Implementation NICE guideline - recognition and referral of suspected cancer (NG12) & vague symptoms

Dr Jim McMorrnan
Cancer Research UK GP
Editor in chief GPnotebook
NICE Suspected guidance (NG12)

Recommendations on the symptoms, signs and abnormal investigation results that warrant investigations and referral for suspected cancer.

Key changes

- Recommendations organised by signs and symptoms
- Thresholds lowered down to 3% positive predictive value (PPV) for adults and even more for children
- Referrals to direct testing
- Very urgent referrals (within 48 hours)
- Safety netting recommendations

NICE guideline [NG12]  
Published date: June 2015  
Last Updated: July 2017

Cancer Research UK
NG12: What does NEW 3% PPV look like?

- If you received a safety recall notice explaining that there was a fault with your car that had a higher than 1 in 33 chance of breaking down and potentially killing you. *Would you take your car to be checked?*

- NG12 made recommendations for children and young people significantly below the 3% PPV threshold, although no explicit threshold value was set.
NICE Guidance (NG12): highlights

New symptom clusters recommended for suspected cancer two week wait referrals

- Lung cancer: Haemoptysis in patients over 40y
- Brain cancer: Adults with progressive, sub-acute loss of central neurological function
- Breast Cancer: Unexplained axillary lump
- Lower GI cancer: Under 50y with rectal bleeding and iron deficiency anaemia
- Upper GI cancer: Weight loss in over 55s with either upper abdominal pain or reflux or dyspepsia
NICE Guidance (NG12): highlights

Signs and symptoms recommended for primary care two week wait investigations for suspected cancer

**Chest X-ray** urgent, to assess for lung cancer in over 40s with a range of vague symptoms and smokers requiring fewer symptoms to qualify

**Ultrasound** direct access, to assess for endometrial cancer if woman aged over 55 with visible haematuria or vaginal discharge (and abnormal investigation results)

**Abdominal CT** direct access, to assess for pancreatic cancer in over 60 and weight loss and new onset diabetes or a back pain or a range of abdominal symptoms
NICE Guidance (NG12): highlights

New abnormal primary care test results recommended for suspected cancer
two week wait referral

*Raised platelets* relevant to:

- Lung cancer
- Endometrial cancer
- Gastric cancer
- Oesophageal cancer

*Anaemia*  
No thresholds for iron deficiency anaemia in lower GI urgent referral guidance.

*HbA1c*  
Diagnosis of new onset diabetes in 60 year old with weight loss for abdominal CT
Use of FIT in symptomatic patients (DG30)

- 2017 recommendation
- For patients with certain symptoms that are under 3% PPV
- Thresholds lower than in the use of FIT for screening
- If FIT test is positive => urgent suspected cancer referral

Hearing loss

- Middle ear effusion in certain ethnic groups => urgent suspected cancer referral
NICE Guidance (NG12): Updates since 2015

- Change of PSA age related reference ranges
- PHE 2016
- PSA \( \geq 3 \) for 50-69y

Source: https://cks.nice.org.uk/prostate-cancer#diagnosissub:2
Further resources

CRUK Online Support: https://www.cancerresearchuk.org/health-professional/learning-and-support/online-learning/continual-professional-development-cpd
- raised platelet count and increased cancer risk

- risk of cancer increased with increasing platelet count
- patients with thrombocytosis were at consistently greater risk than those with normal platelet counts across all ages; the difference in risk between those with and without thrombocytosis increased from age 70 years
- specific cancers:
  - lung and colorectal cancers were the most commonly diagnosed cancers in the thrombocytosis cohort
  - lung cancer - of the 31,261 patients with thrombocytosis, 573 were diagnosed with lung cancer; 195 (35.7%) had no symptoms warranting urgent investigation as per NICE guidance, other than thrombocytosis
  - colorectal cancer - 627 of the 31,261 patients with thrombocytosis were diagnosed with colorectal cancer; 206 (32.9%) had no symptoms in the year before diagnosis warranting urgent investigation for cancer
  - at least one third of patients with lung and colorectal cancer with pre-diagnosis thrombocytosis had no other symptoms indicative of malignancy
- positive predictive value of thrombocytosis is 11.6% (95% confidence interval [CI] = 11.0 to 12.3) for males and 6.2% (95% CI = 5.9 to 6.5) for females

