

Discussion paper

Targets and prioritisation: the case of cancer in the English NHS

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ABSTRACT

From 1999 onwards, patients judged by their general practitioners (GPs) to require urgent access to care for suspected cancer have been referred under the so-called two-week wait rule, or fast track, which guaranteed that they would be seen in a hospital clinic within that period. The two-week wait was introduced in the belief that England's relatively poor cancer outcomes were due, at least in part, to

delays in accessing care. This paper assesses the impact of the two-week wait against a number of criteria. Although the NHS has largely succeeded in meeting this target, there is little evidence that it has improved outcomes.

Keywords: cancer, fast track, referral guidelines, two-week rule, two-week wait

How this fits in quality in primary care

What do we know?

The two-week wait was introduced in England to increase timeliness of referral of patients with suspected cancer to specialist care and improve outcomes for cancer.

What does this paper add?

The target has been met but whereas referral has been quicker for those referred by this route there has been little benefit on overall speed of treatment or outcomes for most cancers.

Introduction

This paper examines the impact on the English National Health Service (NHS) of one target 'the two-week wait rule'. This introduced a fast track for people with suspected cancer judged to be 'urgent' by their general practitioner (GP), requiring them to be seen within two weeks of the initial referral. Other maximum waiting time targets covering later parts of the patient pathway (diagnosis and treatment) were also introduced, but are not considered here.

The perceived need to create a fast-track referral system stemmed from the belief that some patients in England accessed specialist care too late in the pro-

gression of their disease.¹ As a consequence, the outcomes of cancer care were worse than those of comparable countries in Europe and elsewhere.² It was therefore important to speed up patients' access to care through the creation of a fast track for those considered to be urgent cases.

Prior to the introduction of the two-week wait, GPs did categorise patients into urgent and routine, but it was left to hospital consultants to determine how quickly patients should be seen. The two-week wait moved that discretion from consultants to GPs and set a specific maximum waiting time, with associated

national monitoring and performance management, within which an initial consultation should take place.

The Department of Health issued guidelines³ in 1999 to help GPs in making referral decisions and these were reissued in 2004 by the National Institute for Health and Clinical Excellence (NICE).⁴ But these still required clinical judgement as to whether observed symptoms indicated cancer or some other condition and whether treatment was urgently required or not.

Assessing the success of the two-week wait rule

The government did not set explicit criteria by which it would judge the success of the two-week wait. However, as a matter of logic, the policy has a number of different potential success criteria, some of which are easier to measure than others.

These are:

- Compliance with the target: whether patients being referred under the two-week wait are actually seen within two weeks.
- Impact on timeliness: whether cancer patients are now being seen more quickly than before.
- The accuracy of patient selection: this could be understood as successfully minimising both 'under-use' and 'over-use' of the two-week wait referral pathway. The pathway would be over-used if a high proportion of patients referred down the pathway proved not to have cancer and under-used if only a small proportion of patients with an urgent need for treatment were referred urgently.
- Impact on clinical outcomes: whether survival rates improve or, as a proxy for that, whether the clinical stage at which cancer is diagnosed is reduced.
- Impact on patients accessing care by other routes: whether routine referrals or patients diagnosed through other routes have longer waits or poorer outcomes.

This paper looks at each success criterion in turn to assess the evidence available.

Sources of data

We based our assessment of the effectiveness of the two-week wait on a combination of national data, principally from the National Cancer Intelligence Network, and a number of studies usually carried out at individual hospitals and of particular cancers using their own clinical data. These studies were identified through an extensive, although non-systematic, literature search and where possible, we have relied on existing systematic reviews of this material. There is a

larger volume of unpublished audits at hospital level. A review by the University of York⁵ concluded most were of poor quality so we have made no use of them here.

