locations:**
 - Both sexes : face
back of hands
 - Men : scalp and ears
 - Women : lower legs

Referral Guidelines for Suspected Cancer

- Cancers tend to be larger (> 1 cm) than actinic keratoses and have a palpable component deep to the skin surface.

Basal Cell Carcinoma

- Very common, but metastasize very rarely, so there is no reason to refer urgently.
- Location : majority are on the face, particularly around the inner canthus and nose.
- Appearance: Slowly growing red pearly nodule on skin surface. Later may break down with crusting to give the classic 'rodent' ulcer
- The slow growth and low metastatic potential of these lesions mean that they do not need to be seen within 2 weeks. Nevertheless patients with suspected basal cell carcinoma should be seen by a specialist within 3 months.

1 Melanoma

- Pigmented lesions on any part of the body which have one or more of the following features:
 - growing in size
 - changing shape
 - irregular outline
 - changing colour
 - mixed colour
 - ulceration
 - inflammation

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

- Slowly growing, non-healing lesions with a significant induration on palpation (commonly on face, scalp, back of hand) – with documented expansion over a period of 1 – 2 months.
- Patients in whom 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 mainly squamous cell carcinoma. These tumours can be unusually aggressive and metastasize. It is therefore strongly recommended that transplant patients who develop new or growing cutaneous lesions should be referred under the two week standard.

9. Head and Neck Cancer

9.1 Key Points

Incidence : **Approximate Total:** 7000 cases p.a. in England & Wales

Mouth, lip, pharynx:	3600 cases p.a.
Larynx:	2,000 cases p.a.
Thyroid:	1,000 cases p.a.
Salivary:	700 cases p.a.

Risk Factors for Head + Neck Cancer (excluding thyroid)

- Smoking (90%)
- Tobacco chewing habits (including Betel, Gutkha, Pan)
- Alcohol
- Poor Diet
- Socially Deprived
- Older Age - but not thyroid

Common Symptoms

Larynx:	Hoarseness	80-90%
	Pain on swallowing	30-40%
	Dysphagia	30%
Nasopharynx:	Lump in the neck	80-90%
	Nasal obstruction	60%
	Deafness	50%
	Post Nasal Discharge	40-50%
Oral Cavity:	Ulceration/Visible Lesion	80%
	Pain	60%
	Lump in the neck	20-40%
Oropharynx:	Persistent sore throat	90%
	Lump in the neck	80%
	Otalgia	80%
Hypopharynx:	Dysphagia	80%
	Otalgia	60-70%
	Hoarseness	50%
Nasal Cavity:	Obstruction/congestion	80-90%
	Bleeding	70-80%

*Referral Guidelines for
Suspected Cancer*

Thyroid:	Thyroid lump	60%
	Discomfort in lower neck	80%
Salivary:	Lump in parotid <u>or</u> submandibular gland	90%
	Pain	10-20%
	Lump in Neck	10-20%

- Hoarseness persisting for > 6 weeks.
- Ulceration of oral mucosa persisting for > 3 weeks.
- Oral swellings persisting for > 3 weeks.
- All red or red and white patches of the oral mucosa.
- Dysphagia persisting for 3 weeks.
- Unilateral nasal obstruction particularly when associated with purulent discharge.
- Unexplained tooth mobility not associated with periodontal disease.
- Unresolving neck masses for > 3 weeks.
- Cranial neuropathies.
- Orbital masses.

The level of suspicion is further increased if the patient is a heavy smoker or heavy alcohol drinker and is aged over 45 years and male. Other forms of tobacco use (chewing Betel, Gutkha, Pan) should also arouse suspicion.

10. Brain Tumours

10.1 Key Points

Incidence: Approx 3500 cases p.a. in England & Wales

Age: Rare below 30 years – but relatively evenly distributed thereafter (peak at age 60 – 69 years).

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.
- Raised Intracranial Pressure (headache, vomiting, papilloedema).
- Cognitive/personality (mental state) changes.

Prevalence among patients presenting with brain tumours:

- Focal neurological deficit > 50 %
- Seizures 25-30%
- Headaches 25-35%
- Papilloedema 23-50%
- Mental changes 16-20%

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 %
- Headache of non-migrainous type < 1%

10.2 Brain Tumours : Guidelines for Urgent Referral

- Subacute progressive neurological deficit developing over days to weeks (e.g. weakness, sensory loss, dysphasia, ataxia).
- New onset seizures characterised by one or more of the following:
 - Focal seizures
 - Prolonged post-ictal focal deficit (longer than one hour)
 - Status epilepticus
 - Associated inter-ictal focal deficit
- Patients with headache, vomiting and papilloedema.
- Cranial nerve palsy (e.g. diplopia, visual failure including optician defined visual field loss, unilateral sensorineural deafness).

