Report by the Comptroller and Auditor General

NHS Executive

Inpatient
Admissions and
Bed management
in NHS acute
hospitals

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Preface

This report examines inpatient admissions and bed management in NHS acute hospitals in England. These are hospitals providing diagnostic and treatment facilities beyond those provided in the community or by the patient's general practitioner.

We examine how, in recent years, NHS acute hospitals have been developing new ways of managing inpatient admissions, beds and patient discharge to meet the growing demands placed on their resources. For some - elective patients - admission is planned in advance, for example, following referral by their general practitioner. For others, admission comes as an emergency patient, perhaps following an accident or sudden illness. For many patients the process of admission, the period in hospital, and subsequent discharge can be a stressful experience.

In our examination we found considerable evidence of good practice which, if disseminated more widely, could help to improve the overall quality of service provided to patients. Our report considers how widely these good practices have been taken up within NHS acute hospitals and the impacts they have had. We also look at the opportunities open to NHS acute hospitals to improve further the quality of service. There are significant variations in performance across NHS acute hospitals. And there are risks for NHS acute hospitals in terms of the quality of care provided to patients, and in the efficient use of resources, if they fail to place patients promptly in the most appropriate facilities, cancel their admission, or delay their discharge from hospital.

Our report focuses specifically on patients expected to stay in hospital at least one night (ordinary admissions) and their time in NHS acute hospitals. It does not examine the management of outpatient services or day case services, or the quality of clinical care provided, such as the accuracy of clinical diagnosis or the appropriateness of the decision to admit. However, it recognises the great importance of relationships between hospitals, and other care providers and organisers, such as general practitioners and social services, in ensuring that a patient's treatment and rehabilitation are as well co-ordinated as possible.

Executive summary

- In recent years the NHS has treated record numbers of patients. There has been growing demand for admission to hospital, and these pressures are likely to continue. As part of their response to this, NHS trusts, social services, and other agencies, have developed a range of practices and facilities. These are designed to improve the way in which patients are admitted to hospital, and cared for during their stay. They are also designed to ensure patients are discharged in a timely and appropriate manner to receive, where necessary, ongoing care in the community. This examination focuses on how NHS acute trusts are managing the increasing demand for inpatient care. It concludes that many NHS acute trusts are achieving significant improvements in the use of their resources, reducing lengths of inpatient stay and levels of cancelled operations, and more generally enhancing the quality of patient care.
- However, there is still scope for more NHS acute trusts to introduce and develop the good practice examined in this report, thus offering the prospect of further improvements in the ways in which NHS resources are used. In addition we consider that further across-the-board improvements will depend on:
 - the development of significantly improved information systems to allow hospitals to monitor and plan better the use of key resources such as beds and theatre time;
 - enhancing the roles and responsibilities of bed managers; and
 - improved co-ordination between different professional groups within hospitals, and between hospitals and other external care agencies.

Our detailed findings and recommendations are outlined below.

Patient admissions to hospital are at record levels

In 1998-99 a record number of people - some 5.75 million - were admitted to hospitals in England as inpatients expected to stay in hospital at least one night (ordinary admissions). Patient admissions to hospital in the first half of 1999-2000 indicate the growth is continuing. About one third enter as elective patients (those whose admission is booked in advance). The other two thirds are admitted as

emergency patients, perhaps following an accident or acute or sudden illness. For many patients, admission to hospital can be a significant event in their life, and they may be in pain or shock, as well as anxious at the prospect of treatment.

The handling of each patient is different, and the time that each patient stays in hospital depends on the type and severity of their condition, the treatment required, their rate of recovery, and the hospital's skills in service delivery and organisation. However, there are common features to both elective and emergency patients' time in hospital. Figure 1 on the foldout page shows the key stages in patient admission, bed management and patient discharge in an effectively managed system.

The National Health Service seeks to ensure elective and emergency patients receive high standards of care

The National Health Service aims to provide high standards of care to both elective and emergency patients. Specific standards have, since 1992, been contained in the Patient's Charter⁽¹⁾. Although the Government is currently reviewing the Patient's Charter, NHS bodies are still required to meet existing Charter standards in admitting, treating and discharging patients. Figure 2 below sets out the current standards and guarantees relevant to this examination.

The Patient's Charter sets out standards and guarantees designed to ensure that all patients receive high quality care.