Compliance with the target

The only systematic monitoring since the two-week wait became effective concerns the proportion of those referred via the two-week wait who were seen within the two-week limit. By 2003, the two-week wait target had been achieved in 99% of cases and compliance has remained high. The latest data, for 2010/11 show a compliance rate of 95.5% with figures for individual cancers ranging from 93.8% for suspected upper gastrointestinal cancer to 97.6% for lung cancer.⁶

Impact on timeliness

Data on waiting times were not systematically collected before the targets were introduced. An ad hoc survey⁷ found that before the two-week wait rule was introduced, patients referred as urgent cases by their GP were already gaining access more quickly than non-urgent cases. However, there was substantial variation between different parts of the country and different cancer sites. Spurgeon *et al*'s survey did not demonstrate how well GPs selected urgent patients.⁷ There is, therefore, no baseline against which to measure the changes brought about by the introduction of the two-week wait rule on the overall timeliness of access.

The volume of patients referred down the fast track has increased rapidly in recent years – by 44% between 2006/7 and 2009/10 – more rapidly than the total number of patients referred during this period.⁸ These data suggest that over this period speed of access may have increased since a higher proportion of patients gained rapid access. However, this would only be true if any gain at the initial referral stage translated into a gain in overall waiting time.

However, a number of studies have found that delays further along the pathway offset the gains from the speedier access to the initial hospital consultation that the two-week rule is intended to produce. For example, a study of patients with breast cancer in south-east England⁹ found that waiting times from GP referral to first hospital appointment improved after the introduction of the two-week wait. Times from first appointment to treatment increased, and consequently total waiting times were little changed.

These findings might be attributed to the difficulties cancer service providers initially found in adjusting to the targets for referral to treatment times. However, a more recent study of appointment to treatment delays in a single institution¹⁰ found that while the two-week rule had shortened waiting times for a first appointment, overall times had not fallen.

Accuracy of patient selection

The NHS Cancer Plan¹ did not set targets or standards either for the proportion of patients that should be referred via the two-week wait or the proportion of those who would be found to have cancer. Two main conclusions about the quality of patient selection can be drawn from the available national data.

First, the proportion of two-week wait patients with cancer has fallen from 13% in 2006/7 to 11% in 2009/10.⁸ This suggests that patient selection has worsened rather than improved in recent years. However, there is considerable variation around the figure between cancers and GP practices.

Second, only a minority of all cancer patients are referred down the two-week wait pathway. The latest national data (for 2007) suggest that, overall, 25% are identified in this way but again, there is a considerable variation between cancers and between practices.¹¹ Whether this low proportion reflects under-use by GPs of the two-week wait pathway cannot be established on the basis of national data.

There is some evidence that GP selection improved in the years following the introduction of the two-week wait.¹² But there is also evidence that some GPs ignored the guidelines, were unaware of them, did not apply them^{13,14} or did not perform basic examinations, such as digital rectal examination in the case of possible rectal cancer.¹⁵ These findings help to explain the large variations noted above in the use of the two-week wait between practices.

There is also evidence that the guidelines themselves were not effective at identifying cancer. For example, Allgar *et al* concluded that ‘The predictive power of the referral guidance as a marker for cancer is low, resulting in significant numbers of patients being urgently referred without cancer’.¹⁶ Similarly, Rai and Kelly found that ‘Audits across the UK have shown an overall poor specificity of the guidelines themselves, and it is now becoming increasingly clear that patients can meet the national guidelines and still be regarded by the recipient consultant as an “inappropriate fast-track referral”, while patients who do not meet the guidelines can present with symptoms that lead to the same consultant having a high suspicion of colo-rectal cancer appropriate for urgent evaluation’ (p. 198).¹⁷

Impact on clinical outcomes

The National Cancer Intelligence Network (NCIN) has published data for the outcomes of patients with breast cancer broken down by route to diagnosis⁸ although similar data are not yet available for other cancers. On average, those accessing care by the two-week wait have higher one-year survival rates than those accessing care by other routes – apart from screening. However, the difference between the two-

week wait and other GP referrals is small, except in respect of patients aged over 85 years. For this group, the one-year survival rate for emergency admissions is much worse than any other route. Comorbidities are more common among the elderly and the existence of comorbidities reduces the chances of a successful outcome.¹⁸ In addition, comorbidities can make it harder to identify whether a patient has cancer or not, so diagnosis may be delayed. These factors could provide an explanation of their poorer outcomes.

