Waiting for elective admission
Review of national findings
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References
Introduction

1 Almost 40 per cent of hospital admissions involve non-emergency patients who have been on a waiting list, mostly for a surgical operation. At any one time, about 1 million people are waiting for admission in England and a further 75,000 in Wales. Although the average time patients wait once it is decided that admission is necessary is just three months, in 2001/02 one in every ten patients waited more than nine months.

2 Waits dominate many peoples’ impressions of NHS hospital care. While they are waiting, patients may be in considerable pain and discomfort that interferes with their normal lifestyles and adds to the workload of primary care. Uncertainty can cause additional worry. In some cases, the patient’s condition may deteriorate.

3 The NHS Plan (Ref. 1) and subsequent initiatives in England set out ambitious targets for:
   - reducing the longest time that any patient has to wait for admission to six months by the end of 2005, with shorter waits for those with urgent conditions;
   - improving patient choice by agreeing all admission dates in consultation with the patient as soon as it is decided that admission is necessary;
   - re-admission within 28 days following any last-minute cancellation; and
   - guarantees to patients on treatment at an alternative location of their choice if these waiting time and cancellation targets are not met.

Targets in Wales include waits for admission of no more than 18 months by March 2004. More stringent targets have been set for those NHS trusts where this has already been achieved and for some types of operation: for example, a maximum wait of ten months for cardiac surgery and four months for cataracts.

4 Many trusts have successfully reduced the longest waiting times. They have been assisted in this by national bodies, such as the NHS Modernisation Agency in England or Innovations in Care in Wales, and by provision of additional capacity in DTCs (diagnosis and treatment centres) and primary care, or through the Patient Choice Initiative. Nationally in England, the proportion of longer waits has been falling for some years. Total waiting lists, which remained stubbornly long, were reported to have fallen below 1 million in the final quarter of 2002/03. In Wales, list sizes are bigger than in England in relation to the population, waits are longer and both are still rising (Exhibit 1).
Exhibit 1
Trends in numbers waiting for elective admission
Many trusts have successfully reduced the longest waiting times, although longer waits are still common in Wales.

This review is written primarily for trust managers, but is also intended to be accessible to a wider audience. It is based on data collected by the Audit Commission from all NHS trusts providing acute services in the summer and autumn of 2002, for use in its local Acute Hospital Portfolio audits (see back cover for more details). Further data are drawn from NHS returns to the Department of Health and Welsh Assembly Government, and analyses of 2001/02 Hospital Episode Statistics (HES) data and Patient Episode Data for Wales (PEDW). It is one of four national reviews in the Acute Hospital Portfolio series being published simultaneously. The others cover Bed Management, including emergency admissions, Operating Theatres and Outpatient Services. Like these, this review focuses on the performance of acute service trusts, but it recognises that many improvements depend on collaboration with a range of other bodies.

This work complements other Audit Commission and National Audit Office activity to assess achievement against the NHS Plan in England and to ensure that the data used to monitor waiting times are accurate (Refs. 2-5). The Commission’s recent data quality and spot check audits of waiting list statistics are relevant here, because many of the findings of this review are based on data derived, directly or indirectly, from the same records. But although auditors found weaknesses in the systems used to record and calculate waits at many English NHS trusts that could cast doubts on whether all patients were treated within target times, they concluded that the level of accuracy would generally be adequate for appropriate patient management and for establishing the kind of broad trends and relationships examined in this review.

Source: Department of Health Waiting List Statistics based on KH07 returns (England) and NHS (Wales) Integrated Data Returns
This review first discusses variations in waiting times and their implications for achieving government targets. It suggests that there may be better ways than existing headline waiting lists figures to demonstrate how long patients actually wait for an elective admission. It notes that non-urgent patients may have very different experiences of waits for the same procedure at the same NHS trust. In this area, its findings echo and extend those of another recent Audit Commission report on access to ear, nose and throat services. It then shows that the proportions of elective admissions that are cancelled or deferred at short notice vary markedly from trust to trust. It reports substantial differences in the ways that waiting lists are managed, including the management of suspensions and removals from waiting lists without treatment. The final section considers whether capacity is keeping up with demand and whether any tentative conclusions can be drawn, from the data collected, on the influence of a number of key factors on elective waiting times. More details of the underlying statistics are available on the Acute Hospital Portfolio section of the Audit Commission website (www.audit-commission.gov.uk).

Waiting times

According to the published statistics, the great majority of English trusts have met the new 12 month maximum target waiting time. These successes have been facilitated by new, centrally promoted approaches to waiting list management, such as Primary Targeting Lists (PTLs), which show the latest dates by which long-waiting patients need to be treated if forthcoming targets are to be met. The Modernisation Agency and Innovations in Care are also working closely with trusts to tackle the root causes of long waits, including cancelled operations.

However, there is substantial variation in the percentages of patients who have been waiting for less than six months – the target maximum wait by 2005 (Exhibit 2). Longer waits are not confined to any one part of England or Wales (Exhibit 3, overleaf) although there are black spots, particularly in south Wales and south east England. During 2003/04 each trust in England must reduce the number of patients waiting more than six months for admission by 40 per cent. But, during 2002, this number fell by just 8.6 per cent nationally. Indeed, at over one-third of trusts, more people had been waiting over six months for admission at the end of the year than at the beginning. This suggests that some hospitals will find it difficult to eliminate waits over six months within the three remaining years to December 2005. For those trusts with the longest inpatient waits, the backlog alone is equivalent to 39 weeks of admissions at the current rate, although some of these will benefit from additional planned local capacity. It is important to monitor locally how targets are achieved to ensure that this accords with national guidance on clinically prioritised waiting lists. Targets must not be met at the expense of longer waits for those patients who should have clinical priority.

During 2003/04 each trust in England must reduce the number of patients waiting more than six months for admission by 40 per cent. But, during 2002, this number fell by just 8.6 per cent nationally.