Consider urgent referral for:

- Patients with non-migrainous headaches of recent onset, present for at least one month, when accompanied by features suggestive of raised intra cranial pressure (e.g. woken by headache; vomiting; drowsiness).

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

Incidence:	Sarcomas are rare tumours
	Soft tissue sarcoma : approx 1000 p.a. UK
	Primary bone tumours : approx 400 p.a. UK

Soft Tissue Sarcoma

- Can occur at any age – more common over 30 years.
- Most soft tissue masses are benign (only 1 in 200 are malignant).
- Features of a soft tissue mass which are suggestive of malignancy include:
 - Size > 5 cms
 - Painful
 - Increasing in size
 - Deep to fascia
 - 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 tumours

Includes : Osteosarcoma, Ewing's Sarcoma and Chondrosarcoma

- Most common in adolescents
- 50% arise around the knee
- Symptoms include pain which is typically non-mechanical, waking the patient at night
- Bony swelling and limps are usually late features
- Most are diagnosed radiographically

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
 - Recurrence after previous excision

- Patients with radiological suspicion of a primary bone tumour based on evidence of bone destruction, new bone formation, soft tissue swelling and periosteal elevation.

12. Children's Tumours

12.1 Key Points

Incidence

- Approximately 1200 children aged < 15 years in England & Wales are diagnosed with cancer each year, giving a rate of 12 per 100,000 children < 15 years.
- 1 in 550 - 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 about 1/3 of all childhood cancers and brain/CNS tumours account for almost one quarter.

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 12.1

Childhood Cancers *

Childhood Cancer		No of Cases per year	Principal Age Group Affected
Acute leukaemia	ALL AML	310 60	2 – 4 years
Brain Tumours		280	
Lymphoma	Hodgkin's NHL	50 70	10 – 14 years
Neuroblastoma		80	< 4 years
Soft tissue sarcoma		80	
Wilms' tumour (nephroblastoma)		70	< 5 years
Bone sarcoma		60	10 – 14 years
Germ Cell Tumours		30	
Retinoblastoma		30	< 1 yr
Hepatoblastoma		10	< 1 yr

*Reference: C.Stiller et al. United Kingdom National Registry of Childhood Tumours, England and Wales 1981 – 1990. In D M Parkin et al (ed) International Incidence of Childhood Cancer, Vol II. IARC Scientific Publication No.144 IARC Lyon 1998 pp 365-367

Table 12.2

Childhood Tumour	Association
Leukaemia	Down's syndrome
CNS Tumours	Neurofibromatosis Type I
Wilms'	Aniridia, hemihypertrophy; Beckwith-Wiedemann Syndrome
Soft tissue sarcoma	Li Fraumeni syndrome (e.g. relatives with premenopausal breast cancer)
Hepatoblastoma	Familial adenomatous polyposis coli
Retinoblastoma	May be familial/heritable (mainly bilateral tumours)

1 Leukaemia

Children usually present with a relatively short history (weeks rather than months) with 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 rheumatoid arthritis.

2 Brain Tumours**Common presenting features:**

-	Headache	65-70%
-	Vomiting	65-70%
-	Changes in personality/mood	45-50%
-	Squint	}
-	Behaviour out of character	}
-	Deterioration in school performance	}
-	Growth failure	20%
-	(Rapidly increasing head circumference in infants)	

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: Lymphadenopathy and/or disease in mediastinum or abdomen. Rapid progression of symptoms.

4 Neuroblastoma

- Majority have symptoms of metastatic disease which may be indistinguishable clinically from acute leukaemia.
- Infants under one year may have localised abdominal or thoracic masses; very young infants (age < 6 months) may have rapidly progressive intra-abdominal disease.

5 Wilms' tumour (nephroblastoma)

- Unilateral abdominal mass ± pain
- Haematuria (rare)

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

- Limbs are the most common sites
- Persistent localised bone pain
- Plain x-ray usually helpful

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.

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 of recent origin 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
- associated with neurological signs (e.g. squint, ataxia)
- Associated with behavioural change or deterioration in school performance.