In particular:

Figure 2

Elective patients can expect:

- (in 9 out of 10 cases) to be seen for their first outpatient appointment within 13 weeks of written referral by a general practitioner, with all patients to be seen within 26 weeks;
- admission to be within 18 months of inpatient or day case treatment, and within 12 months for coronary artery bypass grafts and some associated procedures;
- an operation should not be cancelled on the day the patient is due to arrive in hospital;
- priority treatment to be within one month if an operation is cancelled at the last minute.

Emergency patients can expect:

• to be given a bed within 2 hours if admitted through an Accident and Emergency department.

All hospital inpatients can expect:

before discharge from hospital, a decision should be made about any continuing health or social care required by the patient. This includes arrangements for meeting these needs with community nursing services and local authority social services before the patient is discharged. The patient and, with agreement, the patient's carers will be consulted and informed at all stages.

Source: The Patient's Charter

NHS Executive⁽¹⁾

Figure 1 is available to view as a separate file. To view, please click here.

While general and acute patient admissions have been increasing, the total number of general and acute hospital beds has fallen

- The number of general (mainly older patients) and acute patients admitted to hospital and total hospital activity have increased steadily in recent years. Total emergency patient admissions have increased from 3.3 million in 1993-94 to nearly 4 million in 1998-99. The increase in the total number of elective patients admitted to hospital for one night or more has been smaller, as more people are treated as day cases each year. However, in 1998-99 the total number of elective patients receiving inpatient treatment for one night or more increased by some eight per cent over 1997-98 levels to 1.8 million. This was partly as a result of the Government's initiative to reduce the total number of patients waiting for admission by 100,000 from the level in March 1997 (paragraph 9). Both elective and emergency patient admissions during the first half of 1999-2000 were at higher levels than in the first half of 1998-99.
- At the same time, the total number of hospital general and acute beds has fallen, mainly due to a reduction in general beds for older patients, which reflects changes in their care. In 1993-94 there were over 37,000 general beds for older patients. This had fallen to 30,240 (a drop of 18 per cent) in 1997-98. Over the same time, the number of acute beds was broadly stable from 109,700 in 1993-94 to 107,800 in 1997-98. The increase in hospital activity at a time when the number of general beds has fallen and the number of acute beds has been broadly stable has been possible because of developments in clinical treatments, as well as the introduction of techniques and care arrangements that enable patients to recover faster, or to be discharged more quickly into community based care services.
- The continuing downward trend in overall bed numbers (general and acute) has been an issue of considerable debate within the NHS. In September 1998, the Government set up, within the Department of Health, a National Beds Inquiry to review assumptions about growth in the volume of general and acute health services, and their implications for health services and hospital bed numbers looking 10-20 years ahead. The Inquiry's findings were published for consultation in February 2000⁽²⁾.

The Department of Health have launched initiatives to improve access to patient treatment and to spread good practice

- Over £12 billion a year is spent on the acute care of patients by hospitals and community health services⁽³⁾. The Department of Health have also allocated additional funding to reduce the number of patients waiting for treatment, and enable hospitals to admit increasing numbers of emergency patients⁽³⁾. For example they allocated:
 - £269 million in 1997-98 and £209 million in 1998-99 to meet additional winter pressures for emergency patient admissions;
 - £115 million to fund a programme of modernising Accident and Emergency departments; and
 - £417 million in 1998-99 and £320 million in 1999-2000 to increase elective activity and reduce waiting lists.
- The NHS Executive have also established initiatives to encourage good practice across the National Health Service. These include:
 - the Emergency Services Action Team, established in August 1996, to identify and spread good practice and advise on the handling of winter emergency pressures;
 - the Waiting List Action Team, established in November 1997, to secure the success of the national waiting list initiative and achieve the sustained reduction in patient waiting lists by 100,000 from the level in March 1997. It also aims to secure effective implementation of national policies that improve services for elective patients; and
 - the National Patients' Access Team, established in April 1998, to complement the work of the Waiting List Action Team by extending the use of best practice, to work locally to solve bottlenecks that slow patient care, and to develop new and innovative approaches to patient care.

These initiatives all sit within the Government's overall strategy aimed at improving clinical practice and the quality of service to NHS patients. This strategy includes, most notably, the introduction of Clinical Governance, the National Institute for Clinical Excellence, the Commission for Health Improvement and National Service Frameworks.

The National Audit Office examination

- Against this background, we examined three issues. These were:
 - Whether hospitals admitted patients promptly and employed best practice in admissions management;
 - Whether hospitals utilised beds efficiently and employed best practice in bed management; and
 - Whether hospitals managed patient discharge well and employed best practice in discharge management.

