NICE National Institute for Health and Care Excellence

NICE guideline

Suspected cancer: recognition and referral

NICE guideline

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Contents

Introduction

This guideline updates and replaces NICE guideline CG27. Recommendations 1.1.1 to 1.1.3 update and replace recommendations 1.1.2 to 1.1.5 in NICE guideline CG121. The recommendations are labelled according to when they were originally published (see about this guideline for details).

Cancer has an enormous impact, both in terms of the number of people affected by it and the individual impact it has on people with cancer and those close to them. More than 300,000 new cancers (excluding skin cancers) are diagnosed annually in the UK, across over 200 different cancer types. Each of these cancer types has different presenting features, though they sometimes overlap. Approximately one-third of the population will develop a cancer in their lifetime. There is considerable variation in referral and testing for possible cancer, which cannot be fully explained by variation in the population.

The identification of people with possible cancer usually happens in primary care, because the large majority of people first present to a primary care clinician. Therefore, evidence from primary care should inform the identification process and was used as the basis for this guideline.

The recommendations were developed using a 'risk threshold', whereby if the risk of symptoms being caused by cancer is above a certain level then action (investigation or referral) is warranted. The positive predictive value (PPV) was used to determine the threshold. In the previous guideline, a disparate range of percentage risks of cancer was used to form the recommendations. Few corresponded with a PPV of lower than 5%. The Guideline Development Group (GDG) felt that, in order to improve diagnosis of cancer, a PPV threshold lower than 5% was preferable. Taking into account the financial and clinical costs of broadening the recommendations, the GDG agreed to use a 3% PPV threshold value to underpin the recommendations for suspected cancer pathway referrals and urgent direct access investigations, such as brain scanning or endoscopy. Certain exceptions to a 3% PPV threshold were agreed. Recommendations were made for children and young people at below the 3% PPV threshold, although no explicit threshold value was set. The threshold was not applied to recommendations relating to tests routinely available in primary care (including blood tests such as prostate-specific antigen and imaging such as chest X-ray), primary care tests that could be used in place of specialist referral, non-urgent direct access tests and routine referrals for specialist opinion. Further information about the methods used to underpin the recommendations can be found in the full version.

It is well recognised that some risk factors increase the chance of a person developing cancer in the future, for example, increasing age and a family history of cancer. However, risk factors do not

affect the way in which cancer presents. Of the risk factors that were reported in the evidence, only smoking (in lung cancer) and age were found to significantly influence the chance of symptoms being predictive of cancer. Therefore, these are included in the recommendations where relevant. For all other risk factors, the recommendations would be the same for people with possible symptoms of cancer, irrespective of whether they had a risk factor. However, an exception was made to include asbestos exposure in the recommendations because of the high relative risk of mesothelioma in people who have been exposed to asbestos.

This guideline covers the recognition and selection for referral or investigation in primary care of people of all ages, including children and young people, who may have cancer. Although we have used the terms 'men' and 'women' for recommendations on gender-related cancers, these recommendations also extend to people who have changed or are in the process of changing gender, and who retain the relevant organs.

The guideline aims to help people understand what to expect if they have symptoms that may suggest cancer. It should also help those in secondary care to understand which services should be provided for people with suspected cancer. Finally, these recommendations are recommendations, not requirements, and they are not intended to override clinical judgement.

The recommendations in this guideline have been organised into 3 separate sections to help clinicians find the relevant information easily. In the first, the recommendations are organised by cancer site. There is a section covering patient support, safety netting and the diagnostic process. Then, for those wanting to find recommendations on specific symptoms and primary care investigations, the recommendations are in a section organised by symptoms and investigation findings.

Safeguarding children

Remember that child maltreatment:

- is common
- can present anywhere
- may co-exist with other health problems, including suspected cancer.

See the NICE guideline on child maltreatment for clinical features that may be associated with maltreatment.

Patient-centred care

This guideline offers best practice advice on the care of people with suspected cancer.

Patients and healthcare professionals have rights and responsibilities as set out in the NHS Constitution for England – all NICE guidance is written to reflect these. Treatment and care should take into account individual needs and preferences. Patients should have the opportunity to make informed decisions about their care and treatment, in partnership with their healthcare professionals. If the patient is under 16, their family or carers should also be given information and support to help the child or young person to make decisions about their treatment. If it is clear that the child or young person fully understands the treatment and does not want their family or carers to be involved, they can give their own consent. Healthcare professionals should follow the Department of Health's advice on consent. If someone does not have capacity to make decisions, healthcare professionals should follow the code of practice that accompanies the Mental Capacity Act and the supplementary code of practice on deprivation of liberty safeguards.

NICE has produced guidance on the components of good patient experience in adult NHS services. All healthcare professionals should follow the recommendations in patient experience in adult NHS services.

If a young person is moving between paediatric and adult services, care should be planned and managed according to the best practice guidance described in the Department of Health's Transition: getting it right for young people.

Adult and paediatric healthcare teams should work jointly to provide assessment and services to young people with suspected cancer. Diagnosis and management should be reviewed throughout the transition process, and there should be clarity about who is the lead clinician to ensure continuity of care.

Terms used in this guideline

Children From birth to 15 years.

Children and young people From birth to 24 years.

Consistent with The finding has characteristics that could be caused by many things, including cancer.

Direct access When a test is performed and primary care retain clinical responsibility throughout, including acting on the result.

Immediate An acute admission or referral occurring within a few hours, or even more quickly if necessary.

Non-urgent The timescale generally used for a referral or investigation that is not considered very urgent or urgent.

Persistent The continuation of specified symptoms and/or signs beyond a period that would normally be associated with self-limiting problems. The precise period will vary depending on the severity of symptoms and associated features, as assessed by the health professional.

Raises the suspicion of A mass or lesion that has an appearance or a feel that makes the healthcare professional believe cancer is a significant possibility.

Safety netting The active monitoring in primary care of people who have presented with symptoms. It has 2 separate aspects:

- timely review and action after investigations
- active monitoring of symptoms in people at low risk (but not no risk) of having cancer to see if their risk of cancer changes.

Suspected cancer pathway referral The patient is seen within the national target for cancer referrals (2 weeks at the time of publication of this guideline).

Unexplained Symptoms or signs that have not led to a diagnosis being made by the healthcare professional in primary care after initial assessment (including history, examination and any primary care investigations).

Urgent To happen/be performed within 2 weeks.

Very urgent To happen within 48 hours.

Young people Aged 16–24 years.

1 Recommendations organised by site of cancer

The following guidance is based on the best available evidence. The full guideline gives details of the methods and the evidence used to develop the guidance.

The wording used in the recommendations in this guideline (for example, words such as 'offer' and 'consider') denotes the certainty with which the recommendation is made (the strength of the recommendation). See about this guideline for details.

The recommendations in this guideline have been organised into 3 separate sections to help healthcare professionals find the relevant information easily. This section includes the recommendations for investigation and referral organised by the site of the suspected cancer. The recommendations in this section have also been organised by symptoms and investigation findings in a separate section. There is also a section covering patient support, safety netting and the diagnostic process, which should be used in conjunction with this section.

1.1 Lung and pleural cancers

Lung cancer

Recommendations in this section update recommendations 1.1.2 to 1.1.5 in lung cancer, NICE guideline CG121.

1.1.1 Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) for lung cancer if they:

- have chest X-ray findings that suggest lung cancer **or**
- are aged 40 and over with unexplained haemoptysis. **[new 2015]**

1.1.2 Offer an urgent chest X-ray (to be performed within 2 weeks) to assess for lung cancer in people aged 40 and over if they have 2 or more of the following unexplained symptoms, **or** if they have ever smoked and have 1 or more of the following unexplained symptoms:

- cough
- fatigue
- shortness of breath

- chest pain
- weight loss
- appetite loss. **[new 2015]**

1.1.3 Consider an urgent chest X-ray (to be performed within 2 weeks) to assess for lung cancer in people aged 40 and over with any of the following:

- persistent or recurrent chest infection
- finger clubbing
- supraclavicular lymphadenopathy or persistent cervical lymphadenopathy
- chest signs consistent with lung cancer
- thrombocytosis. **[new 2015]**

Mesothelioma

1.1.4 Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) for mesothelioma if they have chest X-ray findings that suggest mesothelioma. **[new 2015]**

1.1.5 Offer an urgent chest X-ray (to be performed within 2 weeks) to assess for mesothelioma in people aged 40 and over, if:

- they have 2 or more of the following unexplained symptoms, **or**
- they have 1 or more of the following unexplained symptoms and have ever smoked, **or**
- they have 1 or more of the following unexplained symptoms and have been exposed to asbestos:
  - cough
  - fatigue
  - shortness of breath
  - chest pain

- weight loss
- appetite loss. **[new 2015]**

1.1.6 Consider an urgent chest X-ray (to be performed within 2 weeks) to assess for mesothelioma in people aged 40 and over with either:

- finger clubbing **or**
- chest signs compatible with pleural disease. **[new 2015]**

1.2 Upper gastrointestinal tract cancers

Oesophageal cancer

1.2.1 Offer urgent direct access upper gastrointestinal endoscopy (to be performed within 2 weeks) to assess for oesophageal cancer in people:

- with dysphagia **or**
- aged 55 and over with weight loss **and** any of the following:
  - upper abdominal pain
  - reflux
  - dyspepsia. **[new 2015]**

1.2.2 Consider non-urgent direct access upper gastrointestinal endoscopy to assess for oesophageal cancer in people with haematemesis. **[new 2015]**

1.2.3 Consider non-urgent direct access upper gastrointestinal endoscopy to assess for oesophageal cancer in people aged 55 or over with:

- treatment-resistant dyspepsia **or**
- upper abdominal pain with low haemoglobin levels **or**
- raised platelet count with any of the following:
  - nausea
  - vomiting

  - weight loss
  - reflux
  - dyspepsia
  - upper abdominal pain, **or**

- nausea or vomiting with any of the following:
  - weight loss
  - reflux
  - dyspepsia
  - upper abdominal pain. **[new 2015]**

Pancreatic cancer

1.2.4 Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) for pancreatic cancer if they are aged 40 and over and have jaundice. **[new 2015]**

1.2.5 Consider an urgent direct access CT scan (to be performed within 2 weeks), or an urgent ultrasound scan if CT is not available, to assess for pancreatic cancer in people aged 60 and over with weight loss **and** any of the following:

- diarrhoea
- back pain
- abdominal pain
- nausea
- vomiting
- constipation
- new-onset diabetes. **[new 2015]**

Stomach cancer

1.2.6 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for people with an upper abdominal mass consistent with stomach cancer. **[new 2015]**

1.2.7 Offer urgent direct access upper gastrointestinal endoscopy (to be performed within 2 weeks) to assess for stomach cancer in people:

- with dysphagia **or**
- aged 55 and over with weight loss **and** any of the following:
  - upper abdominal pain
  - reflux
  - dyspepsia. **[new 2015]**

1.2.8 Consider non-urgent direct access upper gastrointestinal endoscopy to assess for stomach cancer in people with haematemesis. **[new 2015]**

1.2.9 Consider non-urgent direct access upper gastrointestinal endoscopy to assess for stomach cancer in people aged 55 or over with:

- treatment-resistant dyspepsia **or**
- upper abdominal pain with low haemoglobin levels **or**
- raised platelet count with any of the following:
  - nausea
  - vomiting
  - weight loss
  - reflux
  - dyspepsia
  - upper abdominal pain, **or**

- nausea or vomiting with any of the following:
  - weight loss
  - reflux
  - dyspepsia
  - upper abdominal pain. **[new 2015]**

Gall bladder cancer

1.2.10 Consider an urgent direct access ultrasound scan (to be performed within 2 weeks) to assess for gall bladder cancer in people with an upper abdominal mass consistent with an enlarged gall bladder. **[new 2015]**

Liver cancer

1.2.11 Consider an urgent direct access ultrasound scan (to be performed within 2 weeks) to assess for liver cancer in people with an upper abdominal mass consistent with an enlarged liver. **[new 2015]**

1.3 Lower gastrointestinal tract cancers

Colorectal cancer

1.3.1 Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) for colorectal cancer if:

