

Suspected cancer: recognition and referral

NICE guideline

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Your responsibility

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

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This guideline replaces CG27.

This guideline partially replaces CG121 and CG122.

This guideline is the basis of QS96, QS124 and QS130.

This guideline should be read in conjunction with QS155.

Overview

This guideline covers the identifying children, young people and adults with symptoms that could be caused by cancer. It outlines appropriate investigations in primary care, and selection of people to refer for a specialist opinion. It aims to help people understand what to expect if they have symptoms that may suggest cancer.

Who is it for?

- Healthcare professionals
- People involved in clinical governance in both primary and secondary care
- People with suspected cancer and their families and/or carers

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 [update information](#) 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 adults 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. [new 2015]

- 1.3.2 Consider a suspected cancer pathway referral (for an appointment within 2 weeks) for colorectal cancer in adults 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 This recommendation has been replaced by our diagnostics guidance on [quantitative faecal immunochemical tests to guide referral for colorectal cancer in primary care](#). The diagnostics guidance recommends tests for occult blood in faeces, for people without rectal bleeding but with unexplained symptoms that do not meet the criteria for a suspected cancer pathway referral in recommendations 1.3.1 to 1.3.3.

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 pathway referral (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^[3] 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 (<u>persistent</u> 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 <u>primary care investigations</u> 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 <u>suspected cancer pathway referral</u> (for an appointment within 2 weeks) [1.3.2] |

| | | |
|--|------------------------|--|
| Splenomegaly (unexplained) in adults³ | 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 mass consistent 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 <u>direct access</u> 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] |

¹An 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

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

³Separate 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 adults 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 (unexplained) without rectal bleeding, and criteria for a suspected cancer pathway referral not met | Colorectal | See diagnostics guidance on quantitative faecal immunochemical tests to guide referral for colorectal cancer in primary care |
| 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 symptoms² 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 adults 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 (unexplained) without rectal bleeding, and criteria for a suspected cancer pathway referral not met | Colorectal | See diagnostics guidance on quantitative faecal immunochemical tests to guide referral for colorectal cancer in primary care |
| 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 |

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

²See 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 malignant on 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 <u>non-urgent direct access</u> 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 <u>suspected cancer pathway referral</u> (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] |

¹Unexplained 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 adults 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 <u>consistent with</u> 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 (<u>unexplained</u>) 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 <u>consistent with</u> oral cancer [1.8.4] |
| Lump (unexplained) that is increasing in size in adults | Soft tissue sarcoma | Consider an urgent <u>direct access</u> 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 (<u>persistent</u> 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] |
| <p>¹Separate 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.</p> | | |

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] |
| <p>¹Separate 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.</p> | | |

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 | <p>Consider an urgent referral (for an appointment within 2 weeks) for assessment by a dentist [1.8.3]</p> <p>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]</p> |
|-------------------------|------|--|

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 <u>direct access</u> 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 <u>unexplained</u> lymphadenopathy in adults ¹ | Hodgkin's lymphoma | Consider a <u>suspected cancer pathway referral</u> (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 <u>direct access</u> CT scan (to be performed within 2 weeks), or an urgent ultrasound scan if CT is not available [1.2.5] |

| | | |
|--|----------------------|---|
| Back pain (<u>persistent</u>), 60 and over | Myeloma | Offer a full blood count, blood tests for calcium and plasma viscosity or erythrocyte sedimentation rate [1.10.4] See <u>primary care investigations</u> 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 <u>primary care investigations</u> 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] |
| <p>¹Separate 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.</p> | | |

Respiratory symptoms

Chest infection

| Symptom and specific features | Possible cancer | Recommendation |
|--|-----------------|---|
| Chest infection (<u>persistent</u> 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 (<u>unexplained</u>), 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 <u>suspected cancer pathway referral</u> (for an appointment within 2 weeks) [1.8.1] |

Respiratory examination findings

| Symptom and signs | Possible cancer | Recommendation |
|--|----------------------|---|
| Chest signs <u>consistent with lung cancer</u> , 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] |

¹Separate 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 (<u>unexplained</u>), 60 and over | Myeloma | Offer a full blood count, blood tests for calcium and plasma viscosity or erythrocyte sedimentation rate [1.10.4] See <u>primary care investigations</u> 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 (<u>unexplained</u>) | Anal | Consider a <u>suspected cancer pathway referral</u> (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 erythroleukoplakia <u>consistent with</u> | 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 <u>persistent</u> 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 <u>raises the suspicion of</u> 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] |
| <p>¹Separate 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.</p> <p>²Typical 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).</p> | | |