The report focuses on inpatient services, and does not examine the management of day case services or outpatient services for patients referred for consultations by their general practitioner. However, to set the trends in inpatient admissions and elective and emergency treatment in context, it does include key information on the number of patients seen at outpatient consultations, as well as information on the number of patients treated as day cases. The report also does not look at waiting lists, which is to be the subject of a separate National Audit Office examination.

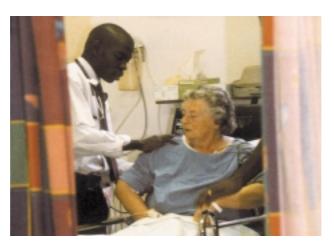
The methodology for the study is described in detail in Appendix 1. In particular, we surveyed all health authorities and 163 NHS acute trusts in England with at least 300 general and acute beds, visited 10 NHS acute trusts and consulted widely with a range of practitioners and other experts in the field. A summary of the responsibilities of the organisations involved is at Appendix 2.

Our main findings and recommendations are set out below.

On admitting patients to hospital

- Hospitals are admitting record numbers of patients. In 1998-99 some four million general and acute emergency patients and nearly two million general and acute elective patients were admitted to hospital as inpatients, and a further 3.5 million day case patients were treated. Over this time, the number of patients waiting for admission fell to just over one million, and the number waiting over a year fell below 50,000. The number of patients treated in the first half of 1999-2000 was higher than the same period in 1998-99, but the number waiting for treatment was also slightly higher than at the end of 1998-99.
- Between September 1998 and September 1999, nearly 57,000 patients had operations cancelled by their hospitals for non-medical reasons on the day of, or following, admission the highest number reported since the Patient's Charter standard on cancellations was introduced. In addition, around 20 per cent of emergency patients waited longer than the Patient's Charter maximum of two hours to be admitted to hospital. Long waiting times jeopardise the quality of care provided to patients. These can be signs of significant pressures within hospitals.

A patient receiving assessment and care on admission to hospital



Against this background, many NHS acute trusts have improved the way they admit patients, and have developed a range of good practices and facilities. But there is still scope for further improvement. More NHS acute trusts could use their knowledge of patterns of emergency admissions to help plan more effectively the number and type of elective patient admissions. While most NHS acute trusts have agreed admissions policies on how they respond to patient needs, only half cover how resources such as beds and theatre time are co-ordinated with the

arrival of the patients. Fewer than half of NHS acute trusts communicate their admissions policies to health authorities and referring general practitioners, which would help these agencies better understand hospital admission practices.

There is also scope for improvements in ensuring patients are fit for their operation. In nearly a fifth of NHS acute trusts elective patients were assessed only at the time of admission, increasing the risk of cancelled operations for medical reasons. In addition, many hospitals have yet to realise the full potential of same day admission (rather than admitting patients a day before their operation), with large variations between NHS acute trusts in the proportion of patients admitted in this way. We estimate that bringing in a further 10 per cent of elective patients on the day of their operation could release around 180,000 bed days a year for alternative use. And patients admitted on the day of their procedure do not necessarily need to be placed in a bed while waiting for theatre, but at present only eight per cent of NHS acute trusts we surveyed used facilities other than an acute ward in which to prepare patients for theatre.

On managing hospital beds

Placing patients promptly in appropriate beds is increasingly challenging and complex as a result of falling bed numbers, high overall bed occupancy levels, and a high and variable demand for emergency admission. Hospitals have a daily task of balancing the demands of treating an unknown and variable number of patients and ensuring that sufficient, but not excessive, resources are available, in terms of beds for patients with differing care needs, clinical and nursing staff and other facilities.

Average inpatient occupancy levels in general and acute beds vary widely between trusts – from around 50 per cent to around 99 per cent on average during 1997-98 (the most recent year for which the NHS Executive have data available). But most NHS acute trusts report facing times when the demand for inpatient beds exceeds availability. At such times, new emergency patients are more likely to be assessed and begin to receive treatment in Accident and Emergency departments before they can be moved on to an inpatient ward than in normal circumstances. Our survey showed that hospitals with higher levels of average bed occupancy cancel significantly higher proportions of elective operations and keep emergency patients waiting significantly longer in Accident and Emergency departments. Recent research indicates that, hospitals with average occupancy levels above 85 per cent can expect to have regular bed shortages and periodic bed crises.

Almost all NHS acute trusts now have designated bed managers, in many cases overseeing all inpatient beds – for both elective and emergency patients. The number has grown significantly since 1997. In nearly 80 per cent of NHS acute trusts bed managers have received specific training on managing patient placement in appropriate beds and managing bed availability. But in nearly half of NHS acute trusts, bed managers were not part of any network with neighbouring trusts, despite the benefits to be derived from sharing good practice. There is considerable scope to develop the bed management function in order to handle better the demands on beds, and to minimise the extent to which this work is primarily about the immediate daily task of identifying spare beds.