*Referral Guidelines for
Suspected Cancer*

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

Appendix 1

Steering Group Members

Prof M A Richards, National Cancer Director, Chair

Dr M Armitage	Physician	Bournemouth
Miss J Bridges	Gynaecologist	London
Ms J Fenelon	Regional Cancer Co-ordinator	Eastern Region
Mr J Fielding	Upper GI Surgeon	Birmingham
Prof E Gordon-Smith	Haematologist	London
Mr R Grimer	Orthopaedic Surgeon	Birmingham
Prof R Haward	Prof of Cancer Studies	Leeds
Ms S Hawkett	Cancer Policy	DoH
Dr A Hibble	General Practitioner	Stamford
Prof H Kitchener	Gynaecologist	Manchester
Prof J Langdon	Maxillofacial Surgeon	London
Prof R Mansel	Breast Surgeon	Cardiff
Prof R McKie	Dermatologist	Glasgow
Ms T Norman	Cancer Policy	DoH
Mr D O'Brien	Cancer Policy	DoH
Dr M Peake	Respiratory Physician	Pontefract
Prof S Proctor	Haematologist	Newcastle
Dr P Randev	General Practitioner	Leicester
Dr S Rankin	Radiologist	London
Dr J Rees	Neurologist	London
Prof A Richardson	Prof of Cancer Nursing	London
Dr M Stevens	Paediatric Oncologist	Birmingham
Dr N Summerton	General Practitioner	Hull
Dr S Tanner	Public Health Physician	Basingstoke
Mr M Thompson	Lower GI Surgeon	Portsmouth
Mr M Wallace	Urologist	Birmingham

Appendix 2

Working Party Members

Lung Cancer

Dr M Peake*	Respiratory Physician	Pontefract
Dr W Holmes	General Practitioner	Nottingham
Dr J MacFarlane	Respiratory Physician	Nottingham
Ms S Moore	Nurse	London
Dr M Muers	Respiratory Physician	Leeds
Dr R Robertson	Radiologist	Leeds
Mrs E Sergeant	Nurse	Warwick
Dr N Summerton	General Practitioner	Hull
Dr C Teale	Elderly Medicine	Leeds

Upper Gastrointestinal Cancer

Mr J Fielding*	Upper GI Surgeon	Birmingham
Prof D Alderson	Prof of Surgery	Bristol
Mr R Charnley	Surgeon	Newcastle
Dr M Dakin	General Practitioner	Birmingham
Dr A Hungin	General Practitioner	Durham
Dr J Jankowski	Physician	Birmingham
Dr G Lawrence	Cancer Intelligence Unit	Birmingham
Dr D Martin	Radiologist	Manchester
Mr P McCulloch	Upper GI Surgeon	Liverpool
Dr P Moayyedi	Gastroenterologist	Leeds

Lower Gastrointestinal Cancer

Mr M Thompson *	Surgeon	Portsmouth
Dr W Atkins	Epidemiologist	London
Prof C Coles	Educationalist	Bournemouth
Dr B Ellis	General Practitioner	Hampshire
Ms L Faulds Wood	Patient Representative	London

Dr I Heath	General Practitioner	London
Dr W Swarbrick	Gastroenterologist	Wolverhampton

Breast Cancer

Prof R Mansel *	Prof of Surgery	Cardiff
Dr J Austoker	Public Health Researcher	Oxford
Mr C Holcombe	Breast Surgeon	Liverpool
Prof C Wilkinson	Prof of General Practice	Cardiff

Gynaecological Cancers

Prof H Kitchener*	Prof of Gynaecological Oncology	Manchester
Miss J Bridges*	Gynaecological Oncologist	London
Dr P Sasieni	Epidemiologist	London
Dr A Rodway	General Practitioner	Sevenoaks
Dr M Milligan	Gynaecologist	Canterbury
Ms K Donnelly	Macmillan Nurse	Manchester
Ms K Hanscombe	Macmillan Nurse	London
Ms A Wadey	Practice Nurse	Poole

Urological Cancers

Mr M Wallace *	Urologist	Birmingham
Mr R Beard	Urologist	Worthing
Mr D Gillatt	Urologist	Bristol
Dr R Patel	General Practitioner	Leicestershire

Haematological Malignancies

Prof E Gordon-Smith *	Prof of Haematology	London
Prof D Linch	Prof of Haematology	London
Prof S Proctor	Prof of Haematological Medicine	Newcastle

Skin Cancers

Prof R McKie *	Prof of Dermatology	Glasgow
Dr J Buchan	General Practitioner	Powys
Dr J Evans	Plastic Surgeon	Plymouth
Dr R Graham Brown	Dermatologist	Leicester
Dr T Poyner	General Practitioner	Stockton-on-Tees
Prof T Swerdlow	Epidemiologist	London