- they are aged 40 and over with unexplained weight loss and abdominal pain **or**
- they are aged 50 and over with unexplained rectal bleeding **or**
- they are aged 60 and over with:
  - iron-deficiency anaemia **or**
  - changes in their bowel habit, **or**
- tests show occult blood in their faeces (see recommendation 1.3.4 for who should be offered a test for occult blood in faeces). **[new 2015]**

1.3.2 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for colorectal cancer in people with a rectal or abdominal mass. **[new 2015]**

1.3.3 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for colorectal cancer in adults aged under 50 with rectal bleeding **and** any of the following unexplained symptoms or findings:

- abdominal pain
- change in bowel habit
- weight loss
- iron-deficiency anaemia. **[new 2015]**

1.3.4 Offer testing for occult blood in faeces to assess for colorectal cancer in adults without rectal bleeding who:

- are aged 50 and over with unexplained:
  - abdominal pain **or**
  - weight loss, **or**
- are aged under 60 with:
  - changes in their bowel habit **or**
  - iron-deficiency anaemia, **or**
- are aged 60 and over and have anaemia even in the absence of iron deficiency. **[new 2015]**

Anal cancer

1.3.5 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for anal cancer in people with an unexplained anal mass or unexplained anal ulceration. **[new 2015]**

1.4 *Breast cancer*

1.4.1 Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) for breast cancer if they are:

- aged 30 and over and have an unexplained breast lump with or without pain **or**
- aged 50 and over with any of the following symptoms in one nipple only:
  - discharge
  - retraction
  - other changes of concern. **[new 2015]**

1.4.2 Consider a suspected cancer pathwayreferral (for an appointment within 2 weeks) for breast cancer in people:

- with skin changes that suggest breast cancer **or**
- aged 30 and over with an unexplained lump in the axilla. **[new 2015]**

1.4.3 Consider non-urgent referral in people aged under 30 with an unexplained breast lump with or without pain. See also recommendations 1.16.2 and 1.16.3 for information about seeking specialist advice. **[new 2015]**

1.5 *Gynaecological cancers*

Ovarian cancer

The recommendations in this section have been incorporated from the NICE guideline on ovarian cancer (NICE guideline CG122, 2011) and have not been updated. The recommendations for ovarian cancer apply to women aged 18 and over.

1.5.1 Refer the woman urgently[1] if physical examination identifies ascites and/or a pelvic or abdominal mass (which is not obviously uterine fibroids). **[2011]**

1.5.2 Carry out tests in primary care (see recommendations 1.5.6 to 1.5.9) if a woman (especially if 50 or over) reports having any of the following symptoms on a persistent or frequent basis – particularly more than 12 times per month:

- persistent abdominal distension (women often refer to this as 'bloating')
- feeling full (early satiety) and/or loss of appetite
- pelvic or abdominal pain
- increased urinary urgency and/or frequency. **[2011]**

1.5.3 Consider carrying out tests in primary care (see recommendations 1.5.6 to 1.5.9) if a woman reports unexplained weight loss, fatigue or changes in bowel habit. **[2011]**

1.5.4 Advise any woman who is not suspected of having ovarian cancer to return to her GP if her symptoms become more frequent and/or persistent. **[2011]**

1.5.5 Carry out appropriate tests for ovarian cancer (see recommendations 1.5.6 to 1.5.9) in any woman of 50 or over who has experienced symptoms within the last 12 months that suggest irritable bowel syndrome (IBS)[2], because IBS rarely presents for the first time in women of this age. **[2011]**

1.5.6 Measure serum CA125 in primary care in women with symptoms that suggest ovarian cancer (see recommendations 1.5.1 to 1.5.5). **[2011]**

1.5.7 If serum CA125 is 35 IU/ml or greater, arrange an ultrasound scan of the abdomen and pelvis. **[2011]**

1.5.8 If the ultrasound suggests ovarian cancer, refer the woman urgently[1] for further investigation. **[2011]**

1.5.9 For any woman who has normal serum CA125 (less than 35 IU/ml), or CA125 of 35 IU/ml or greater but a normal ultrasound:

- assess her carefully for other clinical causes of her symptoms and investigate if appropriate
- if no other clinical cause is apparent, advise her to return to her GP if her symptoms become more frequent and/or persistent. **[2011]**

Endometrial cancer

1.5.10 Refer women using a suspected cancer pathway referral (for an appointment within 2 weeks) for endometrial cancer if they are aged 55 and over with post-menopausal bleeding (unexplained vaginal bleeding more than 12 months after menstruation has stopped because of the menopause). **[new 2015]**

1.5.11 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for endometrial cancer in women aged under 55 with post-menopausal bleeding. **[new 2015]**

1.5.12 Consider a direct access ultrasound scan to assess for endometrial cancer in women aged 55 and over with:

- unexplained symptoms of vaginal discharge who:
  - are presenting with these symptoms for the first time **or**
  - have thrombocytosis **or**
  - report haematuria, **or**
- visible haematuria **and**:
  - low haemoglobin levels **or**
  - thrombocytosis **or**
  - high blood glucose levels. **[new 2015]**

Cervical cancer

1.5.13 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for women if, on examination, the appearance of their cervix is consistent with cervical cancer. **[new 2015]**

Vulval cancer

1.5.14 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for vulval cancer in women with an unexplained vulval lump, ulceration or bleeding. **[new 2015]**

Vaginal cancer

1.5.15 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for vaginal cancer in women with an unexplained palpable mass in or at the entrance to the vagina. **[new 2015]**

1.6 Urological cancers

Prostate cancer

1.6.1 Refer men using a suspected cancer pathway referral (for an appointment within 2 weeks) for prostate cancer if their prostate feels malignant on digital rectal examination. **[new 2015]**

1.6.2 Consider a prostate-specific antigen (PSA) test and digital rectal examination to assess for prostate cancer in men with:

- any lower urinary tract symptoms, such as nocturia, urinary frequency, hesitancy, urgency or retention **or**
- erectile dysfunction **or**
- visible haematuria. **[new 2015]**

1.6.3 Refer men using a suspected cancer pathway referral (for an appointment within 2 weeks) for prostate cancer if their PSA levels are above the age-specific reference range. **[new 2015]**

Bladder cancer

1.6.4 Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) for bladder cancer if they are:

- aged 45 and over and have:
  - unexplained visible haematuria without urinary tract infection **or**
  - visible haematuria that persists or recurs after successful treatment of urinary tract infection, **or**

- aged 60 and over and have unexplained non-visible haematuria **and** either dysuria or a raised white cell count on a blood test. **[new 2015]**

1.6.5 Consider non-urgent referral for bladder cancer in people aged 60 and over with recurrent or persistent unexplained urinary tract infection. **[new 2015]**

Renal cancer

1.6.6 Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) for renal cancer if they are aged 45 and over and have:

- unexplained visible haematuria without urinary tract infection **or**
- visible haematuria that persists or recurs after successful treatment of urinary tract infection. **[new 2015]**

Testicular cancer

1.6.7 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for testicular cancer in men if they have a non-painful enlargement or change in shape or texture of the testis. **[new 2015]**

1.6.8 Consider a direct access ultrasound scan for testicular cancer in men with unexplained or persistent testicular symptoms. **[new 2015]**

Penile cancer

1.6.9 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for penile cancer in men if they have either:

- a penile mass **or** ulcerated lesion, where a sexually transmitted infection has been excluded as a cause, **or**
- a persistent penile lesion after treatment for a sexually transmitted infection has been completed. **[new 2015]**

1.6.10 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for penile cancer in men with unexplained or persistent symptoms affecting the foreskin or glans. **[new 2015]**

1.7 Skin cancers

Malignant melanoma of the skin

1.7.1 Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) for melanoma if they have a suspicious pigmented skin lesion with a weighted 7-point checklist score of 3 or more. **[new 2015]**

> Weighted 7-point checklist
>
> Major features of the lesions (scoring 2 points each):
>
> - change in size
> - irregular shape
> - irregular colour.
>
> Minor features of the lesions (scoring 1 point each):
>
> - largest diameter 7 mm or more
> - inflammation
> - oozing
> - change in sensation.

1.7.2 Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) if dermoscopy suggests melanoma of the skin. **[new 2015]**

1.7.3 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for melanoma in people with a pigmented or non-pigmented skin lesion that suggests nodular melanoma. **[new 2015]**

Squamous cell carcinoma

1.7.4 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for people with a skin lesion that raises the suspicion of squamous cell carcinoma. **[new 2015]**

Basal cell carcinoma

1.7.5 Consider routine referral for people if they have a skin lesion that raises the suspicion of a basal cell carcinoma[3]. **[new 2015]**

1.7.6 Only consider a suspected cancer pathway referral (for an appointment within 2 weeks) for people with a skin lesion that raises the suspicion of a basal cell carcinoma if there is particular concern that a delay may have a significant impact, because of factors such as lesion site or size. **[new 2015]**

1.7.7 Follow the NICE guidance on improving outcomes for people with skin tumours including melanoma: the management of low-risk basal cell carcinomas in the community (2010 update) for advice on who should excise suspected basal cell carcinomas. **[new 2015]**

1.8 Head and neck cancers

Laryngeal cancer

1.8.1 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for laryngeal cancer in people aged 45 and over with:

- persistent unexplained hoarseness **or**
- an unexplained lump in the neck. **[new 2015]**

Oral cancer

1.8.2 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for oral cancer in people with either:

- unexplained ulceration in the oral cavity lasting for more than 3 weeks **or**
- a persistent and unexplained lump in the neck. **[new 2015]**

1.8.3 Consider an urgent referral (for an appointment within 2 weeks) for assessment for possible oral cancer by a dentist in people who have either:

- a lump on the lip or in the oral cavity **or**

- a red or red and white patch in the oral cavity consistent with erythroplakia or erythroleukoplakia. **[new 2015]**

1.8.4 Consider a suspected cancer pathway referral by the dentist (for an appointment within 2 weeks) for oral cancer in people when assessed by a dentist as having either:

- a lump on the lip or in the oral cavity consistent with oral cancer **or**
- a red or red and white patch in the oral cavity consistent with erythroplakia or erythroleukoplakia. **[new 2015]**

Thyroid cancer

1.8.5 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for thyroid cancer in people with an unexplained thyroid lump. **[new 2015]**

1.9 Brain and central nervous system cancers

Adults

1.9.1 Consider an urgent direct access MRI scan of the brain (or CT scan if MRI is contraindicated) (to be performed within 2 weeks) to assess for brain or central nervous system cancer in adults with progressive, sub-acute loss of central neurological function. **[new 2015]**

Children and young people

1.9.2 Consider a very urgent referral (for an appointment within 48 hours) for suspected brain or central nervous system cancer in children and young people with newly abnormal cerebellar or other central neurological function. **[new 2015]**

1.10 Haematological cancers

Leukaemia in adults

1.10.1 Consider a very urgent full blood count (within 48 hours) to assess for leukaemia in adults with any of the following:

- pallor
- persistent fatigue
- unexplained fever
- unexplained persistent or recurrent infection
- generalised lymphadenopathy
- unexplained bruising
- unexplained bleeding
- unexplained petechiae
- hepatosplenomegaly. **[new 2015]**

Leukaemia in children and young people

1.10.2 Refer children and young people for immediate specialist assessment for leukaemia if they have unexplained petechiae or hepatosplenomegaly. **[new 2015]**

1.10.3 Offer a very urgent full blood count (within 48 hours) to assess for leukaemia in children and young people with any of the following:

- pallor
- persistent fatigue
- unexplained fever
- unexplained persistent infection
- generalised lymphadenopathy
- persistent or unexplained bone pain
- unexplained bruising
- unexplained bleeding. **[new 2015]**

Myeloma

1.10.4 Offer a full blood count, blood tests for calcium and plasma viscosity or erythrocyte sedimentation rate to assess for myeloma in people aged 60 and over with persistent bone pain, particularly back pain, or unexplained fracture. **[new 2015]**

1.10.5 Offer very urgent protein electrophoresis and a Bence-Jones protein urine test (within 48 hours) to assess for myeloma in people aged 60 and over with hypercalcaemia or leukopenia and a presentation that is consistent with possible myeloma. **[new 2015]**

1.10.6 Consider very urgent protein electrophoresis and a Bence-Jones protein urine test (within 48 hours) to assess for myeloma if the plasma viscosity or erythrocyte sedimentation rate and presentation are consistent with possible myeloma. **[new 2015]**