In common with the Government's Emergency Services Action Team, we found that most bed managers do not have access to information systems that provide up to date information on bed occupancy and availability, or information on short-term patient admissions and discharges. In over 90 per cent of NHS acute trusts, bed managers obtain information on bed state by physical inspection or telephoning wards. As a result, they spend considerable time each day dealing with the immediate needs of finding appropriate beds for new patients requiring admission. Moreover, despite their detailed knowledge of patterns of admission and discharge, bed managers are not yet extensively involved in planning elective admissions, or in strategic assessments of bed needs.

Hospitals have to think carefully about their short and long term bed needs. Currently, around a quarter of NHS acute trusts make no assessment of likely bed availability for more than a day ahead, but many others have developed approaches that consider the anticipated length of stay, gender mix and specific bed needs of patients. Longer term, there are clear benefits in regularly reviewing bed complement and configuration to ensure that they match patient needs.

On discharging patients from hospital

Discharge from hospital can be a major event for patients and their carers, which must be managed well. Good co-ordination inside and outside the hospital, as well as early planning of patient discharge, is crucial, as patients cannot be discharged until arrangements for appropriate after-care are in place. This is particularly relevant to older patients, whose discharge arrangements are often more complex and more likely to require a package of ongoing care services.

Delays in discharging patients who are fit to leave hospital prevent patients being cared for in a more appropriate environment. They also prevent the admission of new patients who are more in need of the services the acute hospital

provides. NHS data show that each day, delayed discharge affects nearly 6,000 older patients (12 - 13 per cent of all older patients in hospital) resulting in the loss of nearly 2.2 million bed days each year.

NHS acute trusts in our survey considered that internal causes of delay 26 were often due to the time of day that the hospital consultant decides to discharge a patient, and poor co-ordination of support services, for example, drugs not being ready for the patient to take home or a lack of transport. These problems are normally within the hospital's control, and underline the importance of co-ordination between different groups of staff. Other causes of delay are outside the direct control of NHS acute trusts. NHS acute trusts considered that external causes of delay were often due to waits for social services assessment and for social services funding, the lack of a place in a nursing or residential care home, and delays in the provision of home care services. This underlines the importance of early planning and contact with other agencies to make arrangements. Other causes reported were delays in reaching agreement with the patient and family over the nature of continuing care services to be provided. A move to a residential or nursing home is an important step for a patient. They may require some time in reaching such a key decision and in making their choice.

Many hospitals have introduced ways of improving the quality and promptness of patient discharge. Around 70 per cent of NHS acute trusts have now appointed a discharge co-ordinator to work closely with a wide range of staff inside and outside the hospital in overcoming obstacles to appropriate and prompt discharge. This compares with 42 per cent in 1997. Nearly 60 per cent of NHS acute trusts now make use of a discharge lounge, designed to provide a suitable environment in which patients can wait before leaving hospital, while releasing beds promptly for patients being admitted. This is a three-fold increase in two years.

Our survey suggests that more acute trusts could bring forward planning for patient discharge. Many could notify social services of their patient's requirement for assessment at an earlier stage. For example, currently only around 40 per cent of NHS acute trusts first notify social services of an emergency patient's need for assessment at the time of their admission, rather than during their stay in hospital. If information were shared more widely and earlier, social services might find it easier to initiate patient assessment and ongoing care services.

Recommendations for the NHS Executive

- The NHS Executive should:
 - provide a lead in encouraging NHS trusts to develop the use of information technology systems (including the related organisational change likely to be necessary) that would enable them to monitor and plan better the use of inpatient beds and other key resources, and manage better inpatient admission to hospital;
 - promote the development of the role and responsibilities of bed managers through issuing good practice guidance to NHS trusts (along the lines of the NHS Executive's recent good practice booklet on the role of discharge liaison nurses) and encouraging the provision of training in bed management functions;
 - encourage NHS trusts to play their part in improving co-ordination between different professional groups within hospitals, and between hospitals and external care agencies, so that collectively, they provide a prompt and integrated progression of appropriate care;
 - make use of the data from the first national survey of admissions, bed management and discharge practices, undertaken for this examination by the National Audit Office, to encourage progress amongst NHS acute trusts towards fuller implementation of good practice, where appropriate. Such work could be taken forward by the Department of Health's action teams; and
 - encourage further the evaluation of initiatives within the NHS trusts, and the dissemination of information about successful practice throughout the service by exploiting the NHS's web-site and the national database of good practice on the NHS Learning Network.