Urological symptoms

Dysuria

| Symptom and specific features | Possible cancer | Recommendation |
|---|-----------------|---|
| Dysuria with <u>unexplained</u> non-visible haematuria, 60 and over | Bladder | Refer people using a <u>suspected cancer pathway referral</u> (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 <u>non-urgent</u> 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 <u>primary care investigations</u> 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 <u>primary care investigations</u> 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 (<u>unexplained</u>) | 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 (<u>persistent</u> 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 <u>direct access</u> 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] |

¹Separate 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] |
| <p>¹Separate 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.</p> | | |

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 adults 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, and criteria for a suspected cancer pathway referral not met | Colorectal | See diagnostics guidance on quantitative faecal immunochemical tests to guide referral for colorectal cancer in primary care |
| 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 adults¹ | 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 <u>non-urgent</u> direct access upper gastrointestinal endoscopy [1.2.3] [1.2.9] |
| <p>¹Separate 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.</p> <p>²The recommendations for ovarian cancer apply to women aged 18 and over.</p> | | |

Primary care investigations

Blood test findings

| Investigation findings and specific features | Possible cancer | Recommendation |
|--|-----------------|--|
| Anaemia (iron-deficiency), 60 and over | Colorectal | Refer adults using a <u>suspected cancer pathway referral</u> (for an appointment within 2 weeks) [1.3.1] |
| Anaemia (iron-deficiency, <u>unexplained</u>) 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, and criteria for a suspected cancer pathway referral not met | Colorectal | See diagnostics guidance on <u>quantitative faecal immunochemical tests to guide referral for colorectal cancer in primary care</u> |
| Blood glucose levels high with visible haematuria in women 55 and over | Endometrial | Consider a <u>direct access</u> 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 <u>non-urgent</u> direct access upper gastrointestinal endoscopy [1.2.3] [1.2.9] |
| Hypercalcaemia or leukopenia and presentation <u>consistent with</u> 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 CA125 results | Ovarian | <p>If serum CA125 is 35 IU/ml or greater, arrange an ultrasound scan of the abdomen and pelvis [1.5.7]</p> <p>Normal serum CA125 (less than 35 IU/ml), or CA125 of 35 IU/ml or greater but a normal ultrasound:</p> <ul style="list-style-type: none"> • 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 adults 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] |
| Ultrasound normal 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] |

¹An 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.

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

³Separate 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 <u>immediate</u> specialist assessment [1.10.2] |
| Abdominal mass (palpable) or enlarged abdominal organ (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] |
| <p>¹Separate 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.</p> | | |

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 |

¹Separate 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] |

¹Separate 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 people¹ | 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 people¹ | 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 people¹ | 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 people¹ | 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 people¹ | 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 people¹ | 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 people¹ | 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 people¹ | 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] |
| <p>¹Separate 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.</p> | | |

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 | <p>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</p> <p>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]</p> |

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] |
| <p>¹Separate 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.</p> | | |

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] |

More information

You can also see this guideline in the NICE pathways on [suspected cancer: recognition and referral](#) and [lung cancer](#).

To find out what NICE has said on topics related to this guideline, see our web page on [cancer](#). See also the guideline committee's discussion and the evidence reviews (in the [full guideline](#)), and information about [how the guideline was developed](#), including details of the committee.

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.

Update information

July 2017: Recommendation 1.3.4 was replaced by newly published NICE diagnostics guidance on [quantitative faecal immunochemical tests to guide referral for colorectal cancer in primary care](#). Recommendation 1.3.1 was amended to remove a link to recommendation 1.3.4. In December 2017, the wording of 1.3.4 was clarified, and the tables on [abdominal and pelvic pain](#), [change in bowel habit](#) and [primary care investigations](#) updated in line with this.

June 2016: Recommendations 1.3.1 and 1.3.2 have been changed to say 'adults' instead of 'people' to more accurately reflect the populations they cover.

July 2015: Guideline Development Group and declarations of interest amended.

June 2015: 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 ending [2005] (see [update information](#) 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.

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Accreditation

