Fast track referral for cancer
Moyez Jiwa and Christobel Saunders

BMJ 2007;335:267-268
doi:10.1136/bmj.39293.453090.AD

Updated information and services can be found at:
http://bmj.com/cgi/content/full/335/7614/267

These include:

References
This article cites 11 articles, 7 of which can be accessed free at:
http://bmj.com/cgi/content/full/335/7614/267#BIBL

Rapid responses
You can respond to this article at:
http://bmj.com/cgi/eletter-submit/335/7614/267

Email alerting service
Receive free email alerts when new articles cite this article - sign up in the box at the top left of the article

Notes

To order reprints follow the "Request Permissions" link in the navigation box
To subscribe to BMJ go to:
http://resources.bmj.com/bmj/subscribers
Fast track referral for cancer

Has not improved patient outcomes in the UK

Most patients with cancer who are not diagnosed by screening will be diagnosed after symptoms develop, so timely referral of patients to specialists is essential. In this week's BMJ Potter and colleagues assess the long term impact of the "two week wait" rule in the United Kingdom for breast cancer on referral patterns, diagnoses of cancer, and waiting times. Their study found that the diagnosis of cancer in people referred within two weeks significantly decreased in the period 1999-2005 (12.8% v 7.7%, P<0.001) and diagnoses in people referred through the routine route increased (2.5% v 5.3%, P<0.001). The study suggests that the current cancer referral policy in the UK—whereby patients with a given set of symptoms are seen within two weeks—results in more patients who have cancer being seen on routine waiting lists than on the fast track list. This means diagnosis is delayed even further. Why is this so, and how can it be rectified?

In formulating such rules, it is important to remember that waiting times for urgent appointments are only a surrogate end point. The main aim is to improve cancer survival, improve psychosocial outcomes for people with cancer and those who turn out not to have cancer, and to improve the general practitioner's ability to diagnose cancer. This rule seems not to have led to any of these outcomes, although it has perhaps increased the proportion of patients with benign pathology referred for urgent specialist appointments.

Introduction of the two week standard clinics has not improved the outcomes for patients in some of the commonest cancers. The reason for this may be the complexity of the medical consultation. Many factors affect the decision to refer for an expert opinion, including a patient's help seeking behaviour, doctor-patient communication, eliciting and interpreting signs and symptoms, applying evidence to decision making, negotiation with the patient about the need for and most appropriate route of referral, and conveying the information in sufficient detail to allow the patient to be fully informed about the need for urgency or otherwise. It has been calculated that if the practitioner successfully negotiates each of the above stages on 80% of occasions then only a small percentage of decisions will be evidence based.

A substantial proportion of patients with common cancers present as emergencies with advanced disease; in the case of colorectal cancer this has been estimated to be as high as 20%. This is especially true in deprived communities or in communities where people have cultural and linguistic differences.

A major step towards earlier diagnosis of cancer would be to raise awareness of the symptoms of cancer in the community. Furthermore, given that cancer is an uncommon diagnosis in general practice, practitioners are unlikely in most cases to opt to investigate symptomatic patients. Therefore patients with altered bowel habit may not be tested for iron deficiency anaemia or other signs of occult bleeding as symptoms are far more likely to be due to irritable bowel syndrome or diverticular disease than to colorectal cancer.

Bayes's theorem demonstrates that the probability that a patient has cancer is affected by the prevalence. The prevalence of cancer in a primary care population depends on the symptoms in question. Such considerations should influence the selection of patients for referral. In practice, however, doctors will act on the basis of personal experience, respected local opinion, and anecdotal evidence rather than on high quality published research. Research about the positive predictive value of signs and symptoms of the common cancers in primary care does exist. Implementing these findings in practice, however, will require substantial effort.

General practitioners must also be able to persuade patients with suspicious symptoms that a specialist opinion is required. In practice, however, it is the patients with worrisome symptoms of benign pathology who are likely to demand an urgent specialist appointment. Given that cancers also present with symptoms associated with benign conditions and in view of the rising tide of litigation and complaint from patients sensitised to sensational stories of misdiagnosis, it is hardly surprising that patients are being inappropriately referred through the fast track route. This phenomenon can also be
explained by Braess's paradox, whereby "adding extra capacity to a network, when the moving entities selfishly choose their route, can in some cases reduce overall performance" (http://en.wikipedia.org/wiki/Braess'_paradox).