Head and Neck Cancers

Prof J Langdon *	Maxillofacial Surgeon	London
Mr A E Brown	Maxillofacial Surgeon	East Sussex
Mr A J G Batch	ENT Surgeon	Birmingham
Mr M A Birchall	ENT Surgeon	Bristol
Miss A E Davies	ENT Surgeon	Portsmouth
Prof M McGurk	Maxillofacial Surgeon	London
Prof R Higgs	Gen Medical Practice/Primary Care	London
Prof N W Johnson	Oral Medicine & Pathology	London
Mr A Bardsley	Plastic Surgeon	Norfolk
Dr F M B Calman	Clinical Oncologist	London
Mr I C Martin	Maxillofacial Surgeon	Sunderland
Mr J C Watkinson	ENT Surgeon	Birmingham
Mr P J Bradley	ENT Surgeon	Nottingham
Dr N Slevin	Clinical Oncologist	Manchester
Mr A Batchelor	Plastic Surgeon	Leeds
Mr D Vaughan	Maxillofacial Surgeon	Liverpool
Mr P Williamson	ENT Consultant	Bristol
Mr G Feaver	Dental Officer	London
Dr D A L Morgan	Clinical Oncologist	Nottingham
Dr D Soutar	Plastic Surgeon	Glasgow
Dr T Helliwell	Consultant Radiologist	Liverpool
Mr N Dudley	Consultant Surgeon	Oxford
Mr P Rhys Evans	ENT Surgeon	London

Brain Tumours

Dr J Rees *	Neurologist	London
Dr E Davies	Public Health Physician	London
Prof P Goadsby	Prof of Neurology	London
Dr I Goodman	General Practitioner	Northwood H/C
Dr L Ridsdale	Reader in General Practice	London
Prof S Shorvon	Prof of Neurology	London
Prof D Thomas	Prof of Neurosurgery	London
Dr C Walford	A & E Medicine	London
Dr M Armitage	Physician	Bournemouth

Sarcomas

Mr R Grimer *	Orthopaedic Oncologist	Birmingham
Mr Meirion Thomas	Consultant Surgeon	London
Dr P Riley	Surgeon General Practitioner	Leicestershire

Children's Cancers

Dr M Stevens *	Paediatric Oncologist	Birmingham
Prof T Eden	Paediatric Oncologist	Manchester
Ms F Gibson	Nurse Specialist	London
Dr G Kissen	General Practitioner	Manchester
Dr D Walker	Paediatric Oncologist	Nottingham
Mr R Spicer	Paediatric Surgeon	Bristol
Dr H Mackinnon	Paediatrician	London
Ms R Hollis	Nurse Specialist	Leeds

* Chair of Tumour Working Party

Appendix 3

Respondents to Consultation Process

Written comments were received from:

- **Royal Colleges/Societies**

- Royal College of General Practitioners
- Royal College of Nursing
- Royal College of Ophthalmologists
- Royal College of Paediatrics and Child Health
- Royal College of Physicians
- Royal College of Physicians and Surgeons of Glasgow
- Royal College of Radiologists
- Royal College of Surgeons of England
- Royal Pharmaceutical Society

- **Associations/Specialist Groups**

- British Association of Dermatologists
- British Dental Association
- British Medical Association
- Faculty of Dental Surgery RCS England
- Joint Consultants Committee

- **Voluntary Organisations**

- Breakthrough Breast Cancer
- Cancerlink
- Cancer Support Centre, Bradford
- Crawley Cancer Contact
- Independent Healthcare Association
- Macmillan Cancer Relief
- Marie Curie Cancer Care
- National Conference of Cancer Self Help Groups
- Prostate Cancer Charity
- Prostate Research Campaign
- WNCCC

- **Individuals/Groups**

Approximate breakdown of responses:

Hospital doctors	48%
General Practitioners/PCGs	23%
NHS Managers	16%
Nurses	8%
Community Health Councils	3%
Other	2%

Appendix 4

Glossary

Actinic Keratosis	<i>A warty lesion occurring on the sun-exposed skin of the face or hands in older people</i>
Aniridia	<i>Absence of the iris of the eye</i>
Ataxia	<i>An inability to co-ordinate muscle activity; unsteadiness</i>
Clubbing	<i>A condition affecting the fingers and toes resulting in thickening and widening of the extremities with abnormally curved nails</i>
Dysphagia	<i>Difficulty in swallowing</i>
Dysphasia	<i>Difficulty in speaking</i>
Dyspnoea	<i>Difficulty in breathing; shortness of breath</i>
Haematuria	<i>Urine containing blood or red blood cells (Macroscopic = visible to the naked eye; Microscopic = invisible to the naked eye)</i>
Haemoptysis	<i>Spitting or coughing up blood from the lungs</i>
Hemihypertrophy	<i>Increase in size of one half of the face or body</i>
Haemiparesis	<i>Weakness affecting one side of the body</i>
Hepatomegaly	<i>Enlargement of the liver</i>
Hepatosplenomegaly	<i>Enlargement of the liver and spleen</i>
Lymphadenopathy	<i>Any disease process affecting a lymph node or lymph nodes</i>
Naevi	<i>Moles</i>
Orbit	<i>The bony cavity containing the eye</i>
Otalgia	<i>Earache</i>
Papilloedema	<i>Swelling of the optic disc (at the back of the eye)</i>

Periosteal

Relating to the fibrous membrane covering the surface of a bone

Postcoital

Occurring after sexual intercourse

Pyrexia

Fever

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