Notes:
- the acronym LEGO is used to define the cancers possibly suggested by thrombocytosis by NICE cancer guidance (2):
  - Lung cancer
  - Endometrial cancer
  - Gastric cancer
  - Oesophageal cancer

Reference:
NICE urgent cancer referral guidance 2015

Skin Cancer Headlines

• Weighted 7-point checklist for assessing possible mm
  • Major – size, shape, colour (2)
  • Minor – largest diameter of 7mm or more, inflammation, oozing…. change in sensation (1)

• Use of dermatoscopy
• BCC
• Nodular melanoma – pigmented or non pigmented
NICE – Urgent Cancer Referral Guidance 2015
NICE – Urgent Cancer Referral Guidance 2015
For example guidance relating to ...Weight loss in adults

- **Weight loss (unexplained)** – several, including colorectal, gastro-oesophageal, lung, prostate, pancreatic or urological cancer:
  - Weight loss (unexplained) with abdominal pain, 40 and over -> 2ww colorectal
  - Weight loss (unexplained) with rectal bleeding in adults under 50 > 2ww colorectal
  - Weight loss (unexplained) without rectal bleeding, 50 and over > FOBs
  - Weight loss (unexplained), 40 and over, ever smoked > CXR
  - Weight loss (unexplained), 40 and over, exposed to asbestos > CXR
  - Weight loss with cough or fatigue or shortness of breath or chest pain or appetite loss (unexplained), 40 and over, never smoked > CXR
  - Weight loss with unexplained splenomegaly in adults > 2ww haem (NHL)
  - Weight loss with unexplained lymphadenopathy in adults > 2ww haem
  - Weight loss with upper abdominal pain or reflux or dyspepsia, 55 and over > direct access OGD
  - Weight loss (unexplained) in women > Ca125 ......
NICE – Urgent Cancer Referral Guidance 2015

Anaemia in adults

• Anaemia (iron-deficiency), 60 and over > 2WW colorectal
• Anaemia (iron-deficiency, unexplained) with rectal bleeding in adults under 50 > 2ww colorectal
• Anaemia (iron-deficiency) without rectal bleeding in adults under 60 > FOBs
• Anaemia (even in the absence of iron-deficiency) without rectal bleeding, 60 and over > FOBs
• Haemoglobin levels low with visible haematuria in women 55 and over > pelvic USS
• Haemoglobin levels low with upper abdominal pain, 55 and over > non urgent direct access OGD
### raised platelet count (thrombocytosis) - NICE urgent cancer referral guidance

<table>
<thead>
<tr>
<th>Investigation findings and specific features</th>
<th>Possible Cancer</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Platelet count raised with nausea or vomiting or weight loss or reflux or dyspepsia or upper abdominal pain, 55 and over</td>
<td>Oesophageal or stomach</td>
<td>Consider non-urgent direct access upper gastrointestinal endoscopy</td>
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### Investigation findings and specific features

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<td><strong>Thrombocytosis, 40 and over</strong></td>
<td>Lung</td>
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<tr>
<td><strong>Thrombocytosis with visible haematuria or vaginal discharge (unexplained) in women 55 and over</strong></td>
<td>Endometrial</td>
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Reference:
- NICE (June 2015). Suspected cancer: recognition and referral

Links:
- NICE urgent cancer referral guidance (guidelines with respect to primary care investigations)
**weight loss in adults - NICE urgent cancer referral guidance**

### Weight Loss

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<th>Symptom and Specific Features</th>
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<td>Weight loss</td>
<td>Several, including colorectal, gastro-esophageal, lung</td>
<td>Carry out an assessment for additional symptoms, signs or findings that may help to clarify which cancer is most likely. Offer urgent.</td>
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| Weight loss (unexplained) | Several, including colorectal, gastrointestinal, lung, prostate, pancreatic, or urological cancer | cancer is most likely 
Offer urgent investigation or a suspected cancer pathway referral (for an appointment within 2 weeks) |