1.10.7 Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) if the results of protein electrophoresis or a Bence-Jones protein urine test suggest myeloma. **[new 2015]**

Non-Hodgkin's lymphoma in adults

1.10.8 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for non-Hodgkin's lymphoma in adults[4] presenting with unexplained lymphadenopathy or splenomegaly. When considering referral, take into account any associated symptoms, particularly fever, night sweats, shortness of breath, pruritus or weight loss. **[new 2015]**

Non-Hodgkin's lymphoma in children and young people

1.10.9 Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment for non-Hodgkin's lymphoma in children and young people[4] presenting with unexplained lymphadenopathy **or** splenomegaly. When considering referral, take into account any associated symptoms, particularly fever, night sweats, shortness of breath, pruritus or weight loss. **[new 2015]**

Hodgkin's lymphoma in adults

1.10.10 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for Hodgkin's lymphoma in adults[4] presenting with unexplained lymphadenopathy. When considering referral, take into account any associated symptoms, particularly fever, night sweats, shortness of breath, pruritus, weight loss or alcohol-induced lymph node pain. **[new 2015]**

Hodgkin's lymphoma in children and young people

1.10.11 Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment for Hodgkin's lymphoma in children and young people[4] presenting with unexplained lymphadenopathy. When considering referral, take into account any associated symptoms, particularly fever, night sweats, shortness of breath, pruritus or weight loss. **[new 2015]**

1.11 Sarcomas

Bone sarcoma in adults

1.11.1 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for adults[4] if an X-ray suggests the possibility of bone sarcoma. **[new 2015]**

Bone sarcoma in children and young people

1.11.2 Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment for children and young people[4] if an X-ray suggests the possibility of bone sarcoma. **[new 2015]**

1.11.3 Consider a very urgent direct access X-ray (to be performed within 48 hours) to assess for bone sarcoma in children and young people with unexplained bone swelling or pain. **[new 2015]**

Soft tissue sarcoma in adults

1.11.4 Consider an urgent direct access ultrasound scan (to be performed within 2 weeks) to assess for soft tissue sarcoma in adults[4] with an unexplained lump that is increasing in size. **[new 2015]**

1.11.5 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for adults[4] if they have ultrasound scan findings that are suggestive of soft tissue sarcoma or if ultrasound findings are uncertain and clinical concern persists. **[new 2015]**

Soft tissue sarcoma in children and young people

1.11.6 Consider a very urgent direct access ultrasound scan (to be performed within 48 hours) to assess for soft tissue sarcoma in children and young people[4] with an unexplained lump that is increasing in size. **[new 2015]**

1.11.7 Consider a very urgent referral (for an appointment within 48 hours) for children and young people[4] if they have ultrasound scan findings that are suggestive of soft tissue sarcoma or if ultrasound findings are uncertain and clinical concern persists. **[new 2015]**

1.12 Childhood cancers

Neuroblastoma

1.12.1 Consider very urgent referral (for an appointment within 48 hours) for specialist assessment for neuroblastoma in children with a palpable abdominal mass or unexplained enlarged abdominal organ. **[new 2015]**

Retinoblastoma

1.12.2 Consider urgent referral (for an appointment within 2 weeks) for ophthalmological assessment for retinoblastoma in children with an absent red reflex. **[new 2015]**

Wilms' tumour

1.12.3 Consider very urgent referral (for an appointment within 48 hours) for specialist assessment for Wilms' tumour in children with any of the following:

- a palpable abdominal mass
- an unexplained enlarged abdominal organ
- unexplained visible haematuria. **[new 2015]**

1.13 Non-site-specific symptoms

Some symptoms or symptom combinations may be features of several different cancers. For some of these symptoms, the risk for each individual cancer may be low but the total risk of cancer of any type may be higher. This section includes recommendations for these symptoms.

Symptoms of concern in children and young people

1.13.1 Take into account the insight and knowledge of parents and carers when considering making a referral for suspected cancer in a child or young person. Consider referral for children if their parent or carer has persistent concern or anxiety about the child's symptoms, even if the symptoms are most likely to have a benign cause. **[2015]**

Symptoms of concern in adults

1.13.2 For people with unexplained weight loss, which is a symptom of several cancers including colorectal, gastro-oesophageal, lung, prostate, pancreatic and urological cancer:

- carry out an assessment for additional symptoms, signs or findings that may help to clarify which cancer is most likely **and**
- offer urgent investigation or a suspected cancer pathway referral (for an appointment within 2 weeks). **[new 2015]**

1.13.3 For people with unexplained appetite loss, which is a symptom of several cancers including lung, oesophageal, stomach, colorectal, pancreatic, bladder and renal cancer:

- carry out an assessment for additional symptoms, signs or findings that may help to clarify which cancer is most likely **and**
- offer urgent investigation or a suspected cancer pathway referral (for an appointment within 2 weeks). **[new 2015]**

1.13.4 For people with deep vein thrombosis, which is associated with several cancers including urogenital, breast, colorectal and lung cancer:

- carry out an assessment for additional symptoms, signs or findings that may help to clarify which cancer is most likely **and**
- consider urgent investigation or a suspected cancer pathway referral (for an appointment within 2 weeks). **[new 2015]**

[1] An urgent referral means that the woman is referred to a gynaecological cancer service within the national target in England and Wales for referral for suspected cancer, which is currently 2 weeks.

[2] See the NICE guideline on irritable bowel syndrome in adults.

[3] Typical features of basal cell carcinoma include: an ulcer with a raised rolled edge; prominent fine blood vessels around a lesion; or a nodule on the skin (particularly pearly or waxy nodules).

[4] Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.

Recommendations on patient support, safety netting and the diagnostic process

The following guidance is based on the best available evidence. The full guideline gives details of the methods and the evidence used to develop the guidance.

The wording used in the recommendations in this guideline (for example, words such as 'offer' and 'consider') denotes the certainty with which the recommendation is made (the strength of the recommendation). See about this guideline for details.

The recommendations in this guideline have been organised into 3 separate sections to help healthcare professionals find the relevant information easily. This section includes the recommendations on patient support, safety netting and the diagnostic process. There are also sections covering the recommendations for investigation and referral organised by the site of the suspected cancer and organised by symptoms and investigation findings.

1.14 Patient information and support

1.14.1 Discuss with people with suspected cancer (and their carers as appropriate, taking account of the need for confidentiality) their preferences for being involved in decision-making about referral options and further investigations including their potential risks and benefits. [2015]

1.14.2 When cancer is suspected in a child, discuss the referral decision and information to be given to the child with the parents or carers (and the child if appropriate). [2015]

1.14.3 Explain to people who are being referred with suspected cancer that they are being referred to a cancer service. Reassure them, as appropriate, that most people referred will not have a diagnosis of cancer, and discuss alternative diagnoses with them. [2015]

1.14.4 Give the person information on the possible diagnosis (both benign and malignant) in accordance with their wishes for information (see also the NICE guideline on patient experience in adult NHS services). [2015]

1.14.5 The information given to people with suspected cancer and their families and/or carers should cover, among other issues:

- where the person is being referred to
- how long they will have to wait for the appointment
- how to obtain further information about the type of cancer suspected or help before the specialist appointment
- what to expect from the service the person will be attending
- what type of tests may be carried out, and what will happen during diagnostic procedures
- how long it will take to get a diagnosis or test results
- whether they can take someone with them to the appointment
- who to contact if they do not receive confirmation of an appointment
- other sources of support. **[new 2015]**

1.14.6 Provide information that is appropriate for the person in terms of language, ability and culture, recognising the potential for different cultural meanings associated with the possibility of cancer. **[2015]**

1.14.7 Have information available in a variety of formats on both local and national sources of information and support for people who are being referred with suspected cancer. For more information on information sharing, see section 1.5 in the NICE guideline on patient experience in adult NHS services. **[new 2015]**

1.14.8 Reassure people in the safety netting group (see recommendation 1.15.2) who are concerned that they may have cancer that with their current symptoms their risk of having cancer is low. **[new 2015]**

1.14.9 Explain to people who are being offered safety netting (see recommendation 1.15.2) which symptoms to look out for and when they should return for re-evaluation. It may be appropriate to provide written information. **[new 2015]**

1.14.10 When referring a person with suspected cancer to a specialist service, assess their need for continuing support while waiting for their referral appointment. This should include inviting the person to contact their healthcare professional

again if they have more concerns or questions before they see a specialist. [2005]

1.14.11 If the person has additional support needs because of their personal circumstances, inform the specialist (with the person's agreement). [2005]

1.15 Safety netting

1.15.1 Ensure that the results of investigations are reviewed and acted upon appropriately, with the healthcare professional who ordered the investigation taking or explicitly passing on responsibility for this. Be aware of the possibility of false-negative results for chest X-rays and tests for occult blood in faeces. [new 2015]

1.15.2 Consider a review for people with any symptom that is associated with an increased risk of cancer, but who do not meet the criteria for referral or other investigative action. The review may be:

- planned within a time frame agreed with the person **or**
- patient-initiated if new symptoms develop, the person continues to be concerned, or their symptoms recur, persist or worsen. [new 2015]

1.16 The diagnostic process

1.16.1 Take part in continuing education, peer review and other activities to improve and maintain clinical consulting, reasoning and diagnostic skills, in order to identify at an early stage people who may have cancer, and to communicate the possibility of cancer to the person. [2005]

1.16.2 Discussion with a specialist (for example, by telephone or email) should be considered if there is uncertainty about the interpretation of symptoms and signs, and whether a referral is needed. This may also enable the primary healthcare professional to communicate their concerns and a sense of urgency to secondary healthcare professionals when symptoms are not classical. [2005]

1.16.3 Put in place local arrangements to ensure that letters about non-urgent referrals are assessed by the specialist, so that the person can be seen more urgently if necessary. [2005]

1.16.4 Put in place local arrangements to ensure that there is a maximum waiting period for non-urgent referrals, in accordance with national targets and local arrangements. [2005]

1.16.5 Ensure local arrangements are in place to identify people who miss their appointments so that they can be followed up. [2005]

1.16.6 Include all appropriate information in referral correspondence, including whether the referral is urgent or non-urgent. [2005]

1.16.7 Use local referral proformas if these are in use. [2005]

1.16.8 Once the decision to refer has been made, make sure that the referral is made within 1 working day. [2005]

Recommendations organised by symptom and findings of primary care investigations

The following guidance is based on the best available evidence. The full guideline gives details of the methods and the evidence used to develop the guidance.

The wording used in the recommendations in this guideline (for example, words such as 'offer' and 'consider') denotes the certainty with which the recommendation is made (the strength of the recommendation). See about this guideline for details.

The recommendations in this guideline have been organised into 3 separate sections to help healthcare professionals find the relevant information easily. This section includes the recommendations for investigation and referral organised by symptoms and investigation findings. The recommendations in this section have also been organised by site of suspected cancer in a separate section. There is also a section covering patient support, safety netting and the diagnostic process, which should be used in conjunction with this section. .

The recommendations in this section are displayed alphabetically by symptom then in order of urgency of the action needed, to make sure that most urgent actions are not missed. Where there are several recommendations relating to the same cancer these have been grouped for ease of reference. Occasionally the same symptom may suggest more than one cancer site. In such instances the recommendations are displayed together and the GP should use their clinical judgement to decide on the most appropriate action.

Abdominal symptoms

See also bleeding for recommendations on rectal bleeding.

Abdominal distension

Symptom and specific features	Possible cancer	Recommendation

Abdominal distension (persistent or frequent – particularly more than 12 times per month) in women, especially if 50 and over.	Ovarian	Carry out tests in primary care[1] [1.5.2] Measure serum CA125 in primary care[1] [1.5.6] See primary care investigations for more information on tests for ovarian cancer
[1]The recommendations for ovarian cancer apply to women aged 18 and over.		

Abdominal examination findings

Symptoms and signs	Possible cancer	Recommendation
Ascites and/or a pelvic or abdominal mass identified by physical examination (which is not obviously uterine fibroids) in women	Ovarian	Refer urgently[1,2] [1.5.1]
[1]An urgent referral means that the woman is referred to a gynaecological cancer service within the national target in England and Wales for referral for suspected cancer, which is currently 2 weeks. [2]The recommendations for ovarian cancer apply to women aged 18 and over.		