Some ‘pathfinder’ trusts in England are working to a more exacting timetable. And, as previously noted, different waiting time targets apply in Wales.
Exhibit 2
Patients waiting less than six months for admission
Although most English trusts met the 12 month maximum target waiting time, there is great variation in percentages of admissions within 6 months.

Sources: Department of Health Waiting List Statistics based on KH07 returns and NHS (Wales) Integrated Data Returns 31 March 2003

Headline figures focus on the total number of patients awaiting admission for a whole trust. But, in reality, each trust operates many different waiting lists, divided by hospital, specialty, procedure or individual consultant. The extent to which trusts attempt to co-ordinate these waiting lists varies markedly and is discussed later in this review.
Exhibit 3
Localities where longer waits for admission occur

Longer waits are not confined to any one part of England or Wales.

- Trusts in the lowest (poorest) quartile of performance for patients waiting less than six months for elective admission
- Other below average trusts
- Other trusts

Note: Some trusts have been divided into separate management units for which results are shown separately.

Sources: Department of Health Waiting List Statistics based on KH07 returns (England) and NHS (Wales) Integrated Data Returns – 31 March 2002
Nationally, waiting times vary significantly between the main elective surgical specialties (Exhibit 4). For example, 32 per cent of orthopaedic patients wait more than six months for admission in England, compared with 17 per cent of urology patients. Such variations are explained in part by differences in the urgency of treatment under each specialty, but also reflect differences in capacity and management. This means that the increase in throughput that would be needed to meet NHS Plan targets varies between specialties. So an average of 9 per cent more inpatient or daycase activity nationally would be needed to meet the six month wait target in orthopaedics, compared with just 2 per cent in urology. Developing new ways of working and provision of additional capacity to carry out shorter-stay procedures in specialties that have long waiting times is therefore a major focus for many of the new DTCs (Box A, overleaf).

Exhibit 4
Variation in waiting lists by specialty
Nationally, waiting times vary significantly between the main elective specialties.

Sources: Department of Health Waiting List Statistics based on KH07 returns – December 2002 (England) and NHS (Wales) Integrated Data Returns – February 2003
Box A

**Diagnosis and treatment centres**

Diagnosis and treatment centres (DTCs) are being created in England to:

- provide additional bed, theatre and clinical capacity in order to reduce waiting times for short-stay, daycase and outpatient elective procedures;
- improve patient convenience and choice by bringing together facilities for consultations, diagnostic tests and treatment in the same location;
- protect elective procedures from disruption resulting from surges in emergency demand; and
- improve efficiency of treatment of elective conditions.

By March 2003, 14 DTCs were open. These were provided by NHS acute or primary care trusts, in one case with private sector involvement. Another 33 DTCs are scheduled for completion by 2005. Alongside these, bids for provision of facilities and/or surgical teams in a further 11 DTCs have been invited from the independent sector, and expressions of interest for 5 schemes from both UK and overseas healthcare providers.

The range of services and specialties provided by the first DTCs varies considerably. Many of these schemes were selected from proposals already in the pipeline so as to maximise the speed with which they could be commissioned. They are therefore not always located in those areas of the country where elective waiting times are longest, although those now in development reflect the findings of local capacity planning exercises. However, the intention is that DTCs will concentrate on those high volume procedures for which there are the greatest unmet local needs and, where possible, also build on existing local clinical strengths.

The NHS Modernisation Agency is working with trusts on unresolved issues, such as whether:

- DTCs will be able to attract and retain the additional clinicians and support staff required without detriment to existing NHS hospitals;
- working practices can be devised that maximise the benefits of specialisation and flexible use of resources; and
- patients can be transferred to DTCs from other trusts’ waiting lists without destabilising the financial position of these existing trusts.

Trusts and clinicians will need to work together to ensure that the benefits of new PCTs are not diluted by rising demand for treatment arising from reductions in perceived waiting times.
Because of such specialty differences, specialty mix has to be taken into account when comparing the waiting time performances of trusts. NHS trusts that perform poorly on waiting times for one specialty are not necessarily poor in other areas (Exhibit 5). Nevertheless, it would appear that there are factors that influence waiting time performance across all specialties within a trust. The influence of differences between trusts in the availability and utilisation of beds and operating theatres, for example, are explored at the end of this review.

Exhibit 5
Variation in waiting lists by specialty: patients waiting less than six months for admission

Although trusts with poor waiting times for one specialty are not necessarily poor for another, there are common factors.

Note: The insert shows two selected trusts in comparison with national averages for all six main elective specialties.

Source: Department of Health Waiting List Statistics based on KH07 returns (England) and NHS (Wales) Integrated Data Returns – March 2002
There is more than one way to measure waiting times. No single set of data is ideal for both local planning of activity and capacity requirements and for national performance monitoring.

Time from decision to admission – an alternative focus on waits

There is more than one way to measure waiting times, and the most meaningful way to present this information has long been under consideration by the Department of Health and other bodies. The most publicly available waiting time data still focus on list sizes. They show how long patients who are on a waiting list at the end of a quarter (or month) had been waiting for admission up to that time. Such figures are essential for local planning and, assuming that they are accurate, can demonstrate whether maximum waiting time targets were being met at that particular date. However, they do not show how long patients had waited by the time that they were actually admitted, and so may not accord with patients’ own experiences of waiting (Exhibit 6). Nor are they necessarily the best way to monitor progress towards the achievement of more exacting targets. In particular:

- shorter waits are under-represented in these published data, as patients who are admitted quickly may miss the ‘census’ dates entirely. Longer waits are counted in several censuses and so may be over-represented; and
- conversely, only part of longer waiting times is counted in the published data which show how long patients had waited only up until that census date, not the total amount of time they waited until they were admitted.

However, in many trusts and specialties, percentages of patients who waited less than six months for admission during 2001/02 were higher (that is, seemingly better) than those of patients waiting for less than six months at the end of the year.

A further issue is whether waiting time information that is presented to the public should, as happens at present, exclude any periods during which patients are suspended from the waiting list (because they are judged not to be ready for admission) and omit patients who defer admission. However, while many deferrals and suspensions are for medical or social reasons that are wholly or partially outside the control of trusts, to the patient it is often the total elapsed time since they were told that an admission was necessary that matters. This distinction may become less important as more admissions are booked at the outset for a firm date.