So what is the best strategy for deciding which patients to refer for specialist opinion? Maybe one day we will have a reliable and valid test to help identify cancer patients in primary care. Until then, general practitioners should make a provisional diagnosis on the basis of a history and a physical examination, paying particular attention to genetic predisposition, exposure to carcinogens, and the type and duration of symptoms. Effective lines of communication between general practitioners and cancer specialists or networks will help to relay these clinical details, leading to earlier and more accurate diagnosis. Technological innovations that facilitate this process without being intrusive or cumbersome in practice may be more successful than published guidelines or schemes to ration urgent appointments only to those with a limited list of signs and symptoms.

Moyez Jiwa, professor of primary care¹, Christobel Saunders, professor of surgical oncology²

¹ WA Centre for Cancer and Palliative Care, Health Research Campus, Curtin University of Technology, GPO Box U1987, Perth, WA 6845, Australia, ² School of Surgery and Pathology, QEII Medical Centre, Perth, WA 6009

Correspondence to: M Jiwa m.jiwa@curtin.edu.au

Competing interests: None declared.

Provenance: Commissioned; not externally peer reviewed.

References


Related Articles

Referral patterns, cancer diagnoses, and waiting times after introduction of two week wait rule for breast cancer: prospective cohort study
Shelley Potter, Sasi Govindarajulu, Mike Shere, Fiona Braddon, Geoffrey Curran, Rosemary Greenwood, Ajay K Sahu, and Simon J Cawthorn
BMJ 2007 335: 288. [Abstract] [Full Text]

http://www.bmj.com/cgi/content/full/335/7614/267

10/08/2007
Evidence based guidelines or collectively constructed "mindlines?" Ethnographic study of knowledge management in primary care
John Gabbay and Andrée le May
BMJ 2004 329: 1013. [Abstract] [Full Text]
Fast track referral for cancer
Has not improved patient outcomes in the UK

Most patients with cancer who are not diagnosed by screening will be diagnosed after symptoms develop, so timely referral of patients to specialists is essential. In this week's BMJ Potter and colleagues assess the long term impact of the "two week wait" rule in the United Kingdom for breast cancer on referral patterns, diagnoses of cancer, and waiting times. They found that the diagnosis of cancer in people referred within two weeks significantly decreased in the period 1999-2005 (12.8% vs 7.7%, P<0.001) and diagnoses in people referred through the routine route increased (2.5% v 5.3%, P<0.001). The study suggests that the current cancer referral policy in the UK—whereby patients with a given set of symptoms are seen within two weeks—results in more patients who have cancer being seen on routine waiting lists than on the fast track list. This means diagnosis is delayed even further.

Why is this so, and how can it be rectified?

In formulating such rules, it is important to remember that waiting times for urgent appointments are only a surrogate end point. The main aim is to improve cancer survival, improve psychosocial outcomes for people with cancer and those who turn out not to have cancer, and to improve the general practitioner's ability to diagnose cancer. This rule seems not to have led to any of these outcomes, although it has perhaps increased the proportion of patients with benign pathology referred for urgent specialist appointments.

Introduction of the two week standard clinics has not improved the outcomes for patients in some of the commonest cancers. The reason for this may be the complexity of the medical consultation. Many factors affect the decision to refer for an expert opinion, including a patient's help seeking behaviour, doctor-patient communication, eliciting and interpreting signs and symptoms applying evidence to decision making, negotiation with the patient about the need for and most appropriate route of referral, and conveying the information in sufficient detail to allow the patient to be fully informed about the need for urgency or otherwise. It has been calculated that if the practitioner successfully negotiates each of the above stages on 80% of occasions then only a small percentage of decisions will be evidence based.

A substantial proportion of patients with common cancers present as emergencies with advanced disease; in the case of colorectal cancer this has been estimated to be as high as 20%. This is especially true in deprived communities or in communities where people have cultural and linguistic differences.

