Urgent GP referral rates for suspected cancer

NCIN Data Briefing

KEY MESSAGE:

The two-week urgent referral pathway for suspected cancer is a key part of the strategy for achieving earlier diagnosis and improved survival rates in England.

There is a wide variation in urgent referral rates across England which merits further investigation.

Background

Later cancer diagnosis is a major explanation for poorer survival rates in the UK. In England, *the Improving Outcomes: A Strategy for Cancer*[1] estimates that, if patients were diagnosed at the same earlier stage as they are in other countries up to 10,000 deaths could be avoided every year. The Strategy states that the challenge is clear:
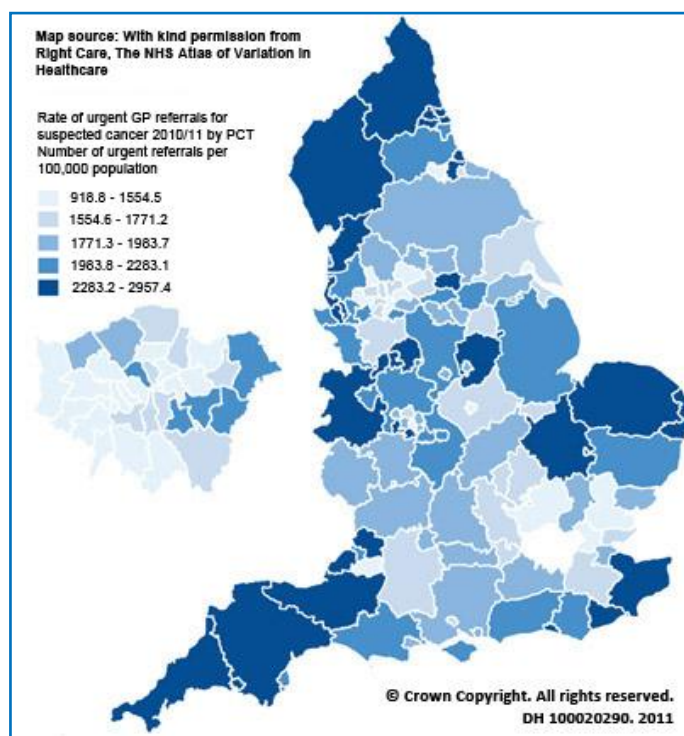
'In order to improve early diagnosis, we need to encourage people to recognise the symptoms and signs of cancer and seek advice from their doctor as soon as possible. We also need doctors to recognise these symptoms and (if appropriate) refer people urgently for specialist care.'

In a 2010 report[2], the National Audit Office identified that, amongst PCTs, there was almost a four-fold variation in the urgent cancer referral (two week wait) rate. This briefing provides updated information on the variation in the two-week wait referral rate.

Map source: With kind permission from Right Care, The NHS Atlas of Variation in Healthcare

Rate of urgent GP referrals for suspected cancer 2010/11 by PCT Number of urgent referrals per 100,000 population