There is no single set of data on elective waits that is ideal for both local planning of activity and capacity requirements and for national performance monitoring (Box B, overleaf). The current data have some advantages for management and local planning at a specialty level. They are less useful when comparing performance across a large number of trusts. One possibility might be to collect data on both patients awaiting admission and completed inpatient waits, as happens in Northern Ireland. But there is understandable reluctance in England and Wales to make trusts complete more data returns unless the benefits are indisputable. A further consideration is how best to summarise waiting time information so that it is meaningful to patients and to the public, and also useful for monitoring and comparing the performance of each hospital. For such purposes, it might be better to focus on how long patients have to wait for each of the most common waiting list and urgent procedures, rather than collecting data covering the full range of dissimilar

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I Data on the lengths of time from the decision that admission was required until it occurred are available from Hospital Episode Statistics (HES, and PEDW in Wales). But neither the timeliness nor the content of published extracts from these databases are sufficient for routine comparative monitoring.

II Northern Ireland also avoids controversy over the accuracy of excluded periods of suspension from outpatient waiting times by producing data on total waits but in two ways: (a) including all patients; (b) including only those patients who were never suspended or deferred.
procedures undertaken by each specialty. Data on median (and maximum) waiting times for each of these procedures might then be easier to assimilate and compare than numbers of patients in each waiting time band. As an alternative, or in addition, it might also be useful to publish separate waiting time distributions for urgent and for non-urgent waiting list admissions.

Exhibit 6
Comparing different waiting time measures (orthopaedic patients waiting less than six months for admission)
The regularly published data may not accord with patients’ experience of waiting.

Note: The line represents equal percentage values.

Source: HES/PEDW Data (2001/02) and Department of Health Waiting List Statistics based on KH07 returns (England) and NHS (Wales) Integrated Data Returns – March 2002
Box B
Different ways of measuring how long patients wait for admission: merits and disadvantages

No single set of data is ideal for all users of this information.

1. ‘Census’ or total wait for admission

<table>
<thead>
<tr>
<th>Considerations</th>
<th>Time on waiting list (census)</th>
<th>Time from decision to admission</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Represents experience of waiting list patients ⇔</td>
<td>−</td>
<td>[✓]</td>
<td>Census over-counts some waits and omits others. But time to admission omits any patients that are never admitted</td>
</tr>
<tr>
<td>Shows extent of backlog and provides a basis for planning activity and capacity ↓</td>
<td>[✓]</td>
<td>−</td>
<td>Not all trusts are yet able to produce accurate and complete data on time from decision to admission</td>
</tr>
<tr>
<td>Up-to-date analysis – no time lags ⇔</td>
<td>[✓]</td>
<td>−</td>
<td>Time to admission masks recent trends</td>
</tr>
<tr>
<td>Assessment of progress towards achievement of intermediate targets ⇔</td>
<td>−</td>
<td>[✓]</td>
<td>Census assesses achievement only if target must be met for all patients</td>
</tr>
<tr>
<td>Shows whether performance against targets is sustained throughout each reporting period ⇔</td>
<td>−</td>
<td>[✓]</td>
<td>Census data typically fluctuate more, both through the year and at the end of each reporting period</td>
</tr>
<tr>
<td>Incentive for prompt admission of long-waiting ‘neglected’ patients ↓</td>
<td>[✓]</td>
<td>−</td>
<td>Time from decision to admission enables trusts to postpone counting long-waiting patients until admitted</td>
</tr>
<tr>
<td>Shows whether the list is being managed in line with clinical priorities ⇔</td>
<td>[✓]</td>
<td>[✓]</td>
<td>Census omits some short waits</td>
</tr>
</tbody>
</table>

2. Including or excluding periods of suspension from the waiting list

<table>
<thead>
<tr>
<th>Considerations</th>
<th>Excluded (current census)</th>
<th>Included</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less scope for list manipulation ⇔</td>
<td>−</td>
<td>[✓]</td>
</tr>
<tr>
<td>Represents experience of waiting list patients ⇔</td>
<td>−</td>
<td>[✓]</td>
</tr>
<tr>
<td>Focuses only on waits that are fully within the control of the trust ↓</td>
<td>[✓]</td>
<td></td>
</tr>
</tbody>
</table>

Notes: ↓ Considerations that are most important for local planning and management. ⇔ Considerations that are more important for wider monitoring of comparative progress. Judgements on the waiting list based indicator assume the current frequency of ‘census’ returns.

Source: Audit Commission. The framework (but not all of the conclusions) is adapted from one provided by Checklist Ltd.
From referral to treatment

16 Waits from the decision to admit to actual admission are, of course, only one part of the total waiting experience for most patients. For them, ideally waiting times should be calculated based on the total wait from their first referral to an outpatient clinic to the date that they are treated, including the time they waited for any diagnostic tests. The Department of Health’s Review of Waiting and Booking Information should be a first step in this direction. However, linking outpatient and inpatient episodes for more than very small data sets poses almost insuperable problems for most trusts’ IT systems at present. Also, if such total waits were ever proposed as the basis for performance comparisons or targets, the benefits in some cases of a period of ‘watchful waiting’ before admission would need to be recognised.

17 At present, all that can be noted is that trusts with longer waits for an orthopaedic or general surgical admission also tend to have somewhat longer waits for a first outpatient appointment in these specialties1 (Exhibit 7, overleaf). Despite this, many trusts have above average waits for a first outpatient appointment, followed by below average waits for admission, or visa-versa. In other words, we found no evidence to support the hypothesis that long waits for admission occur principally in trusts that have concentrated on achieving short waits for an outpatient appointment. But in urology, for example, long waits for admission are associated with more outpatient follow-up appointments, thereby increasing treatment costs, as well as possibly reducing quality of patient care.