A major step towards earlier diagnosis of cancer would be to raise awareness of the symptoms of cancer in the community. Furthermore, given that cancer is an uncommon diagnosis in general practice, practitioners are unlikely in most cases to opt to investigate asymptomatic patients. Therefore patients with altered bowel habit may not be tested for iron deficiency anaemia or other signs of occult bleeding as symptoms are far more likely to be due to irritable bowel syndrome or diverticular disease than to colorectal cancer.

Bayes's theorem demonstrates that the probability that a patient has cancer is affected by the prevalence. The prevalence of cancer in a primary care population depends on the symptoms in question. Such considerations should influence the selection of patients for referral. In practice, however, doctors will act on the basis of personal experience, respected local opinion, and anecdotal evidence rather than on high quality published research. Research about the positive predictive value of signs and symptoms of the common cancers in primary care does exist. Implementing these findings in practice, however, will require substantial effort.

General practitioners must also be able to persuade patients with suspicious symptoms that a specialist opinion is required. In practice, however, it is the patients with worrisome symptoms of benign pathology who are likely to demand an urgent specialist appointment. Given that cancers also present with symptoms associated with benign conditions and in view of the rising tide of litigation and complaint from patients sensitised to sensational stories of misdiagnosis, it is hardly surprising that patients are being inappropriately referred through the fast track route.

This phenomenon can also be explained by Braess's paradox, whereby "adding extra capacity to a network, when the moving entities selfishly choose their route, can in some cases reduce overall performance" (http://en.wikipedia.org/wiki/Braess%27s_paradox).

So what is the best strategy for deciding which patients to refer for specialist opinion? Maybe one day we will have a reliable and valid test to help identify cancer patients in primary care. Until then, general practitioners should make a provisional diagnosis on the basis of a history and a physical examination, paying particular attention to genetic predisposition, exposure to carcinogens, and the type and duration of symptoms. Effective lines of communication between general practitioners and cancer specialists or networks will help to relay these clinical details, leading...
to earlier and more accurate diagnosis. Technological innovations that facilitate this process without being intrusive or cumbersome in practice may be more successful than published guidelines or schemes to ration urgent appointments only to those with a limited list of signs and symptoms.


Are health services in England failing our children?
Poor outcomes for major childhood diseases reflect the low status of children's NHS services

In 2004, the UK government launched the national service framework for children in England.1 It contained a comprehensive set of standards for children's health services and a 10 year timescale for implementation. The framework was welcomed as the first real blueprint for children's health since the Court Report2 almost 30 years before. But with no extra money and no specific targets for health professionals or managers, progress has been slow. Children have been given a low priority, and managers are distracted by high profile government targets for emergency waiting times and surgical waiting lists. There is now real concern and increasing evidence that the National Health Service (NHS) is failing children.

The Healthcare Commission recently produced "Improving services for children in hospital,"3 a review of progress on national service framework standards in England. In 2006, only 4% of trusts were rated excellent and 21% were rated good. While the commission reported considerable progress in improving the hospital environment for children, their review noted a worrying potential for unsafe medical care. Surgeons trained to operate on adults were operating on children, many on only a handful each year. In a small number of NHS trusts too few trained staff were available to provide effective life support for children during the day. One in five trusts was unable to deal effectively with paediatric emergencies at night.

Children in England with diseases such as diabetes and cancer generally do badly, when compared with their peers in the rest of Europe. We have, for example, one of the highest incidences of type 1 diabetes and one of the worst records on diabetic control.4 This could be linked to differences in lifestyle and diet, but poor services are probably at least partly to blame.5 Good diabetic control is vitally important for children because we know that late complications of diabetes in adult life are determined by what happens in childhood. Our inadequate children's services are inevitably stowing up problems for the future and we can avoid them only by investing in better care now. Unfortunately, "short termism" has so far prevailed.