Abdominal, pelvic or rectal mass or enlarged abdominal organ

Symptom and specific features	Possible cancer	Recommendation
Abdominal or pelvic mass identified by physical examination (which is not obviously uterine fibroids) in women	Ovarian	Refer urgently[1,2] [1.5.1]
Abdominal or rectal mass	Colorectal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.2]

Splenomegaly (unexplained) in adults[3]	Non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms, particularly fever, night sweats, shortness of breath, pruritus or weight loss. [1.10.8]
Upper abdominal massconsistent with stomach cancer	Stomach	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.2.6]
Upper abdominal mass consistent with an enlarged gall bladder	Gall bladder	Consider an urgent direct access ultrasound scan (to be performed within 2 weeks) [1.2.10]
Upper abdominal mass consistent with an enlarged liver	Liver	Consider an urgent direct access ultrasound scan (to be performed within 2 weeks) [1.2.11]
Hepatosplenomegaly	Leukaemia	Consider a very urgent full blood count (within 48 hours) [1.10.1]

[1]An urgent referral means that the woman is referred to a gynaecological cancer service within the national target in England and Wales for referral for suspected cancer, which is currently 2 weeks

[2]The recommendations for ovarian cancer apply to women aged 18 and over.

[3]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.

Abdominal or pelvic pain

Symptom and specific features	Possible cancer	Recommendation
Abdominal pain with weight loss (unexplained), 40 and over	Colorectal	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.1]

Abdominal pain (unexplained) with rectal bleeding in adults under 50	Colorectal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.3]
Abdominal pain without rectal bleeding, 50 and over	Colorectal	Offer testing for occult blood in faeces [1.3.4] See primary care investigations for more information on tests for occult blood in faeces
Upper abdominal pain with weight loss, 55 and over	Oesophageal or stomach	Offer urgent direct access upper gastrointestinal endoscopy (to be performed within 2 weeks) [1.2.1] [1.2.7]
Upper abdominal pain with low haemoglobin levels or raised platelet count or nausea or vomiting, 55 and over	Oesophageal or stomach	Consider non-urgent direct access upper gastrointestinal endoscopy [1.2.3] [1.2.9]
Abdominal or pelvic pain (persistent or frequent – particularly more than 12 times per month) in women, especially if 50 and over	Ovarian	Carry out tests in primary care[1] [1.5.2] Measure serum CA125 in primary care[1] [1.5.6] See primary care investigations for more information on tests for ovarian cancer
Abdominal pain with weight loss, 60 and over	Pancreatic	Consider an urgent direct access CT scan (to be performed within 2 weeks), or an urgent ultrasound scan if CT is not available[1.2.5]
Irritable bowel syndrome symptoms[2] within the last 12 months in women 50 and over	Ovarian	Carry out appropriate tests for ovarian cancer, because irritable bowel syndrome rarely presents for the first time in women of this age[1] [1.5.5] Measure serum CA125 in primary care [1.5.6] See primary care investigations for more information on tests for ovarian cancer

[1]The recommendations for ovarian cancer apply to women aged 18 and over.

[2]See the NICE guideline on irritable bowel syndrome in adults.

Change in bowel habit

Symptom and specific features	Possible cancer	Recommendation
Change in bowel habit (unexplained), 60 and over	Colorectal	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.1]
Change in bowel habit (unexplained) with rectal bleeding, in adults under 50	Colorectal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.3]
Change in bowel habit without rectal bleeding, under 60	Colorectal	Offer testing for occult blood in faeces [1.3.4] See primary care investigations for more information on tests for occult blood in faeces
Change in bowel habit. (unexplained) in women	Ovarian	Consider carrying out tests in primary care[1] [1.5.3] Measure serum CA125 in primary care[1] [1.5.6] See primary care investigations for information on tests for ovarian cancer
Diarrhoea or constipation with weight loss, 60 and over	Pancreatic	Consider an urgent direct access CT scan (to be performed within 2 weeks), or an urgent ultrasound scan if CT is not available [1.2.5]
Irritable bowel syndrome symptoms within the last 12 months, in women 50 and over	Ovarian	Carry out appropriate tests for ovarian cancer), because irritable bowel syndrome rarely presents for the first time in women of this age[1] [1.5.5] Measure serum CA125 in primary care [1.5.6] See primary care investigations for more information about tests for ovarian cancer
[1]The recommendations for ovarian cancer apply to women aged 18 and over. [2]See the NICE guideline on irritable bowel syndrome in adults.		

Dyspepsia

Symptom and specific features	Possible cancer	Recommendation
Dyspepsia (treatment-resistant), 55 and over	Oesophageal or stomach	Consider non-urgent direct access upper gastrointestinal endoscopy [1.2.3] [1.2.9]
Dyspepsia Dyspepsia with weight loss, 55 and over	Oesophageal or stomach	Offer urgent direct access upper gastrointestinal endoscopy (to be performed within 2 weeks) [1.2.1] [1.2.7]
Dyspepsia with raised platelet count or nausea or vomiting, 55 and over	Oesophageal or stomach	Consider non-urgent direct access upper gastrointestinal endoscopy [1.2.3] [1.2.9]

Dysphagia

Symptom and specific features	Possible cancer	Recommendation
Dysphagia	Oesophageal or stomach	Offer urgent direct access upper gastrointestinal endoscopy (to be performed within 2 weeks) [1.2.1, 1.2.7]

Nausea or vomiting

Symptom and specific features	Possible cancer	Recommendation
Nausea or vomiting with weight loss, 60 and over	Pancreatic	Consider an urgent direct access CT scan (to be performed within 2 weeks), or an urgent ultrasound scan if CT is not available [1.2.5]
Nausea or vomiting with raised platelet count or weight loss or reflux or dyspepsia or upper abdominal pain, 55 and over	Oesophageal or stomach	Consider non-urgent direct access upper gastrointestinal endoscopy [1.2.3][1.2.9]

Rectal examination findings

Symptom and signs	Possible cancer	Recommendation
Prostate feels malignanton digital rectal examination, in men	Prostate	Refer men using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.1]
Anal mass or anal ulceration (unexplained)	Anal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.5]
Rectal mass	Colorectal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.2]

Reflux

Symptom and specific features	Possible cancer	Recommendation
Reflux with weight loss, 55 and over	Oesophageal or stomach	Offer urgent direct access upper gastrointestinal endoscopy (to be performed within 2 weeks) [1.2.1] [1.2.7]
Reflux with raised platelet count or nausea or vomiting, 55 and over	Oesophageal or stomach	Consider non-urgent direct access upper gastrointestinal endoscopy [1.2.3] [1.2.9]

Bleeding

See also:

- Urological symptoms for haematuria
- Primary care investigations for faecal occult blood.

Bleeding, bruising or petechiae

Symptom and specific features	Possible cancer	Recommendation

Bruising, bleeding or petechiae (unexplained)	Leukaemia	Consider a very urgent full blood count (within 48 hours) [1.10.1]

Haematemesis

Symptom and specific features	Possible cancer	Recommendation
Haematemesis	Oesophageal or stomach	Consider non-urgent direct access upper gastrointestinal endoscopy [1.2.2] [1.2.8]

Haemoptysis

Symptom and specific features	Possible cancer	Recommendation
Haemoptysis (unexplained), 40 and over	Lung	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.1.1]

Post-menopausal bleeding

Symptom and specific features	Possible cancer	Recommendation
Post-menopausal bleeding[1] in women 55 and over	Endometrial	Refer women using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.5.10]
Post-menopausal bleeding[1] in women under 55	Endometrial	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.5.11]
[1]Unexplained vaginal bleeding more than 12 months after menstruation has stopped because of the menopause.		

Rectal bleeding

Symptom and specific features	Possible cancer	Recommendation

Rectal bleeding (unexplained), 50 and over	Colorectal	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.1]
Rectal bleeding with abdominal pain or change in bowel habit or weight loss or iron-deficiency anaemia in adults under 50	Colorectal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.3]

Vulval bleeding

Symptom and specific features	Possible cancer	Recommendation
Vulval bleeding (unexplained) in women	Vulval	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.5.14]

Gynaecological symptoms

See also bleeding for post-menopausal (vaginal) bleeding

Gynaecological examination findings

Symptom and signs	Possible cancer	Recommendation
Appearance of cervix consistent with **cervical cancer**	Cervical	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.5.13]

Vaginal symptoms

Symptom and specific features	Possible cancer	Recommendation
Vaginal discharge (unexplained) either at first presentation or with thrombocytosis or with haematuria, in women 55 and over	Endometrial	Consider a direct access ultrasound scan [1.5.12]

Vaginal mass (unexplained and palpable) in or at the entrance to the vagina	Vaginal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.5.15]

Vulval symptoms

Symptom and specific features	Possible cancer	Recommendation
Vulval bleeding (unexplained)	Vulval	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.5.14]
Vulval lump or ulceration (unexplained)	Vulval	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.5.14]

Lumps or masses

See also abdominal symptoms for abdominal, anal, pelvic and rectal lumps or masses.

Lumps and masses

Symptom and specific features	Possible cancer	Recommendation
Anal mass (unexplained)	Anal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.5]
Axillary lump (unexplained), 30 and over	Breast	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.4.2]
Breast lump (unexplained) with or without pain, 30 and over	Breast	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.4.1]
Breast lump (unexplained) with or without pain, under 30	Breast	Consider non-urgent referral See also recommendations 1.16.2 and 1.16.3 for information about seeking specialist advice [1.4.3]

Lip or oral cavity lump	Oral	Consider an urgent referral (for an appointment within 2 weeks) for assessment by a dentist [1.8.3] Consider a suspected cancer pathway referral by the dentist (for an appointment within 2 weeks) in people when assessed by a dentist as having a lump on the lip or in the oral cavity consistent with oral cancer [1.8.4]
Lump (unexplained) that is increasing in size in adults	Soft tissue sarcoma	Consider an urgent direct access ultrasound scan (to be performed within 2 weeks) [1.11.4]
Neck lump (unexplained), 45 and over	Laryngeal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.8.1]
Neck lump (persistent and unexplained)	Oral	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.8.2]
Penile mass (and sexually transmitted infection has been excluded as a cause) in men	Penile	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.9]
Thyroid lump (unexplained)	Thyroid	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.8.5]
Vaginal mass (unexplained and palpable) in or at the entrance to the vagina in women	Vaginal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.5.15]
Vulval lump (unexplained) in women	Vulval	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.5.14]

[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.

Lymphadenopathy

Symptom and specific features	Possible cancer	Recommendation
Lymphadenopathy (unexplained) in adults	Non-Hodgkin's lymphoma or Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) When considering referral for Hodgkin's lymphoma, take into account any associated symptoms, particularly fever, night sweats, shortness of breath, pruritus, weight loss or alcohol-induced lymph node pain [1.10.10] When considering referral for non-Hodgkin's lymphoma, take into account any associated symptoms, particularly fever, night sweats, shortness of breath, pruritus or weight loss [1.10.8]
Lymphadenopathy (supraclavicular or persistent cervical), 40 and over	Lung	Consider an urgent chest X-ray (to be performed within 2 weeks) [1.1.3]
Lymphadenopathy (generalised) in adults	Leukaemia	Consider a very urgent full blood count (within 48 hours) [1.10.1]
[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.		

Oral lesions

Symptom and specific features	Possible cancer	Recommendation
Ulceration in the oral cavity (unexplained and lasting for more than 3 weeks)	Oral	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.8.2]

Lip or oral cavity lump	Oral	Consider an urgent referral (for an appointment within 2 weeks) for assessment by a dentist [1.8.3] Consider a suspected cancer pathway referral by the dentist (for an appointment within 2 weeks) in people when assessed by a dentist as having a lump on the lip or in the oral cavity consistent with oral cancer [1.8.4]

Neurological symptoms in adults

Symptom and specific features	Possible cancer	Recommendation
Loss of central neurological function (progressive, sub-acute) in adults	Brain or central nervous system	Consider an urgent direct access MRI scan of the brain (or CT scan if MRI is contraindicated) (to be performed within 2 weeks) [1.9.1]

Pain

See also abdominal symptoms for abdominal or pelvic pain.