The usual test of whether or not a patient is ‘late’ for treatment is the stage of their disease when treatment is commenced. For the two-week wait to be effective, in these terms, the stage at which patients were identified should have fallen since its introduction. National data on stage are not yet available. Pacifico *et al*¹⁹ found that the two-week wait had been effective in these terms in respect of skin melanomas and that outcomes had improved, but local studies of other cancers have found that the two-week wait did not identify more early stage cancers.^{20–25}

Impact on patients accessing care by other routes

For routine GP referrals and for those accessing from screening, through A&E departments or from other consultants, the question is whether the improvements – if any – for two-week wait patients were at their expense.

A review of the effect of the two-week wait target on breast cancer patients in one hospital²⁶ found that waiting times had risen for routine referrals and attributed this to the need to ensure the target was met for two-week wait patients. Meeting the target for a smaller number of patients had made the situation worse, in terms of access times, for the larger remainder and also for patients not suspected of cancer but needing access to the same resources. Similar results have been found from other studies.^{27–31} However, the referral to treatment targets set for all patients limit the extent of any delay shifting on to patients not referred under the two-week wait rule.

The delays to non-two-week wait patients may, however, not have affected their outcomes. Bevis *et al*³² found that routine referrals were seen more slowly than two-week waits, but they also found no association with disease stage or a lower rate of potentially curative surgery. Similarly, Neal *et al*³³ found that no difference in survival for colo-rectal, prostate or ovarian cancer between two-week wait and non-two-week wait patients. This study did find a relationship for lung cancer – two-week wait patients did less well – presumably because those with advanced and untreatable disease were easier to identify and refer urgently.

Discussion

The evidence presented in this paper suggests that the two-week wait rule cannot be judged to be effective in its primary aim of improving outcomes. This may not be valid across the country as a whole. The National Audit Office study⁸ showed that there is considerable variation between areas and between GP practices. It found that the proportion of referred patients found to have cancer varied between 7 and 20% between primary care trust (PCT) areas and between 5 and 45% between GP practices. These data suggest that some GPs in some parts of the country are making effective use of the two-week wait, whereas others are not. The National Audit Office notes that there has been no evaluation of the causes of variation or on its impact on outcomes.

However, it is hard to come to firm conclusions given the limitations of national monitoring data already discussed (particularly the lack of a baseline for waiting times and the lack as yet of stage at diagnosis data linked to route to diagnosis). As the National Audit Office pointed out, establishment of the NCIN has led to significant improvements and it is beginning to provide a more detailed and useful picture of the evidence needed to judge the impact of the two-week wait.

The two-week wait remains in place. The government has, however, acknowledged the need to focus on additional measures for reducing delay, particularly awareness campaigns to promote earlier patient presentation and easier access for GPs to diagnostics. How effective in cost and clinical terms these could be remains to be demonstrated, but recent international analysis³⁴ of the impact of GP gatekeeping suggests that diagnostic delay may explain the relatively poor performance of the UK cancer system.

Assuming that trusts continue to deliver high levels of compliance with the target, the effectiveness of the two-week wait in clinical and cost terms is determined by the quality of patient selection onto that pathway. If this is to improve, it is important to further refine the referral guidelines with evidence about which symptoms are most indicative of cancer. It will also be important to support GPs to conduct benchmarking, peer review and audit of their cancer referrals to identify and tackle poor performance.³⁵ The scale of variation between areas suggests that these approaches offer major scope for improvement.

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