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1 These apparent relationships are between aggregated indicators, not the waits experienced by specific patients for an outpatient appointment and admission; statistical correlations are weak.
Exhibit 7
Waits for an outpatient appointment and for admission

The wait for a first outpatient appointment is only slightly related to that for admission. 

Admission of non-urgent patients in order

Even within one trust, non-urgent patients can wait very different lengths of time to be admitted for the same procedure (Exhibit 8). There may be clinical or operational reasons for prioritising the admission of a minority of patients. However, large variations in the time that the remaining patients wait suggest that some non-urgent patients are also being admitted ‘out of turn’. This is unfair for patients. It is also a major factor in failures to meet maximum waiting time targets. And, if patients are called for admission at short notice, it may also result in inefficient use of resources and more cancellations.
Non-urgent patients at the same trust may wait very different times for the same procedure.

Selected trusts (those with highest volumes of hip replacements)

<table>
<thead>
<tr>
<th>Months from decision to admit to admission</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
</tr>
<tr>
<td>24</td>
</tr>
</tbody>
</table>

Source: Audit Commission from HES/PEDW data: 2001/02 – (Procedure W37)

The ‘shapes’ of waiting lists according to the duration of wait for individual procedures have been used in many trusts to investigate whether their patients are being admitted in an appropriate order. However, it is not easy for trusts to compare this aspect of their performance with that of other trusts, or to monitor change, using information in this form. A fresh approach is needed to encapsulate in a summary indicator key features of the ‘shapes’ of waiting lists for the most common surgical operations; one possibility is described in the appendix to this review. These indicators could be used to trigger audits if there is concern about whether non-urgent patients are being treated ‘in-turn’. Such audits might suggest a need to:

- establish and promote common procedures for administering waiting lists across the trust;
- reach local consensus among surgeons about the circumstances that justify urgent admission for the more common procedures; this could be facilitated by sharing benchmarking data on what percentages of each of the main elective procedures are classified as urgent;\(^1\)
- secure local agreement on procedures for which individual consultants’ lists could be pooled;
- make more information available to patients and GPs about which local consultants have the shortest waits for treatment of each common procedure; and
- appoint a co-ordinator to ensure that any spare resources are used to best effect.

\(^1\) Data analysis by Checklist Ltd suggests that, in a few hospitals, fewer patients are being prioritised for rapid admission than would be expected on the basis of these urgency profiles, while waiting times for all operations, including less urgent ones, are within the 12 months maximum. One possible explanation for this is that clinical priorities are sometimes distorted to meet national waiting list targets. Further investigation is needed.
Cancelled admissions

Cancellation of an elective admission at short notice can be very distressing for patients, regardless of how long they have waited. It also wastes resources. During the six-week sample period in May to June 2002 surveyed by the Audit Commission, NHS trusts in England and Wales stated that:

- over 16,500 elective admissions\(^1\) were cancelled by hospital managers or clinicians within one week of the intended admission date;
- a further 3,800 patients were discharged without treatment because their operation was cancelled only after they had been admitted; and,
- in addition, more than 13,000 admissions were cancelled or deferred at short notice by patients (this could include instances where a patient was given insufficient notice of an admission date).

In all, an average of 6 per cent of intended elective admissions or procedures was cancelled by managers or clinicians during the sample period (Exhibit 9). But there was wide variation: at some trusts more than one in four were cancelled. If cancellations by patients are included, over 10 per cent of activity planned a week ahead did not take place, with rates approaching 40 per cent at some trusts. Clearly such a lack of predictability is as disruptive to the efficient operation of the trust as it is for patients.

Exhibit 9

Cancelled admissions

On average, about 6 per cent of intended elective admissions or procedures are cancelled within a week of admission by managers or clinicians, but there are wide variations.

\[\text{Percentage of planned elective activity cancelled by trustclinicians}\]

Notes: These figures include cancelled non-emergency admissions in all specialties, medical as well as surgical, and also cancellation of intended procedures after admission resulting in discharge without treatment.

The chart excludes cancellations by patients and does not show any results for a few trusts/subtrusts that could not provide these data.

Values differ from data produced by either the Department of Health or the NHS Modernisation Agency because of definitional differences: for example, the indicators shown here are not confined to surgical operations and include cancellations occurring over different periods prior to and after admission. The Audit Commission believes that its definitions result in indicators that are more representative of comparative patient experience.

Source: Audit Commission Survey (England & Wales) – six-week sample period: May-June 2002

\(^1\) Excludes a minority of NHS trusts (representing 6 per cent of relevant admissions) that were unable to provide these cancellation data.
22 The reasons for these cancellations are either:
   • non-clinical: cancelled by the trust, usually due to a temporary shortage of resources; other causes include, for example, ward or theatre closures due to infections;
   • clinical: because a patient is medically unfit for the planned treatment or it is unsuitable; or
   • patient initiated: a patient decides that she or he no longer wants the treatment or the admission date offered is inconvenient.

23 In all, non-clinical reasons account for about one-half of all elective admissions and operations that are cancelled either by the trust or the patient (Exhibit 10):
   • bed shortages (including lack of an intensive care bed) was the most common non-clinical reason for cancellation reported by trusts, but it accounted for only 1.6 per cent of intended admissions. Trusts with high bed occupancy tend to cancel higher proportions of elective admissions for non-clinical reasons (Exhibit 11, overleaf);
   • shortages of theatre time (for example, due to operating list overruns, unforeseen emergency operations, equipment failure or non-availability) was the next most frequent reason given (1.0 per cent);
   • unavailability of a surgeon, anaesthetist or supporting staff was a less frequent reason (0.4 per cent); and
   • disturbingly, some trusts had not recorded any reason for a significant number of cancellations – which could indicate a lack of management attention to this important issue.

Exhibit 10
Reasons for cancellation of elective admissions and procedures
Bed shortages was the most common non-clinical reason for cancellation by trusts.

Notes: The chart shows percentages of intended non-emergency admissions (medical as well as surgical) cancelled. Thus denominators include admissions cancelled during the previous week or on the day as well as admissions that actually took place.