Symptom and specific features	Possible cancer	Recommendation
Alcohol-induced lymph node pain with unexplained lymphadenopathy in adults[1]	Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms [1.10.10]
Back pain with weight loss, 60 and over	Pancreatic	Consider an urgent direct access CT scan (to be performed within 2 weeks), or an urgent ultrasound scan if CT is not available[1.2.5]

Back pain (persistent), 60 and over	Myeloma	Offer a full blood count, blood tests for calcium and plasma viscosity or erythrocyte sedimentation rate [1.10.4] See primary care investigations for more information on tests for myeloma
Bone pain (persistent), 60 and over	Myeloma	Offer a full blood count, blood tests for calcium and plasma viscosity or erythrocyte sedimentation rate to assess for myeloma [1.10.4] See primary care investigations for more information on tests for myeloma
Chest pain (unexplained), 40 and over, ever smoked	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
Chest pain (unexplained), 40 and over, exposed to asbestos	Mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.5]
Chest pain (unexplained) with cough or fatigue or shortness of breath or weight loss or appetite loss (unexplained), 40 and over	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.		

Respiratory symptoms

Chest infection

Symptom and specific features	Possible cancer	Recommendation
Chest infection (persistent or recurrent), 40 and over	Lung	Consider an urgent chest X-ray (to be performed within 2 weeks) [1.1.3]

Chest pain

Symptom and specific features	Possible cancer	Recommendation
Chest pain (unexplained), 40 and over, ever smoked	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
Chest pain (unexplained), 40 and over, exposed to asbestos	Mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.5]
Chest pain (unexplained) with cough or fatigue or shortness of breath or weight loss or appetite loss (unexplained), 40 and over	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]

Cough

Symptom and specific features	Possible cancer	Recommendation
Cough (unexplained), 40 and over, ever smoked	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
Cough (unexplained), 40 and over, exposed to asbestos	Mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.5]
Cough (unexplained) with fatigue or shortness of breath or chest pain or weight loss or appetite loss (unexplained), 40 and over	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]

Hoarseness

Symptom and specific features	Possible cancer	Recommendation
Hoarseness (persistent and unexplained), 45 and over	Laryngeal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.8.1]

Respiratory examination findings

Symptom and signs	Possible cancer	Recommendation
Chest signs consistent with **lung cancer**, 40 and over	Lung	Consider an urgent chest X-ray (to be performed within 2 weeks) [1.1.3]
Chest signs compatible with pleural disease, 40 and over	Mesothelioma	Consider an urgent chest X-ray (to be performed within 2 weeks) [1.1.6]
Finger clubbing, 40 and over	Lung or mesothelioma	Consider an urgent chest X-ray (to be performed within 2 weeks) [1.1.3] [1.1.6]

Shortness of breath

Symptom and specific features	Possible cancer	Recommendation
Shortness of breath (unexplained), 40 and over, ever smoked	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
Shortness of breath (unexplained), 40 and over, and exposed to asbestos	Mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.5]
Shortness of breath with cough or fatigue or chest pain or weight loss or appetite loss (unexplained), 40 and over	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
Shortness of breath with unexplained lymphadenopathy in adults	Non-Hodgkin's lymphoma or Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms [1.10.8]
Shortness of breath with unexplained splenomegaly in adults[1]	Non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms [1.10.8]

[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.

Skeletal symptoms

Back pain

Symptom and specific features	Possible cancer	Recommendation
Back pain with weight loss, 60 and over	Pancreatic	Consider an urgent direct access CT scan (to be performed within 2 weeks), or an urgent ultrasound scan if CT is not available[1.2.5]
Back pain (persistent), 60 and over	Myeloma	Offer a full blood count, blood tests for calcium and plasma viscosity or erythrocyte sedimentation rate [1.10.4] See primary care investigations for more information on tests for myeloma

Bone pain

Symptom and specific features	Possible cancer	Recommendation
Bone pain (persistent), 60 and over	Myeloma	Offer a full blood count, blood tests for calcium and plasma viscosity or erythrocyte sedimentation rate to assess for myeloma [1.10.4] See primary care investigations for more information on tests for myeloma

Fracture

Symptom and specific features	Possible cancer	Recommendation

Fracture (unexplained), 60 and over	Myeloma	Offer a full blood count, blood tests for calcium and plasma viscosity or erythrocyte sedimentation rate [1.10.4] See primary care investigations for more information on tests for myeloma

Skin or surface symptoms

See also lumps or masses for oral lesions.

Symptoms and signs	Possible cancer	Recommendation
Anal ulceration (unexplained)	Anal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.5]
Bruising (unexplained) in adults	Leukaemia	Consider a very urgent full blood count (within 48 hours) [1.10.1]
Nipple changes of concern (in one nipple only) including discharge and retraction, 50 and over	Breast	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.4.1]
Oral cavity red or red and white patch erythroplakia or erythroleukoplakiaconsistent with	Oral	Consider urgent referral (for an appointment within 2 weeks) for assessment by a dentist [1.8.3] Consider a suspected cancer pathway referral by the dentist (for an appointment within 2 weeks) for people when assessed by a dentist as having a red or red and white patch in the oral cavity consistent with erythroplakia or erythroleukoplakia. [1.8.4]
Pallor	Leukaemia	Consider a very urgent full blood count (within 48 hours) [1.10.1]

Penile lesion (ulcerated and sexually transmitted infection has been excluded or persistent after treatment for a sexually transmitted infection has been completed) in men	Penile	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.9]
Penile mass (and sexually transmitted infection has been excluded as a cause) in men	Penile	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.9]
Penile symptoms affecting the foreskin or glans (unexplained or persistent) in men	Penile	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.10]
Petechiae (unexplained) in adults	Leukaemia	Consider a very urgent full blood count (within 48 hours) [1.10.1]
Pruritus with unexplained splenomegaly in adults	Non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms[1.10.8]
Pruritus with unexplained lymphadenopathy in adults	Hodgkin's lymphoma or non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms [1.10.10]
Skin changes that suggest breast cancer	Breast	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.4.2]
Skin lesion (pigmented and suspicious) with a weighted 7-point checklist score of 3 or more	Melanoma	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.7.1]
Skin lesion (pigmented or non-pigmented) that suggests nodular melanoma	Melanoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.7.3]

Skin lesion that raises the suspicion of a squamous cell carcinoma	Squamous cell carcinoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.7.4]
Skin lesion that raises the suspicion of a basal cell carcinoma[2]	Basal cell carcinoma	Consider routine referral [1.7.5] Only consider a suspected cancer pathway referral (for an appointment within 2 weeks) if there is particular concern that a delay may have a significant impact, because of factors such as lesion site or size [1.7.6]
Vulval lump or ulceration (unexplained) in women	Vulval	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.5.14]
[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements. [2]Typical features of basal cell carcinoma include: an ulcer with a raised rolled edge; prominent fine blood vessels around a lesion; or a nodule on the skin (particularly pearly or waxy nodules).		

Urological symptoms

Dysuria

Symptom and specific features	Possible cancer	Recommendation
Dysuria with unexplained non-visible haematuria, 60 and over	Bladder	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.4]

Erectile dysfunction

Symptom and specific features	Possible cancer	Recommendation

Erectile dysfunction in men	Prostate	Consider a prostate-specific antigen (PSA) test and digital rectal examination [1.6.2] See primary care investigations for more information on PSA tests and digital rectal examination

Haematuria

Symptom and specific features	Possible cancer	Recommendation
Haematuria (visible and unexplained) either without urinary tract infection or that persists or recurs after successful treatment of urinary tract infection, 45 and over	Bladder or renal	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.4] [1.6.6]
Haematuria (non-visible and unexplained) with dysuria or raised white cell count on a blood test, 60 and over	Bladder	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.4]
Haematuria (visible) with low haemoglobin levels or thrombocytosis or high blood glucose levels or unexplained vaginal discharge in women 55 and over	Endometrial	Consider a direct access ultrasound scan [1.5.12]
Haematuria (visible) in men	Prostate	Consider a prostate-specific antigen (PSA) test and digital rectal examination [1.6.2] See primary care investigations for more information on PSA tests and digital rectal examination

Testicular symptoms

Symptom and specific features	Possible cancer	Recommendation

Testis enlargement or change in shape or texture (non-painful) in men	Testicular	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.7]
Testicular symptoms (unexplained or persistent), men	Testicular	Consider a direct access ultrasound scan [1.6.8]

Other urinary tract symptoms

Symptom and specific features	Possible cancer	Recommendation
Urinary tract infection (unexplained and recurrent or persistent), 60 and over	Bladder	Consider non-urgent referral for bladder cancer in people aged 60 and over with recurrent or persistent unexplained urinary tract infection [1.6.5]
Lower urinary tract symptoms, such as nocturia, urinary frequency, hesitancy, urgency or retention in men	Prostate	Consider a prostate-specific antigen (PSA) test and digital rectal examination [1.6.2] See primary care investigations for more information on PSA tests and digital rectal examination
Urinary urgency and/or frequency (increased and persistent or frequent – particularly more than 12 times per month) in women, especially if 50 and over	Ovarian	Carry out tests in primary care[1] [1.5.2] Measure serum CA125 in primary care[1] [1.5.6] See primary care investigations for information on tests for ovarian cancer
[1]The recommendations for ovarian cancer apply to women aged 18 and over.		

Non-specific features of cancer

Appetite loss or early satiety

Symptom and specific features	Possible cancer	Recommendation

Appetite loss (unexplained)	Several, including lung, oesophageal, stomach, colorectal, pancreatic, bladder or renal	Carry out an assessment for additional symptoms, signs or findings that may help to clarify which cancer is most likely Offer urgent investigation or a suspected cancer pathway referral (for an appointment within 2 weeks) [1.13.3]
Appetite loss (unexplained), 40 and over, ever smoked	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
Appetite loss (unexplained), 40 and over, exposed to asbestos	Mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.5]
Appetite loss (unexplained) with cough or fatigue or shortness of breath or chest pain or weight loss (unexplained), 40 and over	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
Appetite loss or early satiety (persistent or frequent – particularly more than 12 times per month) in women, especially if 50 and over	Ovarian	Carry out tests in primary care[1] [1.5.2] Measure serum CA125 in primary care[1] [1.5.6] See primary care investigations for information on tests for ovarian cancer
[1]The recommendations for ovarian cancer apply to women aged 18 and over.		

Deep vein thrombosis

Symptom and specific features	Possible cancer	Recommendation

Deep vein thrombosis	Several, including urogenital, breast, colorectal or lung	Carry out an assessment for additional symptoms, signs or findings that may help to clarify which cancer is most likely Consider urgent investigation or a suspected cancer pathway referral (for an appointment within 2 weeks) [1.13.4]

Diabetes

Symptom and specific features	Possible cancer	Recommendation
Diabetes (new onset) with weight loss, 60 and over	Pancreatic	Consider an urgent direct access CT scan (to be performed within 2 weeks), or urgent ultrasound scan if CT is not available[1.2.5]

Fatigue

Symptom and specific features	Possible cancer	Recommendation
Fatigue (unexplained), 40 and over, ever smoked	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
Fatigue (unexplained), 40 and over, exposed to asbestos	Mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.5]
Fatigue with cough or shortness of breath or chest pain or weight loss or appetite loss (unexplained), 40 and over	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
Fatigue (persistent) in adults	Leukaemia	Consider a very urgent full blood count (within 48 hours) [1.10.1]

Fatigue (unexplained) in women	Ovarian	Carry out tests in primary care[1] [1.5.2] Measure serum CA125 in primary care[1] [1.5.6] See primary care investigations for information on tests for ovarian cancer
[1]The recommendations for ovarian cancer apply to women aged 18 and over.		

Fever

See also respiratory symptoms for chest infection.

Symptom and specific features	Possible cancer	Recommendation
Fever (unexplained)	Leukaemia	Consider a very urgent full blood count (within 48 hours) [1.10.1]
Fever with unexplained splenomegaly in adults	Non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms [1.10.8]
Fever with unexplained lymphadenopathy in adults	Hodgkin's lymphoma or non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms [1.10.10]
[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.		

Infection

Symptom and specific features	Possible cancer	Recommendation

Infection (unexplained and persistent or recurrent) in adults	Leukaemia	Consider a very urgent full blood count (within 48 hours) [1.10.1]

Night sweats

Symptom and specific features	Possible cancer	Recommendation
Night sweats with unexplained splenomegaly in adults	Non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms[1.10.8]
Night sweats with unexplained lymphadenopathy in adults	Hodgkin's lymphoma or Non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms [1.10.10]
[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.		