918.8 - 1554.5
1554.6 - 1771.2
1771.3 - 1983.7
1983.8 - 2283.1
2283.2 - 2957.4

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DH 100020290. 2011

Urgent GP referral rates across England

Across England, around one million urgent GP referrals for suspected cancer were made in 2010/11. Of these patients, 95.5% were seen within 14 days of referral.[3] On average, a GP will make around 25 urgent referrals a year, that is, roughly one every fortnight.
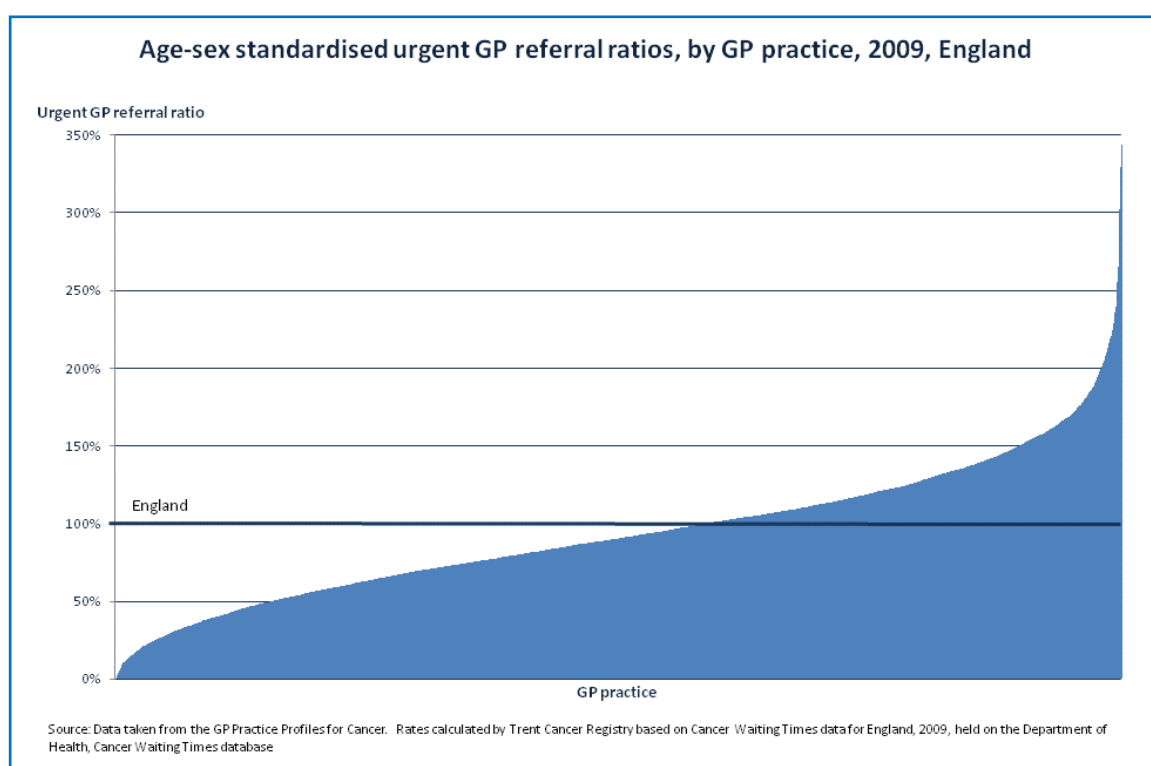
In England in 2010/11, around 1,900 urgent GP referrals per 100,000 population were made. However, there was a wide variation in urgent referral rates between PCTs, ranging from around 900 to 2,950 urgent referrals per 100,000 population - which is more than a three-fold variation across PCTs. In 13 PCTs (around 10% of all PCTS), urgent referrals rates were above 2,500 per 100,000 population per year, while in 23 PCTs (15%) referral rates were below 1,500 per 100,000.[4]

A table showing the PCT urgent GP referral rates for 2010/11 can be found at www.ncin.org.uk/publications/data_briefings/gp_referral_rates.

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Most PCTs with high referral rates were in areas known to have above average levels of cancer incidence. In many cases this is because they have a high proportion of elderly residents (eg Hastings and Rother) or high rates for risk factors, such as smoking prevalence (e.g. Knowsley). Conversely, most of the PCTs with low rates of urgent referral were in areas with lower than average levels of cancer incidence because they have a low proportion of elderly residents (e.g. Tower Hamlets). However, it is unlikely that such wide variations in urgent referral rates between PCTs can be explained just by differences in underlying cancer incidence rates.

The chart below shows how use of the urgent referral system varied between GP practices in England in 2009. The information is taken from the GP Practice Profiles for Cancer[5] and shows the age-standardised referral ratio[6] for each practice. This is expressed as a percentage with "100%" representing the same referral rate as England as a whole, taking into account the size and age-structure of the practice population. There are around 8,000 GP practices in England. More than 1,000 practices (15%) had a referral ratio of less than 50% and therefore referred less than half of the average number of patients. On the other hand, more than 800 practices (10%) had a referral ratio of 150% or higher, indicating that they referred 50% or more patients than the average.