The picture is similar for children with cancer. According to recent estimates, children with cancer in Britain have a five year survival rate of 71%, compared with 77% for Scandinavian children and 75% for children elsewhere in western Europe (France, Germany, Netherlands, and Switzerland).6 British children possibly wait longer for diagnosis and referral to specialists. In Germany, for example, more than 27% of Wilms' tumours are picked up by routine health surveillance by primary care paediatricians.7 This compares with less than 10% in the United Kingdom, where surveillance has been slimmed down, is largely done by nurses, and does not include abdominal palpation at regular intervals. Many office paediatricians in Germany have their own ultrasound machines and are trained to use them.

Our care of newborns also gives cause for concern. The Department of Health has recently reviewed the public services agreement target on health inequalities and infant mortality. The target aims by 2010 to reduce by at least 10% the gap in infant mortality between the socioeconomic class labelled the "routine and manual occupational group" and the English population as a whole.8 The NHS is falling behind in efforts to improve this important indicator of care during the antenatal and perinatal periods, and in the first year of life. England now lies 15th in the European league table for perinatal mortality. Much hope was built around the establishment in 2004 of neonatal networks of care—linked professional groups working across primary, secondary, and tertiary care to ensure equitable and clinically effective services—these have proved hard to establish and coordinate in the real world without adequate national direction and funding.9

All is not lost, however. For example, there have been substantial improvements in community child and adolescent mental health services during the past
Neglected tropical diseases
These diseases could be controlled or eliminated in our lifetimes if efforts are better coordinated

In 2002 one of us wrote an editorial in the BMJ entitled "The world’s most neglected diseases," referring to 13 ancient tropical infections of the poor (box). These diseases are disabling, disfiguring, and stigmatising; they impair children’s physical and cognitive growth; they promote poverty; and many of the drugs used to treat them are toxic, difficult to administer, and are more than 50 years old. Five years ago, there was little good news to report. But recently there has been a radical revolution in the attention being paid to these diseases.

We see several reasons for optimism. Firstly, the long held belief that it is not economically feasible to develop drugs, diagnostic methods, and vaccines specifically for the neglected tropical diseases has now been shattered. Although these conditions exclusively affect the world’s poorest people, product development partnerships have been established for at least six neglected tropical diseases in the past seven years without commercial markets or conventional business models, and several new drugs and vaccines are in the pipeline.

This increase in drug development activity is not a passing trend. Moran and colleagues surveyed the landscape of drug development for neglected tropical diseases and found that 53 drug projects were under way at the end of 2004 (although some of these were for malaria and tuberculosis, diseases that are not considered to be among the most neglected). On the basis of current progress, the prospects are promising.

Main neglected tropical diseases
Protozoan infections
Human African trypanosomiasis
Visceral leishmaniasis
Chagas disease
Helminth infections
Soil transmitted helminths
hookworm, ascariasis, trichuriasis
Schistosomiasis
Lymphatic filariasis
Onchocerciasis
Dracunculiasis
Bacterial infections
Trachoma
Leprosy
Buruli ulcer
The penny has finally dropped among donors—they have realised that because chronic parasitic diseases leave people mired in poverty, controlling these diseases will help to achieve the Millennium Development Goal of halving the proportion of people living on less than a dollar a day by 2015 (www.undp.org/mdg/). Lympathic filariasis, for example, is responsible for the loss of 0.63% of India’s gross national product, while the global annual loss of productivity related to impaired vision and blindness from trachoma is as high as $5.3bn.10

The United States Agency for International Development has recently awarded a $100m grant to scale up integrated control of neglected diseases in Africa.11 This amount, however, is still less than 10% of the funds needed in sub-Saharan Africa alone for widescale implementation of interventions for neglected tropical diseases.12

One problem facing the community working on controlling neglected tropical diseases is the lack of communication between the various players—researchers, policy makers, clinicians, public-private partnerships, donors, and patient advocacy groups. Finally, we have an online tool for such communication—the world’s first journal specifically devoted to these diseases. The Bill and Melinda Gates Foundation has awarded the Public Library of Science a grant of $1.1m to launch in October 2007 PLoS Neglected Tropical Diseases (www.plosntds.org), an open access, non-profit journal. One unusual feature of the journal is that, unlike other tropical medicine journals,13 40% of the editors who handle peer review are from countries where the neglected tropical diseases are endemic.

1 Yamé G. The world’s most neglected diseases. BMJ 2002;325:176-7.