Pallor

Symptom and specific features	Possible cancer	Recommendation
Pallor	Leukaemia	Consider a very urgent full blood count (within 48 hours) [1.10.1]

Pruritus

Symptom and specific features	Possible cancer	Recommendation
Pruritus with unexplained splenomegaly in adults	Non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms[1.10.8]

Pruritus with unexplained lymphadenopathy in adults	Hodgkin's lymphoma or non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms [1.10.10]
[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.		

Weight loss

Symptom and specific features	Possible cancer	Recommendation
Weight loss (unexplained)	Several, including colorectal, gastro-oesophageal, lung, prostate, pancreatic or urological cancer	Carry out an assessment for additional symptoms, signs or findings that may help to clarify which cancer is most likely Offer urgent investigation or a suspected cancer pathway referral (for an appointment within 2 weeks) [1.13.2]
Weight loss (unexplained) with abdominal pain, 40 and over	Colorectal	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.1]
Weight loss (unexplained) with rectal bleeding in adults under 50	Colorectal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.3]
Weight loss (unexplained) without rectal bleeding, 50 and over	Colorectal	Offer testing for occult blood in faeces [1.3.4] See primary care investigations for more information on tests for occult blood in faeces

Weight loss (unexplained), 40 and over, ever smoked	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
Weight loss (unexplained), 40 and over, exposed to asbestos	Mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.5]
Weight loss with cough or fatigue or shortness of breath or chest pain or appetite loss (unexplained), 40 and over, never smoked	Lung or mesothelioma	Offer an urgent chest X-ray (to be performed within 2 weeks) [1.1.2] [1.1.5]
Weight loss with unexplained splenomegaly in adults[1]	Non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms [1.10.8]
Weight loss with unexplained lymphadenopathy in adults	Hodgkin's lymphoma or non-Hodgkin's lymphoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks). When considering referral, take into account any associated symptoms [1.10.8] [1.10.10]
Weight loss with upper abdominal pain or reflux or dyspepsia, 55 and over	Oesophageal or stomach	Offer urgent direct access upper gastrointestinal endoscopy (to be performed within 2 weeks) [1.2.1] [1.2.7]
Weight loss (unexplained) in women	Ovarian	Consider carrying out tests in primary care [1.5.3] Measure serum CA125 in primary care [1.5.6] See primary care investigations for information on tests for ovarian cancer

Weight loss with diarrhoea or back pain or abdominal pain or nausea or vomiting or constipation or new-onset diabetes, 60 and over	Pancreatic	Consider an urgent direct access CT scan (to be performed within 2 weeks), or an urgent ultrasound scan if CT is not available[1.2.5]
Weight loss with raised platelet count or nausea or vomiting, 55 and over	Oesophageal or stomach	Consider non-urgent direct access upper gastrointestinal endoscopy [1.2.3] [1.2.9]
[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements. [2]The recommendations for ovarian cancer apply to women aged 18 and over.		

Primary care investigations

Blood test findings

Investigation findings and specific features	Possible cancer	Recommendation
Anaemia (iron-deficiency), 60 and over	Colorectal	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.1]
Anaemia (iron-deficiency, unexplained) with rectal bleeding in adults under 50	Colorectal	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.3]
Anaemia (iron-deficiency) without rectal bleeding in adults under 60	Colorectal	Offer testing for occult blood in faeces [1.3.4]
Anaemia (even in the absence of iron-deficiency) without rectal bleeding, 60 and over	Colorectal	Offer testing for occult blood in faeces [1.3.4]
Blood glucose levels high with visible haematuria in women 55 and over	Endometrial	Consider a direct access ultrasound scan [1.5.12]

Diabetes (new-onset) with weight loss, 60 and over	Pancreatic	Consider an urgent direct access CT scan (to be performed within 2 weeks), or an urgent ultrasound scan if CT is not available[1.2.5]
Haemoglobin levels low with visible haematuria in women 55 and over	Endometrial	Consider a direct access ultrasound scan [1.5.12]
Haemoglobin levels low with upper abdominal pain, 55 and over	Oesophageal or stomach	Consider non-urgent direct access upper gastrointestinal endoscopy [1.2.3] [1.2.9]
Hypercalcaemia or leukopenia and presentation consistent with possible myeloma, 60 and over	Myeloma	Offer very urgent protein electrophoresis and a Bence-Jones protein urine test (within 48 hours) [1.10.5]
Plasma viscosity or erythrocyte sedimentation rate and presentation consistent with possible myeloma	Myeloma	Consider very urgent protein electrophoresis and a Bence-Jones protein urine test (within 48 hours) [1.10.6]
Platelet count raised with nausea or vomiting or weight loss or reflux or dyspepsia or upper abdominal pain, 55 and over	Oesophageal or stomach	Consider non-urgent direct access upper gastrointestinal endoscopy [1.2.3] [1.2.9]
Prostate-specific antigen levels above the age-specific reference range	Prostate	Refer men using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.3]
Protein electrophoresis suggests myeloma	Myeloma	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.10.7]

Serum CA125results	Ovarian	If serum CA125 is 35 IU/ml or greater, arrange an ultrasound scan of the abdomen and pelvis [1.5.7] Normal serum CA125 (less than 35 IU/ml), or CA125 of 35 IU/ml or greater but a normal ultrasound: • assess her carefully for other clinical causes of her symptoms and investigate if appropriate • if no other clinical cause is apparent, advise her to return to her GP if her symptoms become more frequent and/or persistent. [1.5.9]
Thrombocytosis, 40 and over	Lung	Consider an urgent chest X-ray (to be performed within 2 weeks) [1.1.3]
Thrombocytosis with visible haematuria or vaginal discharge (unexplained) in women 55 and over	Endometrial	Consider a direct access ultrasound scan [1.5.12]
White cell count raised on a blood test with unexplained non-visible haematuria, 60 and over	Bladder	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.4]
[1]The recommendations for ovarian cancer apply to women aged 18 and over.		

Dermoscopy findings

Investigation findings and specific features	Possible cancer	Recommendation
Dermoscopy suggests melanoma of the skin	Melanoma	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.7.2]

Digital rectal examination findings

Examination findings and specific features	Possible cancer	Recommendation

Prostate feels malignant on digital rectal examination	Prostate	Refer men using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.6.1]

Faecal tests

Investigation findings and specific features	Possible cancer	Recommendation
Occult blood in faeces	Colorectal	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.3.1]

Imaging tests

Investigation findings and specific features	Possible cancer	Recommendation
Chest X-ray suggests lung cancer	Lung	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.1.1]
Chest X-ray suggests mesothelioma	Mesothelioma	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.1.4]
Ultrasound suggests ovarian cancer	Ovarian	Refer urgently for further investigation [1.5.8]
Ultrasoundnormal with CA125 of 35 IU/ml or greater	Ovarian	Assess carefully for other clinical causes of her symptoms and investigate if appropriate If no other clinical cause is apparent, advise her to return to her GP if her symptoms become more frequent and/or persistent [1.5.9]
Ultrasound suggests soft tissue sarcoma or is uncertain and clinical concern persists in adults[3]	Soft tissue sarcoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.11.5]

X-ray suggests the possibility of bone sarcoma in adults[3]	Bone sarcoma	Consider a suspected cancer pathway referral (for an appointment within 2 weeks) [1.11.1]

[1]An urgent referral means that the woman is referred to a gynaecological cancer service within the national target in England and Wales for referral for suspected cancer, which is currently 2 weeks.

[2]The recommendations for ovarian cancer apply to women aged 18 and over.

[3]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.

Jaundice

Investigation findings and specific features	Possible cancer	Recommendation
Jaundice, 40 and over	Pancreatic	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.2.4]

Urine test findings

Investigation findings and specific features	Possible cancer	Recommendation
Bence-Jones protein urine results suggest myeloma	Myeloma	Refer people using a suspected cancer pathway referral (for an appointment within 2 weeks) [1.10.7]

Symptoms in children and young people

Abdominal symptoms

Symptom and specific features	Possible cancer	Recommendation

Hepatosplenomegaly (unexplained) in children and young people	Leukaemia	Refer for immediate specialist assessment [1.10.2]
Abdominal mass (palpable) **orenlarged abdominalorgan** (unexplained) in children	Neuroblastoma or Wilms' tumour	Consider very urgent referral (for an appointment within 48 hours) for specialist assessment [1.12.1] [1.12.3]
Splenomegaly (unexplained) in children and young people[1]	Non-Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms, particularly fever, night sweats, shortness of breath, pruritus or weight loss [1.10.9]
[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.		

Bleeding, bruising or rashes

Symptom and specific features	Possible cancer	Recommendation
Petechiae (unexplained) in children and young people	Leukaemia	Refer for immediate specialist assessment [1.10.2]
Bleeding or bruising (unexplained) in children and young people	Leukaemia	Offer a very urgent full blood count (within 48 hours) [1.10.3]

Lumps or masses

See also abdominal symptoms for abdominal mass or unexplained enlarged abdominal organ, splenomegaly and hepatosplenomegaly.

Symptom and specific features	Possible cancer	Recommendation
Lymphadenopathy (unexplained) in children and young people[1]	Non-Hodgkin's lymphoma or Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms, particularly fever, night sweats, shortness of breath, pruritus or weight loss [1.10.9] [1.10.11]
Lymphadenopathy (generalised) in children and young people	Leukaemia	Offer a very urgent full blood count (within 48 hours) [1.10.3]
Lump (unexplained) that is increasing in size in children and young people[1]	Soft tissue sarcoma	Consider a very urgent direct access ultrasound scan (to be performed within 48 hours) [1.11.6] See primary care investigations for more information on ultrasound scans
[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.		

Neurological symptoms

Symptom and specific features	Possible cancer	Recommendation
Newly abnormal cerebellar or other central neurological function in children and young people	Brain or central nervous system cancer	Consider a very urgent referral (for an appointment within 48 hours) [1.9.2]

Respiratory symptoms

Symptom and specific features	Possible cancer	Recommendation

Shortness of breath with lymphadenopathy in children and young people[1]	Non-Hodgkin's lymphoma or Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms [1.10.9] [1.10.11]
Shortness of breath with splenomegaly (unexplained) in children and young people[1]	Non-Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms [1.10.9]
[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.		

Skeletal symptoms

Symptom and specific features	Possible cancer	Recommendation
Bone pain (persistent or unexplained) in children and young people	Leukaemia	Offer a very urgent full blood count (within 48 hours) [1.10.3]
Bone pain (unexplained) in children and young people	Bone sarcoma	Consider a very urgent direct access X-ray (to be performed within 48 hours) [1.11.3] See primary care investigations for more information on X-rays
Bone swelling (unexplained) in children and young people	Bone sarcoma	Consider a very urgent direct access X-ray (to be performed within 48 hours) [1.11.3] See primary care investigations for more information on X-rays

Skin or surface symptoms

Symptom and specific features	Possible cancer	Recommendation

Petechiae (unexplained) in children and young people	Leukaemia	Refer for immediate specialist assessment [1.10.2]
Bruising (unexplained) in children and young people	Leukaemia	Offer a very urgent full blood count (within 48 hours) [1.10.3]
Pallor in children and young people	Leukaemia	Offer a very urgent full blood count (within 48 hours) [1.10.3]

Urological symptoms

Symptom and specific features	Possible cancer	Recommendation
Haematuria (visible and unexplained) in children	Wilms' tumour	Consider very urgent referral (for an appointment within 48 hours) for specialist assessment [1.12.3]

Non-specific features of cancer

Symptom and specific features	Possible cancer	Recommendation
Fatigue (persistent) in children and young people	Leukaemia	Offer a very urgent full blood count (within 48 hours) [1.10.3]
Fever with lymphadenopathy (unexplained) in children and young people[1]	Non-Hodgkin's lymphoma or Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms [1.10.9] [1.10.11]
Fever with splenomegaly (unexplained) in children and young people[1]	Non-Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms [1.10.9]
Fever (unexplained) in children and young people	Leukaemia	Offer a very urgent full blood count (within 48 hours) [1.10.3]
Infection (unexplained and persistent) in children and young people	Leukaemia	Offer a very urgent full blood count (within 48 hours) [1.10.3]

Lymphadenopathy (unexplained) in children and young people[1]	Non-Hodgkin's lymphoma or Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms, particularly fever, night sweats, shortness of breath, pruritus or weight loss[1.10.9] [1.10.11]
Lymphadenopathy (generalised) in children and young people	Leukaemia	Offer a very urgent full blood count (within 48 hours) [1.10.3]
Night sweats with lymphadenopathy (unexplained) in children and young people[1]	Non-Hodgkin's lymphoma or Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms [1.10.9] [1.10.11]
Night sweats with splenomegaly (unexplained) in children and young people	Non-Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms [1.10.9]
Pruritus with lymphadenopathy (unexplained) in children and young people[1]	Non-Hodgkin's lymphoma or Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms [1.10.9] [1.10.11]
Pruritus with splenomegaly(unexplained) in children and young people[1]	Non-Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms[1.10.9]
Weight loss with lymphadenopathy (unexplained) in children and young people[1]	Non-Hodgkin's lymphoma or Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment in children and young people. When considering referral, take into account any associated symptoms [1.10.9] [1.10.11]

Weight loss with splenomegaly (unexplained) in children and young people[1]	Non-Hodgkin's lymphoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment. When considering referral, take into account any associated symptoms[1.10.9]
[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.		