This chart includes all reported cancellations, including those initiated by patients.

As previously noted, data coverage, and therefore results, differ from those of the Modernisation Agency at its pilot sites – the Modernisation Agency found that 52 per cent of cancellations were initiated by patients.

Source: Audit Commission survey (England and Wales) – six-week sample period: May–June 2002
The NHS Modernisation Agency has encouraged NHS trusts to collect data on the reasons why operations are cancelled and has published benchmarking data from a sample of trusts (Ref. 7). However, the only cancellation statistics that are collected nationally in England by the Department of Health are of numbers of operations cancelled by a trust for non-clinical reasons on or after the day of admission. It is only these patients that in England are guaranteed treatment within 28 days of the cancelled operation. However, about one-half of last minute cancellations occur just before this (Exhibit 12), typically on the afternoon prior to the scheduled admission, by when it is usually clear to managers whether a bed will be available.

Exhibit 11

Bed occupancy and non-clinical cancellation of admission

Trusts with high bed occupancy tend to have higher rates of non-clinical cancellations.

Note: Occupancy is based on four sample days in May 2002.

Source: Audit Commission Survey (England and Wales – May–June 2002)

This guarantee was met in 72 per cent of cases during the six-week period in May–June 2002 sampled by the Audit Commission.
Trusts that are slow to admit either elective or emergency patients also have marginally higher elective cancellation rates, as do trusts with fewer surgical beds in relation to the size of the populations that they serve. But these factors alone explain just a small proportion of the variation in cancellation rates. No evidence was found to support any hypothesis that a comparatively high level of cancellations may indicate that a trust is assigning too small a percentage of its resources to elective work, or that it has a particular problem with the number of surgical beds that are occupied by medical emergency patients.

Patient choice and information

As well as shorter waits for treatment and fewer cancellations, many patients would like more notice of when they will be admitted and a choice of date. The Department of Health has recently specified\(^I\) that, for a non-urgent admission, patients should be given a minimum of three weeks’ notice. Sample surveys in two specialties (undertaken for the Audit Commission before that departmental guidance was issued) suggested that some trusts gave all patients at least four weeks’ notice, whereas less than two weeks’ notice was common at some others (Exhibit 13, overleaf). Of course, some patients welcome admission at short notice if they are offered a cancellation and this is sometimes necessary if efficient use is to be made of resources. It should, however, be the exception.

Inadequate notice of admission dates should become less of an issue as the booked admissions initiative progresses. The NHS Plan states that, by the end of December 2005, all patients will be able to choose an admission date in consultation with clinicians and the NHS trust concerned.\(^I\) This is a fast developing area and progress up to March 2002 varied markedly from trust to trust. While booking has many advantages for both patients and hospitals, it is not clear that it helps to reduce waiting times. The data confirm that trusts that have shorter waiting times tend to be the most advanced in terms of the introduction of booked admissions. However, no evidence was found to show that trusts with more booked admissions have made greater progress in improving waiting times than other trusts. Thus, these data suggest that it is easier to introduce booking systems if waits are short, not that introduction of booking has led to shorter waits.

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**Exhibit 12**

Timing of cancellation of elective admissions and procedures by hospital managers or clinicians

Patients are more likely to be told during the previous week that their admission has been cancelled than on the actual day when admission was due.

![Graph showing timing of cancellation](image)

**Notes:** Includes cancelled non-emergency admissions in all specialties, medical as well as surgical, and also discharges without treatment following cancellation of intended procedures after a patient has been admitted. Based on data showing 14,769 cancellations from 152 trusts – this excludes trusts that were unable to specify when cancellations took place. All cancellations initiated by patients have also been excluded.

**Source:** Audit Commission Survey (England and Wales) – six-week sample period May–June 2002

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\(^II\) Under ‘partial booking’ patients are told an approximate waiting time as soon as it is decided that admission is required; nearer the time they are contacted to choose a convenient admission date. ‘Full booking’ involves patients choosing a specific admission date from those available, at the outset.
Exhibit 13
Length of notice of admission date (orthopaedics)

Some trusts give a minimum of four weeks’ notice of admission dates to all patients; at some others few patients receive even two weeks’ notice.

Notes: The two data series shown are sorted independently.

Similar results were obtained from the surveys of urological admissions.

Source: Audit Commission sample surveys of orthopaedic inpatient admissions during May/June 2002 (England and Wales)

...although most patients were pre-assessed...this typically occurred only after a date for admission had been notified.

Patients also need to be well-informed about their hospital stay and treatment and should have the chance to ask questions about what is involved. The NHS Modernisation Agency recommends that all patients should be pre-assessed before they are admitted for an elective operation and that this pre-assessment should take place as soon as possible after a decision is made to admit them (Refs. 8 and 9). Not only would this improve patient experience, but it would result in a reduction in the number of cancellations that happen when patients change their minds about treatment, or are found to be medically unfit only after an admission has been arranged. It would also enable early identification of any special requirements that patients may have and would therefore lead to more efficient use of resources by hospitals. Sample surveys for this audit of inpatient admissions for urological operations showed that although most patients were pre-assessed at a majority of NHS trusts, this typically occurred only after a date for admission had been notified (Exhibit 14). Very similar results were obtained for orthopaedic operations. However, analysis of whether early pre-assessment really does reduce cancellation rates was inconclusive.
Exhibit 14
Pre-assessment before inpatient admission (urology)

Although most patients were pre-assessed, this typically occurred only after a date for admission had been notified.

