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6 out of 10 patients in England with 'red flag' symptoms not given urgent cancer referral

Nearly 4% of these patients were diagnosed with cancer within next 12 months, study shows

Six out of 10 patients in England with 'red flag' symptoms indicative of possible cancer didn't receive an urgent referral for specialist assessment within 2 weeks, as recommended in clinical guidelines, finds research published online in the journal **BMJ Quality & Safety**.

Nearly 4% of these patients were subsequently diagnosed with cancer within the next 12 months, the research shows.

In recognition of the importance of prompt diagnosis on survival, guidelines introduced in England in 2000 recommended that GPs (family doctors) refer patients with certain features of possible cancer to a specialist within 14 days.

Relevant 'red flag' features were defined by the National Institute for Health and Care Excellence (NICE) in 2005 and updated in 2015. These cover particular clinical signs, test results, and symptoms.

The researchers wanted to find out how well GPs followed these guidelines and the proportion of patients with red flag symptoms who weren't referred, but who were subsequently diagnosed with cancer within the next 12 months. They also wanted to know if certain patients were more or less likely to be referred within the 2 week window.

So they drew on information on diagnoses, investigations, and treatment of general practice patients supplied to the Clinical Practice Research Datalink (CPRD), a large database of routinely collected anonymised UK primary care health records.

They focused on GOLD data, which covered around 7% of the UK population in 2014, and which are linked to hospital referrals and treatment, cancer diagnoses, and residential postcodes to pick up area deprivation.

They included all patients who visited their GP in 2014 and 2015 with any one of six 'red flag' symptoms: swallowing difficulties (dysphagia); postmenopausal bleeding; iron deficiency anaemia; rectal bleeding; blood in the urine (haematuria); and a breast lump.

These two years were included because cancer registry data were only available up to and including 2016 at the time of data extraction for the study.

In all, there were 48,715 consultations in 2014 and 2015 where an urgent referral for suspected cancer would have been recommended. The average age of these patients was 60, but ranged by presenting symptom, of which the most common were a breast lump (33%) and rectal bleeding (27%). Most (80%) patients had at least one coexisting condition. And those who lived in the least deprived areas were overrepresented (26% vs an expected 20%).

Overall, 40% (19,670) of patients received an urgent referral within 2 weeks of seeing their GP. But rates varied substantially both among clinicians and among practices.

The lowest referral rate was for problems swallowing, at just 17% (1384), while the highest was for a breast lump, at 68% (11,007). Younger patients (18–24) and those with a higher number of coexisting conditions were less likely to be given an urgent referral.

Of the 19,670 patients who received an urgent referral, 1,950 (10%) were subsequently diagnosed with cancer within the year. Of the 29,045 patients who didn't receive one, 1,047 (3.6%) were diagnosed with cancer within the next 12 months.

The percentage of patients diagnosed with cancer of a specific site within a year of not receiving an urgent referral was low for most cancers, with the exception of bowel cancer for patients with iron deficiency anaemia (5.5%), breast cancer for patients with a breast lump (3.5%), and womb cancer for patients with postmenopausal bleeding (3%).

This is an observational study, and as such, can't establish cause. And although the study showed that many patients with a red flag symptom were diagnosed with cancer after not receiving an urgent referral, the researchers acknowledge that they were unable to assess the potential impact of this on cancer progression.

"Six out of 10 patients presenting to primary care with a high-risk feature of possible cancer did not receive an urgent referral in the 14 days after presentation, despite this being a guideline-recommended action," they note.

There are also several possible explanations for why urgent referrals aren't made or recorded, they explain. These include an emergency admission, an out of hours consultation, or prior referral for another condition.

"Given the proportion of patients going on to be diagnosed with cancer was considerably higher in those receiving an urgent referral than those who did not, we can conclude that GP referral decision-making is not without value," write the researchers.

"However, given the number of patients diagnosed with cancer after non-referral, we may question whether clinical judgement is good enough," they add. "In these patients it can be argued that guideline-discordant decision-making may have resulted in a missed opportunity to diagnose early."

And they conclude: "Stricter adherence to the guidelines and increased awareness of patient groups especially at risk of long diagnostic timelines may help improve early diagnosis and ultimately cancer survival rates.

"Due to the potential impact of regional health services, interventions to reduce guideline discordant behaviour may have more impact if they do not just focus on GPs and individual practices, but also on local diagnostic service provision."