Parental concern

Symptom and specific features	Possible cancer	Recommendation
Parental or carer insight, concern or anxiety about the child's or young person's symptoms (persistent)	Childhood cancer	Take into account the insight and knowledge of parents and carers when considering making a referral for suspected cancer in a child or young person Consider referral for children if their parent or carer has persistent concern or anxiety about the child's symptoms, even if the symptoms are most likely to have a benign cause [1.13.1]

Primary care investigations

Symptom and specific features	Possible cancer	Recommendation
Ultrasound scan suggests soft tissue sarcoma or is uncertain and clinical concern persists in children and young people[1]	Soft tissue sarcoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment [1.11.7]
X-ray suggests the possibility of bone sarcoma in children and young people[1]	Bone sarcoma	Consider a very urgent referral (for an appointment within 48 hours) for specialist assessment [1.11.2]

[1]Separate recommendations have been made for adults and for children and young people to reflect that there are different referral pathways. However, in practice young people (aged 16–24) may be referred using either an adult or children's pathway depending on their age and local arrangements.

Ocular examination

Examination findings and specific features	Possible cancer	Recommendation
Absent red reflex in children	Retinoblastoma	Consider urgent referral (for an appointment within 2 weeks) for ophthalmological assessment [1.12.2]

2 Research recommendations

The Guideline Development Group has made the following recommendations for research, based on its review of evidence, to improve NICE guidance and patient care in the future.

2.1 Age thresholds in cancer

Longitudinal studies should be carried out to identify and quantify factors in adults that are associated with development of specific cancers at a younger age than the norm. They should be designed to inform age thresholds in clinical guidance. The primary outcome should be likelihood ratios and positive predictive values for cancer occurring in younger age groups.

Why this is important

It is recognised that several factors, such as deprivation and comorbidity, may lead to development of cancer at a younger age. People with these factors could be disadvantaged by the use of age thresholds for referral for suspected cancer.

2.2 Primary care testing

Diagnostic accuracy studies of tests accessible to primary care should be carried out for a given cancer in symptomatic people. Priority areas for research should include tests for people with cough, non-visible haematuria, suspected prostate cancer, suspected pancreatic cancer, suspected cancer in childhood and young people and other suspected rare cancers. Outcomes of interest are the performance characteristics of the test, particularly sensitivity, specificity and positive and negative predictive values.

Why this is important

There is very little information currently available on the diagnostic accuracy of tests available in primary care for people with suspected cancer. These studies will inform clinicians on the choice of investigation for symptomatic patients.

2.3 Cancers insufficiently researched in primary care

Observational studies of symptomatic primary care patients should be used to estimate the positive predictive value of different symptoms for specific cancers. Priority areas for research are those where the evidence base is currently insufficient and should include prostate cancer,

pancreatic cancer, cancer in childhood and young people and other rare cancers. Outcomes of interest are positive predictive values and likelihood ratios for cancer.

Why this is important

For several cancer sites, the primary care evidence base on the predictive value of symptoms is thin or non-existent. Filling this gap should improve future clinical guidance.

2.4 Patient experience

Qualitative studies are needed to assess the key issues in patient experience and patient information needs in the cancer diagnostic pathway, particularly in the interval between first presentation to primary care and first appointment in secondary care. Outcomes of interest are patient satisfaction, quality of life and patient perception of the quality of care and information.

Why this is important

There was very little information on both patient information needs and patient experience throughout the cancer diagnostic pathway. Filling this gap should improve future patient experience.

3 Other information

3.1 Scope and how this guideline was developed

NICE guidelines are developed in accordance with a scope that defines what the guideline will and will not cover.

Groups that will be covered

- Children (from birth to 15 years), young adults (aged 16–24 years) and adults (aged 25 years and over) presenting to primary care with signs or symptoms of suspected cancer.
- Subgroups that are identified as needing specific consideration will be considered during development but may include:
  - older people
  - people with cognitive impairment
  - people with multiple morbidities
  - people from lower socioeconomic groups.

Groups that will not be covered

- People who have been referred to secondary care for specialist management.
- People who present for the first time outside of the primary care setting.

How this guideline was developed

NICE commissioned the National Collaborating Centre for Cancer to develop this guideline. The Centre established a Guideline Development Group (see section 4), which reviewed the evidence and developed the recommendations.

The methods and processes for developing NICE clinical guidelines are described on the NICE website.

3.2 Related NICE guidance

Details are correct at the time of consultation on the guideline (November 2014). Further information is available on the NICE website.

Published

General

- Patient experience in adult NHS services (2012) NICE guidance CG138

Condition-specific

- Bladder cancer (2015) NICE guideline NG2
- Prostate cancer (2014) NICE guideline CG175
- Colorectal cancer (2014) NICE guideline CG131
- Advanced breast cancer (2014) NICE guideline CG81
- Familial breast cancer (2013) NICE guideline CG164
- Ovarian cancer (2012) NICE quality standard 18
- Lung cancer (2012) NICE quality standard 17
- Neutropenic sepsis (2012) NICE guideline CG151
- Breast cancer (2011) NICE quality standard 12
- Ovarian cancer (2011) NICE guideline CG122
- Colonoscopic surveillance for prevention of colorectal cancer in people with ulcerative colitis, Crohn's disease or adenomas (2011) NICE guideline CG118
- Metastatic malignant disease of unknown primary origin (2010) NICE guideline CG104
- Lower urinary tract symptoms (2010) NICE guideline CG97
- Improving outcomes for people with skin tumours including melanoma (2010) NICE cancer service guidance
- Early and locally advanced breast cancer (2009) NICE guideline CG80
- Metastatic spinal cord compression (2008) NICE guideline CG75
- Improving outcomes for people with brain and other CNS tumours (2006) NICE cancer service guidance

- Improving outcomes for people with sarcoma (2006) NICE cancer service guidance
- Improving outcomes in children and young people with cancer (2005) NICE cancer service guidance
- Improving supportive and palliative care for adults with cancer (2004) NICE cancer service guidance
- Improving outcomes in head and neck cancers (2004) NICE cancer service guidance
- Improving outcomes in colorectal cancer (2004) NICE cancer service guidance
- Improving outcomes in haematological cancers (2003) NICE cancer service guidance
- Improving outcomes in urological cancers (2002) NICE cancer service guidance
- Improving outcomes in breast cancer (2002) NICE cancer service guidance

Under development

NICE is developing the following guidance:

- Melanoma. NICE guideline. Publication expected July 2015
- Myeloma. NICE guideline. Publication expected February 2016
- Upper aerodigestive tract cancer. NICE guideline. Publication expected February 2016
- Non-Hodgkin's lymphoma. NICE guideline. Publication expected July 2016

4 The Guideline Development Group, National Collaborating Centre and NICE project team, and declarations of interests

4.1 Guideline Development Group

The Guideline Development Group members listed are those for the 2015 update. For the composition of the previous Guideline Development Groups, see the full guideline.

Susan Ballard
Patient and carer member (June 2012–March 2013)

Nicki Doherty
Lead Cancer Manager Rotherham NHS Foundation Trust (January 2012–June 2013), General Manager, Barnsley NHS Foundation Trust (November 2013–present)

Jeanne Fay
GP, Oxford

Steve Hajioff
GDG Chair (September 2013–present), Consultant in Public Health Medicine, London

Willie Hamilton
GDG Clinical Lead, Professor of Primary Care Diagnostics, University of Exeter

Susan Hay
Patient and carer member

Georgios (Yoryos) Lyratzopoulos
Senior Clinical Research Associate/Honorary Consultant in Public Health, Department of Public Health and Primary Care, University of Cambridge

David Martin
Patient and carer member

Joan Meakins
GP, York

Orest Mulka
GDG Chair (January 2012–June 2013), Retired GP, Derbyshire

Richard Osborne
GDG Chair (23 and 24 July 2013 meeting), Consultant Medical Oncologist, Dorset Cancer Centre

Euan Paterson
GP, Glasgow

Liliana Risi
GP, London

Karen Sennett
GP, London

Lindsay Smith
GP, Somerset

Stuart Williams
Consultant Radiologist, Norfolk & Norwich University Hospital

4.2 National Collaborating Centre for Cancer

John Graham
Director

Andrew Champion
Centre Manager

Angela Bennett
Assistant Centre Manager

Katrina Asquith-Coe
Project Manager

Nathan Bromham
Senior Researcher

Mia Schmidt-Hansen
Researcher

Susan O'Connell
Researcher

Laura Bunting
Researcher

David Jarrom
Researcher

Sabine Berendse
Information Specialist

Delyth Morris
Information Specialist

Matthew Prettyjohns
Senior Health Economist

Victoria Kelly
Health Economist

4.3 NICE project team

Christine Carson
Guideline Lead

Martin Allaby
Clinical Adviser

Katie Perryman-Ford
Guideline Commissioning Manager

Jennifer Watson-Henry
Guideline Coordinator

Beth Shaw
Technical Lead

Bhash Naidoo
Health Economist

Catharine Baden-Daintree
Editor

4.4 Declarations of interests

The following members of the Guideline Development Group made declarations of interests. All other members of the Group stated that they had no interests to declare. The conflicts of interest policy (2007) was followed until September 2014, when an updated policy was published.