Managing waiting lists

Making waiting list administration more efficient is an essential component of reducing long waits and the number of cancellations. In addition to the issues considered above, greater efficiency requires that:

- only appropriate patients are placed on the waiting list; it may be possible to assess this from the extent to which patients are removed from waiting lists without treatment because they subsequently decline treatment or because the planned operation is found to be unsuitable for them;
- there are firm guidelines for how long patients may be suspended from the waiting list and procedures to ensure that these are observed; lists should be validated and reviewed systematically to ensure that patients who no longer require admission are removed in good time; and
- there are sound arrangements for co-ordinating waiting lists and for making best use of the resources allocated to elective work right across the trust.
Removals from waiting lists without treatment

On average, one in six people on a waiting list for admission is permanently removed from the list without receiving treatment (Exhibit 15). Both the percentages of removed and patterns of reasons for removal vary between trusts and by specialty. They are influenced to some extent by clinical casemix and the characteristics of the area and population served by the trust. During a particular year, a high percentage of patients may be removed as a result of initiatives to improve the validation of waiting lists. However, a high rate of removal sustained over several years suggests that many patients are being listed inappropriately for elective operations. The reason most commonly given by trusts for removing people from urology and orthopaedic waiting lists was that ‘the patient declined treatment’ (Exhibit 16).

Exhibit 15
Removals from waiting lists without treatment

On average, one in six people on a waiting list for admission is removed without receiving treatment.

Removals from waiting list without treatment as percentage of numbers admitted or removed

Source: Department of Health Return KH06 (England) and Audit Commission Survey (Wales) (Year ending 31 Mar 2002)
Exhibit 16
Why people are removed from waiting lists without treatment

The reason most commonly given for removing people from waiting lists without treatment was that ‘the patient declined treatment’.

Managing suspensions

If a patient on a waiting list is not clinically ready for admission, or cannot be admitted during a particular period for a social reason (such as a pre-booked holiday), they may be suspended from the ordinary waiting list. By definition, the duration of this suspension does not count towards waiting time. It is important that such patients realise that they are no longer on an active waiting list and that they do not remain in this position for long periods without a further review of their needs.

Both the proportions of waiting list patients who remain suspended at any point in time (Exhibit 17, overleaf) and the lengths of those suspensions vary markedly between trusts. To some extent these variations reflect the differing characteristics of the areas served by each trust. However, high rates of suspension may suggest that:

- some patients who are not ready for treatment are being added to waiting lists prematurely;
- suspended patients are not being reviewed regularly to determine whether they still require admission or whether alternative treatment might be preferable; or
- some patients remain suspended after they should have been reinstated on the active waiting list.

Notes: These data exclude removals for which the reason was reported to be unknown. These data have not been brought together with those in the previous exhibit because of their different source and scope. But as a rough indication, at the average trust 5 per cent of patients added to these lists were removed because they declined treatment.

Source: Audit Commission surveys – removals from urology and orthopaedic lists during four weeks in May 2002. (England and Wales)

As previously noted, if a patient refuses an offered date of admission without giving a reason acceptable to the trust, admission is deferred. If an admission is still required, the time waited is reset to zero. The consequences of refusing the offer may not always be apparent to the patient.
Proportions of waiting list patients who remain suspended vary markedly between trusts.

In total across England and Wales, 21 per cent of suspended patients had last been placed on a suspended list more than six months previously; almost 10 per cent had been suspended for over one year. For individual trusts, proportions of suspensions that had lasted for more than six months ranged from zero to almost 80 per cent. Trusts where a high percentage of patients who are suspended for ‘social’ reasons remain so for more than six months are also likely to have a high percentage of lengthy suspensions for ‘clinical’ reasons. This may suggest that the quality of waiting list management is as important as patient need in determining how long patients remain suspended (as there is no plausible reason why the two types of suspension should be related).

Over one-half of trusts (56 per cent) have an agreed trust-wide policy on the maximum length of time that patients can remain suspended before they are either restored to the active waiting list or referred back to their GP so that an alternative plan of treatment can be drawn up. Some other trusts had one in draft, or one that covered only certain specialties or sites within the trust. These policies specified maximum periods of suspension ranging from three to five months. However, existence of a policy is no guarantee that suspensions lasting over six months will be avoided; trusts with agreed policies were no more successful in this area than those without, but those that audited suspended lists against their policies did do somewhat better.

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**Exhibit 17**

**Suspensions from the waiting list**

Proportions of waiting list patients who remain suspended vary markedly between trusts.

Source: Audit Commission survey (England and Wales) – patients suspended at 31 Mar 2002

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1 The Audit Commission has less confidence in the accuracy of these data than that of other returns.
Waiting list co-ordination

35 As noted above, most trusts operate many separate waiting lists for admission. Much of the effort to co-ordinate these lists has focused on three areas:

• procedures to improve the consistency with which waits are recorded;

• action to prevent breaches of maximum waiting time targets for long-waiters and patients whose operations were cancelled; and

• attempts to ensure that cancelled theatre sessions are utilised by other surgeons.

36 Most trusts (87 per cent) produce a weekly trust-wide ‘long-waiter’ list showing patients who are in danger of waiting unacceptable lengths of time to be admitted.¹ Thirteen trusts reported that targets differed according to where patients lived (that is, according to who commissioned the care) and some had separated their ‘long-waiter’ lists for each group of patients. This seems inequitable.

Capacity and demand

37 The final section of this review examines how waiting times may be affected by the capacity available within each NHS trust and the level of demand that it is trying to meet. In particular, it considers whether data assembled by the Audit Commission, for this and the other three Audit Commission reviews published at this time, can throw any light on how the availability and utilisation of theatres, beds and staff influence the rate of elective admissions and hence waiting times for admission. It is recognised that there are complex relationships between such factors and clinical and managerial decision making. These make it difficult to quantify the effect on elective waits of increasing capacity or efficiency. The review questions whether there are observable feedback effects of lengths of wait on contributory factors such as numbers of decisions to admit in relation to the population served (Exhibit 18, overleaf). The review does not attempt to address the issue of unmet need for elective treatment or factors influencing local variations in morbidity. Possible relationships are examined even where causality is uncertain or correlations are weak; the underlying statistics are available on the Acute Hospital Portfolio pages of the Audit Commission website (see back cover).