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| Weight loss (unexplained) aged 60 or over with any of the following:  
- diarrhoea  
- back pain  
- abdominal pain  
- nausea  
- vomiting  
- constipation new-onset diabetes | Pancreatic | consider urgent direct access CT scan |
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<th>Cancer</th>
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<td>Weight loss (unexplained) in women</td>
<td>Ovarian</td>
<td>Measure serum CA125 in primary care</td>
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<td>Weight loss with diarrhoea or back pain or abdominal pain or nausea or vomiting or constipation or new-onset diabetes, 60 and over</td>
<td>Pancreatic</td>
<td>Consider an urgent direct access CT scan (to be performed within 2 weeks), or an urgent ultrasound scan if CT is not available</td>
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<td>Oesophageal or stomach</td>
<td>Consider non-urgent direct access upper gastrointestinal endoscopy</td>
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Source: https://cks.nice.org.uk/prostate-cancer#!diagnosissub:2
Further resources

CRUK Online Support: https://www.cancerresearchuk.org/health-professional/learning-and-support/online-learning/continual-professional-development-cpd
Case study 1st consultation shortness of breath

A white male patient Mark, aged 57, never smoked, a keen cyclist

• Presenting with shortness of breath after exertion which started suddenly, about a month ago:
  "I run out of breath after cycling comparatively short distances"
• No cough or pain in the chest
• Pulse is normal and lungs sound clear
• No other symptoms reported

What would you do/ask next?
Case study 1st consultation shortness of breath

Consider all causes of shortness of breath, what questions would you need to ask for more information?

- Ask about past and current occupational exposure
  - No exposure to asbestos in past/current roles

- Check whether Mark’s non-smoking status has changed
  - No – still non smoker

- Check for shortness of breath as a red flag symptom for cancer
  - NG12, SCRG and NICAN guidance
CASE STUDY 1st CONSULTATION SHORTNESS OF BREADTH

NG12 guidance states...

SHORTNESS OF BREATH
Ever smoked/asbestos exposed 40+: 19
With cough/fatigue/chest pain/weight loss/appetite loss 40+: 19
With unexplained lymphadenopathy: 5
With unexplained splenomegaly: 5
Case study 1st consultation shortness of breath

- Shortness of breath reported as the only symptom, with no history of smoking or asbestos exposure means that a suspected cancer referral/investigation is not recommended by NG12.

  What would you do next?

- Further investigation within primary care (blood tests and routine chest x-ray)
  - Book tests, set reminders for test results and ensure results are communicated to Mark.

- No further action:
  - BUT ask Mark to book another appointment if symptoms develop, worsen or persist. Code symptoms in GP software. Explain who to contact for further questions. Give any relevant patient leaflets. (Safety netting processes).
Case study  2nd consultation and test results
shortness of breath

• You ordered routine blood tests. Raised platelets reported
• In order to investigate reasons for raised platelet levels, you give Mark a call.
• You tell him that his blood test indicate that he needs further assessments to explain raised platelets.
• During 2nd consult Mark also says he started smoking a few years ago.

What are the next steps?

Shortness of breath + ever smoked history in those 40+
Raised platelet levels in those 40+
= NG12 recommends considering an urgent chest X-ray (to be performed within 2 weeks)
Additional learning points from CASE STUDY
.... Raised platelet counts or ‘thrombocytosis’ linked to

- Lung
- Endometrial
- Gastric
- Oesophageal

⇒ LEGO...

Emerging evidence suggests:
Colorectal
Additional learning points from the case study

... chest x ray accuracy. What is the CXR false negative rate among patients diagnosed with lung cancer?

- Around 23-25% (though other studies have reported this as low as 10%)

What can we do to try and prevent these patients from falling through the net?

- Safety-netting
- Further testing at GP practice
Key learning points from the case study

- Thorough history taking
- Awareness of cancer referral guidelines
- Chest x-ray accuracy
- Thrombocytosis/raised platelets
- Safety-netting
- Patient Information
Primary care and cancer matters

Further resources

• Cancer Research UK Health Professional Resources webpage.
  https://www.cancerresearchuk.org/health-professional/learning-and-support/resources

• Contact a CRUK Health Professional Facilitator to arrange a practice visit.
  https://www.cancerresearchuk.org/health-professional/learning-and-support/tailored-help-for-gp-practice