Member	Interest declared	Type of interest	Decision taken
Steve Hajioff	Medical director of a charity that promotes testicular self-examination in young men	Personal non-pecuniary	Declare and participate
Steve Hajioff	Member of NICE's accreditation advisory committee	Personal non-pecuniary	Declare and participate
Steve Hajioff	Appointed Medical Director for Totally PLC. Provider of shared decision-making resources and health coaching in Europe	Personal pecuniary	Declare and withdraw from discussion on topics regarding shared decision-making tools
Orest Mulka	Lecture at a Macmillan GP Conference on the scope of the guideline	Personal pecuniary	Declare and participate
Willie Hamilton	Chief Medical Officer for Exeter Friendly Society, LV and Friends Life. Assesses complex insurance applications and claims	Personal pecuniary	Declare and participate

Willie Hamilton	Research grant received from Macmillan to support research activities into pathways towards diagnosis for lung, colon and pancreatic cancers	Non-personal pecuniary	Declare and participate
Willie Hamilton	Research grant from CRUK: Continuity And Detection Of Cancer in Primary Care	Non-personal pecuniary	Declare and participate
Willie Hamilton	Research grant from RfPB: Long term outcome in giant cell arteritis	Non-personal pecuniary	Declare and participate
Willie Hamilton	Research grant from CRUK: Improved lung cancer identification by targeted chest X-ray (CXR) – a clinical trial looking at the effect on lung cancer diagnosis of giving a CXR to smokers aged over 60 with chest symptoms	Non-personal pecuniary	Declare and participate
Willie Hamilton	Funded by CRUK to undertake a systematic review of the risk of cancer posed by symptoms reported to primary care, for oesophagus, stomach, uterine and cervical cancers	Non-personal pecuniary	Declare and participate
Willie Hamilton	Research grant from CRUK: ColoRectal Early Diagnosis: Information Based Local Evaluation	Non-personal pecuniary	Declare and participate
Willie Hamilton	Policy Research Unit in Cancer awareness, screening and early diagnosis. Funded by the Department of Health	Non-personal pecuniary	Declare and participate
Willie Hamilton	NIHR Programme Grant: Optimising diagnosis of symptomatic cancer	Non-personal pecuniary	Declare and participate
Willie Hamilton	NIHR School for Primary Care Research. Using a participant-completed questionnaire to identify symptoms that predict lung cancer: a feasibility study	Non-personal pecuniary	Declare and participate

Willie Hamilton	NIHR HTA: The role of ultrasound compared to biopsy of temporal arteries in the diagnosis and treatment of giant cell arteritis	Non-personal pecuniary	Declare and participate
Willie Hamilton	GlaxoSmithKline shareholder	Personal pecuniary	Declare and participate as guideline is not investigating any interventions made by GSK
Willie Hamilton	Member and GP of the Cancer Diagnostic Advisory Board: re-design of GP access to diagnostics. Two of its subcommittees: Cancer Data Project Board - establish nationwide database of cancer diagnostic activity and help DoH write guidance for enhanced GP access to cancer diagnostic tests	Personal pecuniary	Declare and participate
Willie Hamilton	Published Risk Assessment Tools for lung, colon, ovary, prostate, pancreas, and brain. These are charts detailing the risk of cancer in symptomatic patients. The National Cancer Action Team has piloted the use of lung and colon tools, and has disseminated them widely within the English NHS. The tools have been provided free	Non-personal pecuniary	Declare and participate
Willie Hamilton	Commissioned by the BMJ to write an article on 'easily missed: colorectal cancer'	Personal, non-pecuniary	Declare and participate
Willie Hamilton	Research grant from Macmillan: metastatic cancer symptoms	Non-personal pecuniary	Declare and participate
Willie Hamilton	Research grant from CRUK: the use of risk assessment tools for suspected oesophago-gastric cancer	Non-personal pecuniary	Declare and participate

Willie Hamilton	Research grant from CRUK: researching symptom profiles of bowel disease in young people	Non-personal pecuniary	Declare and participate
Willie Hamilton	Research grant from CRUK: Breast cancer awareness measures	Non-personal pecuniary	Declare and participate
Willie Hamilton	Research grant from CRUK: creating a league table of cancers where symptomatic diagnosis is of value in terms of mortality	Non-personal pecuniary	Declare and participate
Willie Hamilton	Commissioned by the BMJ to write an article on 'diagnosis of bladder cancer in women'	Personal, non-pecuniary	Declare and participate
Willie Hamilton	Invited by the DoH to become a member of an evaluation team for the reconfiguration for delivery of cancer diagnostic services; named as a grant holder	Non-personal pecuniary	Declare and participate
Willie Hamilton	Awarded a grant by the DoH to look into cancer outcomes following primary care identification of thrombocytosis	Non-personal pecuniary	Declare and participate
Willie Hamilton	Consultancy with a German firm MedX, to provide information on diagnostic software (with a focus on abdominal pain, rather than cancer)	Personal pecuniary	Declare and participate as diagnostic software is not being investigated by the guideline
Susan Ballard	Received honorarium for being a member of the group creating peer review measures for hepatobiliary cancers	Personal pecuniary	Declare and participate as the guideline is not looking at service configuration for hepatobiliary cancers

Susan Ballard	Invited to provide editorial comment on the pancreatic measures during December 2012 as a member of the Peer Review Measures Group for HPC cancers	Personal pecuniary	Declare and participate as no comments were made on issues relating to the guideline
Nicki Doherty	None declared		
Jeanne Fay	Lead primary care physician in a NAEDI 4 bid investigating ovarian cancer recognition in the Milton Keynes area	Non-personal pecuniary	Declare and participate
Jeanne Fay	NAEDI project for GP practices to audit selected 2 week wait referrals and emergency cancer diagnoses	Non-personal pecuniary	Declare and participate
Susan Hay	Appointed chairman of the Neuroblastoma Society	Personal pecuniary	Declare and participate as recommendations for neuroblastoma had been agreed before this appointment
Susan Hay	Asked to join a Steering Group for a trial looking at bevacizumab and chemotherapy for children and young people with neuroblastoma	Personal non-pecuniary	Declare and participate
Georgios (Yoryos) Lyratzopolous	Research grant from CRUK: creating a league table of cancers where symptomatic diagnosis is of value in terms of mortality	Non-personal pecuniary	Declare and participate
Georgios (Yoryos) Lyratzopolous	Academic in the field of early diagnosis research. Postdoctoral fellowship by the NIHR on a related subject	Personal non-pecuniary	Declare and participate

Georgios (Yoryos) Lyratzopolous	Research grant from the National Awareness and Early Diagnosis Initiative 3rd funding call. "What is driving general practice variation in 'two-week wait' referrals and use of endoscopy and imaging investigations, and does it matter for cancer outcomes?"	Personal non-pecuniary	Declare and participate
Georgios (Yoryos) Lyratzopolous	Receiving funding from CRUK for a fellowship from March 2015	Non-personal pecuniary	Declare and participate
David Martin	Invited to work with the Royal Pharmaceutical Society to commission future models of care through pharmacy	Personal pecuniary	Declare and participate treatment is not being investigated by the guideline
David Martin	Invited to become a member of the evidence update group for CG138 Patient Experience for which he will receive an honorarium and expenses	Personal pecuniary	Declare and participate as the guideline will not be investigating generic patient experience
David Martin	Member of a steering group for research projects for HERG. Has been asked to give a presentation on 'Engagement and inclusivity in researching patients' experiences' at a symposium	Personal pecuniary	Declare and participate as the guideline will not be investigating generic patient experience
David Martin	Has been asked to join a Medicines Optimisation Reference Group	Personal pecuniary	Declare and participate as the guideline will not be investigating medicines optimisation

David Martin	Invited to give a presentation at the INVOLVE Conference on patient perspectives of engagement in research projects	Personal pecuniary	Declare and participate as the guideline will not be investigating generic patient experience
Joan Meakins	Locality lead for York PCG raising GP awareness of cancer using signs and symptoms. NAEDI initiative funded by DoH	Non-personal pecuniary	Declare and participate
Richard Osborne	Received educational grant from Roche to attend ASCO meeting, no specific drug or disease focus	Personal pecuniary	Declare and participate
Richard Osborne	Received an educational grant from Bristol Myers Squibb to attend World Melanoma Congress	Personal pecuniary	Declare and participate
Richard Osborne	Received an honorarium from Roche for attending an advisory panel on the drug Avastin in ovarian cancer	Personal pecuniary	Declare and participate as the guideline will not be investigating treatment of ovarian cancer
Richard Osborne	Received an honorarium from Pharmar for attending an advisory panel on the drug Trabectedin in ovarian cancer	Personal pecuniary	Declare and participate as the guideline will not be investigating treatment of ovarian cancer
Richard Osborne	Department received research contribution from Novartis. In return a Novartis pharmaceutical representative attended RJO's colon cancer clinic to gain a wider understanding of patient management. The visit was organised by RJO and did not cover drugs	Non-personal pecuniary	Declare and participate

Richard Osborne	Collaboration work with Portable Medical Technology Limited to develop a self-management app to assist in dealing with acute complications of cancer and chemotherapy	Non-personal pecuniary	Declare and participate
Euan Paterson	Shares with GSK as part of a managed portfolio	Personal pecuniary	Declare and participate as shares are part of a managed portfolio

About this guideline

NICE clinical guidelines are recommendations about the treatment and care of people with specific diseases and conditions.

NICE guidelines are developed in accordance with a scope that defines what the guideline will and will not cover.

This guideline was developed by the National Collaborating Centre for Cancer, which is based at the Velindre NHS Trust in Cardiff. The Collaborating Centre worked with a Guideline Development Group, comprising healthcare professionals (including consultants, GPs and nurses), patients and carers, and technical staff, which reviewed the evidence and drafted the recommendations. The recommendations were finalised after public consultation.

The methods and processes for developing NICE clinical guidelines are described in the guidelines manual.

NICE produces guidance, standards and information on commissioning and providing high-quality healthcare, social care, and public health services. We have agreements to provide certain NICE services to Wales, Scotland and Northern Ireland. Decisions on how NICE guidance and other products apply in those countries are made by ministers in the Welsh government, Scottish government, and Northern Ireland Executive. NICE guidance or other products may include references to organisations or people responsible for commissioning or providing care that may be relevant only to England.

Update information

This guideline updates and replaces NICE guideline CG27 (published June 2005). Recommendations 1.1.1 to 1.1.3 update and replace recommendations 1.1.2 to 1.1.5 for referral and indications for chest radiography from lung cancer, NICE guideline CG121 (published April 2011).

Recommendations are marked as [new 2015], [2015], [2011] or [2005]:

- **[new 2015]** indicates that the evidence has been reviewed and the recommendation has been added or updated
- **[2015]** indicates that the evidence has been reviewed but no change has been made to the recommended action
- **[2005] [2011]** indicates that the evidence has not been reviewed since that date (of the original guideline).

Strength of recommendations

Some recommendations can be made with more certainty than others. The Guideline Development Group makes a recommendation based on the trade-off between the benefits and harms of an intervention, taking into account the quality of the underpinning evidence. For some interventions, the Guideline Development Group is confident that, given the information it has looked at, most patients would choose the intervention. The wording used in the recommendations in this guideline denotes the certainty with which the recommendation is made (the strength of the recommendation).

For all recommendations, NICE expects that there is discussion with the patient about the risks and benefits of the interventions, and their values and preferences. This discussion aims to help them to reach a fully informed decision (see also patient-centred care).

Interventions that must (or must not) be used

We usually use 'must' or 'must not' only if there is a legal duty to apply the recommendation. Occasionally we use 'must' (or 'must not') if the consequences of not following the recommendation could be extremely serious or potentially life threatening.

Interventions that should (or should not) be used – a 'strong' recommendation

We use 'offer' (and similar words such as 'refer' or 'advise') when we are confident that, for the vast majority of patients, an intervention will do more good than harm, and be cost effective. We use similar forms of words (for example, 'Do not offer…') when we are confident that an intervention will not be of benefit for most patients.

Interventions that could be used

We use 'consider' when we are confident that an intervention will do more good than harm for most patients, and be cost effective, but other options may be similarly cost effective. The choice of intervention, and whether or not to have the intervention at all, is more likely to depend on the patient's values and preferences than for a strong recommendation, and so the healthcare professional should spend more time considering and discussing the options with the patient.

Recommendation wording in guideline updates

NICE began using this approach to denote the strength of recommendations in guidelines that started development after publication of the 2009 version of 'The guidelines manual' (January 2009). This does not apply to any recommendations shaded in grey and ending [2005] (see 'Update information' box below for details about how recommendations are labelled). In particular, for recommendations labelled [2005], the word 'consider' may not necessarily be used to denote the strength of the recommendation.

Recommendation wording in guideline updates

NICE began using this approach to denote the strength of recommendations in guidelines that started development after publication of the 2009 version of 'The guidelines manual' (January 2009). This does not apply to any recommendations ending **[2005]** (see 'Update information' above for details about how recommendations are labelled). In particular, for recommendations labelled **[2005]** the word 'consider' may not necessarily be used to denote the strength of the recommendation.

Other versions of this guideline

The full guideline, 'Suspected cancer: recognition and referral' contains details of the methods and evidence used to develop the guideline. It is published by the National Collaborating Centre for Cancer.

The recommendations from this guideline have been incorporated into a NICE pathway.

We have produced information for the public about this guideline.

Implementation

Implementation tools and resources to help you put the guideline into practice are also available.

Your responsibility

This guidance represents the view of NICE, which was arrived at after careful consideration of the evidence available. Healthcare professionals are expected to take it fully into account when exercising their clinical judgement. However, the guidance does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer, and informed by the summaries of product characteristics of any drugs.

Implementation of this guidance is the responsibility of local commissioners and/or providers. Commissioners and providers are reminded that it is their responsibility to implement the guidance, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity and foster good relations. Nothing in this guidance should be interpreted in a way that would be inconsistent with compliance with those duties.

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