¹ This is in addition to the PTLs promoted by the NHS Modernisation Agency in England to aid implementation of the new shorter maximum waiting time targets.
An acute trust is meeting demand if its projected waiting times are acceptable and stable, or falling. If, however, waits are currently unacceptable or are projected to increase, then list sizes for admission under each key specialty need to be reduced at a rate that will enable the trust to achieve target waiting times within the required timescales. Either:

- new ways must be found to manage demand by ensuring that patients are treated in other appropriate settings (for example, in a DTC either within or outside the trust); or
- currently available capacity must be used more efficiently. The reviews on bed management and operating theatres show that most trusts have scope for further reductions in the length of patient stays, for increased day surgery or for making more intensive use of theatre time. Many trusts could also improve efficiency by reducing disruption to plans through enforced cancellations and by improving co-ordination of resources.

As a last resort, the capacity available for treatment of elective patients may have to be increased in those specialties that are under pressure.
Trusts vary considerably in terms of the rates at which patients are added to waiting lists...from the local population....Where waiting times are shorter, clinicians are more likely to decide to admit a patient.

Additions to the waiting list

Trusts vary considerably in terms of the rates at which patients are added to waiting lists for each of the six main elective specialties from the local population. As might be expected, the rates for most specialties are higher for areas with older populations. But they also appear to be influenced significantly by a number of factors that are related to resource availability or utilisation rather than to need. For instance, there is some weak evidence that, in trusts where waiting times are shorter, clinicians are more likely to decide to admit a patient; this is so both for elective procedures (Exhibit 19) and for emergencies. Emergency admission rates are also higher in trusts that have more acute beds per consultant, and those where less intensive use is made of scheduled elective theatre sessions. Thus, as noted in the bed management report published at the same time as this review, any increase in existing capacity is unlikely to realise its full effect on waiting times unless it is accompanied by either protocols to guide clinical decision making or changes to patterns of provision (for instance, due to establishment of a DTC).

Exhibit 19
Influence of waiting times on the decision to admit
There is weak evidence that, in trusts where waiting times are shorter, clinicians are more likely to decide to admit a patient for an elective procedure.

Notes: The trend line shown is logarithmic. Linear correlations can be improved by normalising waits using national averages for each specialty.
Sources: Derived from HES/PEDW data, ONS mid-year population estimates, returns to Department of Health/Integrated Data Returns (Wales) and Audit Commission survey data 2001/02.
Bed availability and utilisation

Waits for inpatient admission tend to be shorter in trusts that have more beds in relation to the populations that they serve, and/or lower surgical bed occupancy (Exhibit 20) although the correlations are weak. We also found some weak evidence that trusts with the longest elective waits have longer lengths of stay. However, no relationship could be found between average waits and the potential to reduce the lengths of patients’ stay in hospital. Nor was there any evidence of ability to ‘trade-off’ speed of emergency admission against the duration of elective waits; trusts with longer emergency waits (medical and surgical combined) do tend also to have more long waits for elective inpatient admission (Exhibit 21).

Exhibit 20
Influence of bed availability on waiting times
Waits tend to be shorter in trusts that have...
...(a) more surgical beds per 100,000 catchment population, or

However, elective waits fell fastest in trusts with fewer medical beds per head of population. This may be due to specialisation. Further investigation is required.
...(b) lower bed occupancy

Percentage of inpatients admitted within six months

Note: Linear trend lines shown have been plotted without removal of outlying values.

Sources: HES/PEDW 2001/02 and Audit Commission survey (England and Wales) 2001/02: Occupancy: four sampled days in May 2002

Exhibit 21

Waits for emergency admission

Trusts with long emergency waits tend also to have long waits for elective admission.

Percentage waiting less than six months for elective inpatient admission

Note: The trend line shown is logarithmic.

Sources: Returns to Department of Health/Integrated Data Returns (Wales) March 2002 and Audit Commission survey of emergency waits in May 2002
There is considerable variation between trusts in how far in advance of their first operation elective inpatients are admitted. Trusts with shorter pre-operative stays also have shorter overall lengths of stay and so make more efficient use of beds. Those admitting higher proportions of elective inpatients on the day of their operation also have shorter waits for both elective and emergency admission. Geography and the demographic characteristics of the populations served by each trust could, of course, influence both their ability to admit patients on the morning of their operation and waiting times.

Theatre availability and utilisation

No straightforward relationship could be found between waits for admission and theatre availability or utilisation. Many of the trusts that have the highest proportions of short waits for elective admission overall are those that have the lowest theatre utilisation, both of elective sessions and of all scheduled operating hours. This suggests that low rates of theatre utilisation may sometimes be the result of less pressure on waiting lists. But conversely, in general surgery, shorter waits for admission are loosely associated with higher percentages of planned elective lists carried out. And in urology, waits for admission tend to be somewhat longer in those trusts where elective sessions are interrupted by emergency cases more often.

Consultant numbers

It might be expected that waits would be shorter in trusts with more consultants per head of catchment population. No compelling evidence was found to support this hypothesis. There was a statistically significant, but weak, relationship in just one specialty, but many trusts with low numbers of consultants also achieve short waits.

Conclusion

English trusts have had considerable success in reducing the longest waiting times for elective admissions. They have been supported in their efforts by the Modernisation Agency and other central initiatives. Wales has chosen to focus on waiting times reductions for selected treatments with the result that waits for other types of operation are often longer than in England. However, in both countries, an even greater rate of improvement is necessary if all trusts are to meet the challenging Government targets for continuing improvement. This improvement will rely on the successful introduction of new, more efficient ways of working, as well as on the additional surgical facilities now being provided outside acute hospitals, as well as in new DTCs. The latest decisions about where in England DTCs are most needed have been informed by the findings of local capacity planning exercises, but they also need to take account of the broader national picture of where the longest waits occur after taking into account the potential for using existing resources more efficiently.
In order to improve the experience of patients waiting for elective admission, many NHS trusts need to:

- place more emphasis on ensuring that non-urgent patients are admitted in order, according to how long they have been waiting since the decision to admit them was taken;
- secure local clinical consensus on the percentages of each common elective procedure that are likely to be urgent in order to inform planning and monitoring;
- work towards more standardisation of list administration and pooling of similar lists;
- ensure that compliance with policies on issues such as maximum length of suspension from waiting lists is audited;
- reduce current high rates of cancelled admissions (including those cancelled shortly before the intended day of admission) and the subsequent cancellation of procedures, for example, through improved pre-assessment and better resource scheduling;
- record the reasons for cancellations, suspensions and removals from lists without treatment more consistently in order to reduce high rates;
- put in place procedures to monitor and control admission thresholds and lengths of stay before additional capacity is created; traditional patterns of resource allocation and working practices may need to be reviewed to enable new facilities, such as DTCs, to be used to best effect; and
- appoint a manager or clinician with sufficient authority and support to monitor and balance the competing demands of emergency and elective pressures and to ensure that all bed and theatre resources are utilised fully.