Age-sex standardised urgent GP referral ratios, by GP practice, 2009, England

Source: Data taken from the GP Practice Profiles for Cancer. Rates calculated by Trent Cancer Registry based on Cancer Waiting Times data for England, 2009, held on the Department of Health, Cancer Waiting Times database

We would expect a certain degree of variation in referral ratios between practices, for example, because of differences in cancer incidence rates, prevalence of risk factors, different use of diagnostic tests and year on year random variation. However, the wide level of variation between practices merits further investigation.

Conclusion

There is wide variation in urgent GP referral rates between PCTs in England. The rate of referral will vary from one type of cancer to another, and will be influenced by the age structure and cancer risk profile of the population. However, as suggested by the GP practice results, the degree of variation observed is probably greater than could be accounted for by the age distribution of populations.

It is important to emphasise that there is no "right" or "wrong" level of referral. At present, work is being undertaken to understand the reasons for this variation. To support the National Awareness

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and Early Diagnosis Initiative (NAEDI), the NCIN has produced GP Practice Profiles for Cancer to provide comparative information for benchmarking and reviewing variations at a General Practice level. In addition to urgent referral rates, the Profiles also show how a practice compares with others in terms of the proportion of patients referred who are subsequently diagnosed with cancer (conversion rate) and also the proportion of cancer cases in the practice that were referred through the two-week wait route (detection rate). At present the Profiles are only available within the NHS.

To better understand variations in use of the urgent referral pathway and to achieve earlier diagnosis, it is important that all three measures are considered together and with usage of diagnostic tests.

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[1] Improving Outcomes: A Strategy for Cancer
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsPolicyAndGuidance/DH_123371
[2] The National Audit Office, Delivering the Cancer Reform Strategy
http://www.nao.org.uk/publications/1011/cancer_reform_strategy.aspx
[3] Department of Health, Cancer Waiting Times, annual report 2010-11,
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_128618
[4] Referral rates calculated by the NCIN. Number of two week wait referrals divided by population. Sources: Number of GP two week wait referrals, Department of Health, Commissioner-based cancer waiting times, April 2010 to March 2011, annual reference volume,
http://www.dh.gov.uk/en/Publicationsandstatistics/Publications/PublicationsStatistics/DH_128719 . GP registered populations 2010, The Information Centre Attribution dataset, http://www.ic.nhs.uk/statistics-and-data-collections/population-and-geography/gp-registered-populations .
[5] Data taken from the GP Practice Profiles for Cancer. Rates calculated by Trent Cancer Registry based on Cancer Waiting Times data for England, 2009, held on the DH Cancer Waiting Times Database. The GP Practice Profiles bring together a range of outcomes and process information relevant to cancer in primary care. They provide readily available and comparative information for benchmarking and reviewing variations at a general practice level. GP Practice Profiles are currently available within the NHS. http://www.ncin.org.uk/cancer_information_tools/gp_profiles.aspx
[6] This is the observed number of referrals from the practice *divided by* the expected number of referrals if the practice had the same age-specific referrals rates as England.

FIND OUT MORE:

Trent Cancer Registry
Trent Cancer Registry is the NCIN lead registry for the processing and analysis of Cancer Waiting Times data to support cancer registration and the investigation of urgent referral rates
http://www.empho.org.uk/tcr/aboutus.aspx

Department of Health
Cancer waiting times
http://www.dh.gov.uk/en/Publicationsandstatistics/Statistics/Performancedataandstatistics/HospitalWaitingTimesandListStatistics/CancerWaitingTimes/index.htm

The National Cancer Intelligence Network is a UK-wide initiative, working to drive improvements in standards of cancer care and clinical outcomes by improving and using the information collected about cancer patients for analysis, publication and research. Sitting within the National Cancer Research Institute (NCRI), the NCIN works closely with cancer services in England, Scotland, Wales and Northern Ireland. In England, the NCIN is part of the National Cancer Programme.

www.ncin.org.uk/databriefings

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