Perhaps unsurprisingly, this review found no single factor that adequately explains local variations in waiting times. However, there is a marked association with bed numbers in relation to the population served and with bed occupancy. These factors also appear to influence the number of decisions to admit to a greater extent than might be expected from local differences in clinical need. This has important planning implications, particularly at present while capacity is being expanded.

The Audit Commission’s appointed auditors are working with each of the trusts covered in this review to diagnose the causes of local problems highlighted by the data and to agree local action plans to address them. Implementation of these local recommendations and progress in improving services for patients will be assessed periodically against future changes in key indicator values.

_The Audit Commission gratefully acknowledges advice and comments received from NHS and departmental bodies, Royal Colleges, Checklist Ltd and others. However, this review does not necessarily represent their views and responsibility for content rests solely with the Commission._
Appendix: measuring progress in improving the extent to which patients are admitted in order

This appendix suggests how key features of waiting time distributions can be encapsulated in a single summary indicator in order to monitor progress in improving the extent to which non-urgent patients are admitted in order. It builds on approaches adopted by the NHS and consultancies, such as Checklist Ltd, to analyse the ‘shapes’ of these distributions.

If all patients who were waiting for the same procedure were admitted in order, a graph of the cumulative percentages of patients treated by the number of months that they waited for admission would theoretically show:

- an initial steep section: these should be **urgent** patients – the proportion would vary between trusts according to their casemix and local clinical practice;
- a plateau: the **cohort wait** – the time needed to treat the backlog of patients on the list at the start of the period (or to allow adequate time for pre-assessment if this is greater);
- another steep section – these are **non-urgent** patients – each should have waited a similar length of time – the steeper the slope of this part of the graph, the greater the extent to which such patients are being admitted in turn; and
- a final **tail**: patients who were not ready for admission when their turn came (Exhibit 22).

Few actual trusts’ waiting time distributions for an individual procedure look like this theoretical graph. Partly, this is because new demand and available capacity are unlikely to remain in balance throughout the year and average waits may be reducing (or increasing). But, above all, it is because patients are being admitted out of order. This could be because some consultants have shorter waits than others for the same operation (and their lists are not pooled). Or it could be that there are high drop-out rates among the patients first selected for admission, followed by a scramble to find replacements. Thus non-urgent patients at the same trust may wait very different lengths of time for the same procedure (Exhibit 23).
Exhibit 22
Theoretical distribution
– non-urgent patients admitted in order

The summary indicator should focus on the slope of the non-urgent section of the graph.

Exhibit 23
Variation in wait for a hip replacement

Non-urgent patients at the same trust may wait very different lengths of time for the same procedure.
A summary indicator of the extent to which patients are admitted in turn should focus on the slope of the non-urgent part of the cumulative waiting time distribution. But which section is this? There is currently no agreement on how urgency of treatment should be categorised. And locally, few surgeons have agreed what proportions of patients undergoing each procedure are likely to be ‘non-urgent’ cases. However, it is most unlikely that more than 50 per cent of each of the most common elective procedures would be urgent in any trust. The indicator might therefore, for each selected procedure, measure differences between the time waited by the patient at the 90th percentiles of these distributions (that is, the minimum wait experienced by one in every ten patients) and the median (that is, the length of time waited by 50 per cent of patients) (Exhibit 24, overleaf). A small difference would show greater equity, a greater difference less emphasis on admitting non-urgent patients in order. But in interpreting this indicator, average waiting times must also be taken into consideration, as the difference between the median and 90th percentile wait also tends to be greater where average waits are longer.

**Exhibit 24**

**Admission in order (hip replacement)**

A lesser difference between the median and 90th percentile of the time waited for the same procedure suggests greater emphasis on admitting non-urgent patients in order.

*Source: Audit Commission from HES/PEDW data: 2001/02 – (Procedure W37)*
References


The Acute Hospital Portfolio is a performance improvement tool for acute and multi-service NHS trusts. It comprises 16 topics ranging from A & E Departments and Bed Management, to Procurement and Supply and Catering.

The topics have been added to the Portfolio in phases of four per year. A ‘balanced score card’ performance framework is developed for each topic. Data are then collected from all relevant trusts in England and Wales (or taken from existing national sources, where possible). The Audit Commission’s appointed auditors then provide each trust involved with a tailored performance assessment based on the national comparative data produced and taking account of the local circumstances of the trust. In-depth audit work may also be undertaken at some poorly performing trusts that demonstrably need it. The national results of the surveys are published in short reviews such as this one and the data, together with computer software to facilitate their use, are released to NHS bodies.

This review reports the national results of the recent assessment of Waiting for Elective Admission. It is one of four reviews being published at the same time – the other three are: Bed Management, Outpatients and Operating Theatres. Most NHS acute and multi-service trusts will already have received their performance assessments from their auditors and agreed action plans for improvement where these are needed for these four topics. The data on which they are based and comparative analysis computer software will be released to NHS bodies on CDs by the end of June 2003.

Trusts have already received similar material for each of the eight topics covered previously and they are currently collecting data for four more topics: Facilities Management, Information and Records, Pathology and Therapy and Dietetics. Feedback to trusts on these topics will take place in the autumn and the national reviews will be published next year.

Full details of the Portfolio can be found on the Audit Commission website: http://wwwaudit-commission.gov.uk/itc/acuteportfolio.shtml