Recommendations for NHS acute trusts

On improving the planning of patients' stay in hospital and liaison with other agencies

- Our work suggests that more NHS acute trusts could:
 - ensure their admissions policies which set out clearly good practice and how resources can be used optimally focus on how the hospital will schedule resources, such as beds and theatre time, for elective patients (paragraphs 1.19 to 1.20);
 - agree and circulate their admissions, bed management and discharge policies more extensively outside the NHS acute trust. This would enable others, such as general practitioners, to influence, understand better, and comment on how the hospital plans to admit the patients they refer to them, and how they deal with peaks in demand for beds. Agreeing and circulating discharge policies allows local authorities, general practitioners, social services and others to influence and have a clear understanding of, the hospital's arrangements for planning and co-ordinating discharge (paragraph 1.20);
 - make use of integrated care pathways spelling out clearly the agreed roles and responsibilities of all involved in the handling of patients with particular conditions in order to avoid duplication or delay in the provision of patient care, and co-ordinate more fully the roles played by the different care professionals in the treatment of patients (paragraph 1.21); and
 - make more effective use of their knowledge of patterns of emergency admissions to assess likely demands on their resources, and better use of tools to improve planning of the number and type of elective admissions they can accept (paragraph 1.17).

On improving the scheduling of patient admission to hospital

Many NHS acute trusts could improve their arrangements for scheduling patient admission by:

- developing improved systems for maintaining records of all resources, such as beds and theatre time committed to date, and for scheduling beds for elective patients from the time they are invited in and throughout their expected length of stay. This would help to reduce the risk of cancelled operations (paragraph 1.22);
- agathering more detailed information about elective patients and the resources needed for their care when adding a patient to the waiting list in order to help hospital consultants in planning patient admissions (paragraph 1.23); and
- involving other professionals, such as bed managers, in the decisions about the number and type of patients to invite in on each day to ensure that the full impact of these decisions on hospital resources is understood (paragraph 1.24).

On improving the admission of patients

In order to reduce the number of cancelled operations and the length of stay for some patients, more NHS acute trusts should:

- make use of pre-assessment clinics to assess elective patients' fitness for treatment, reduce patient anxiety before admission, and facilitate same day admission (paragraphs 1.27 to 1.29);
- routinely admit more elective patients on the day of their procedure, where appropriate, to reduce length of stay and release hospital beds (paragraphs 1.30 to 1.32);
- find ways of preparing elective patients for theatre at a place other than on an acute ward, for example, by introducing admissions lounges (paragraph 1.33); and

introduce admissions and observation units to smooth the flow of emergency patients into hospital, improve patient care, and enable those patients not requiring acute care to be discharged appropriately. As part of the Department of Health's Accident and Emergency Modernisation Programme, almost all hospital Accident and Emergency Departments will have an admissions unit or observation ward by the end of July 2000 (paragraphs 1.36 to 1.38).

On developing the role of bed managers

- In many NHS acute trusts there is substantial scope to develop the role of bed managers by:
 - introducing information systems to provide bed managers with timely and accurate information on current bed occupancy and utilisation, as well as short-term levels of planned elective admissions, likely emergency patient admissions, and likely patient discharges (paragraphs 2.27 to 2.29);
 - making better use of their detailed knowledge of patterns of patient admissions and discharge, patterns of patient outliers (patients of one specialty placed in a ward designated for patients of other specialties) and bed utilisation, to help plan elective patient admissions, and, in the longer term, the bed complement and configuration within the hospital (paragraph 2.24);
 - ensuring that they have sufficient authority and reporting powers, and are given sufficient support from senior management so they can take necessary action to resolve bed crises (paragraph 2.23); and
 - developing their training and professional status, and encouraging the growth of networking between bed managers in neighbouring NHS trusts to help disseminate good practice, tackle generic problems and help manage bed demand pressures across the NHS trusts in their area (paragraph 2.25).

On tackling delays in discharges

- There is scope for more NHS acute trusts to follow the lead set by others by:
 - planning patient discharge earlier before or at the time of the patient's admission and by examining on a regular basis the internal causes of delayed discharges and working to resolve the obstacles identified (paragraph 3.15);
 - tackling external causes of delay, for example, by notifying social services more promptly of a patient's need for assessment which may help them initiate patient assessment and ongoing care services (paragraphs 3.11 and 3.15);
 - developing the role of the discharge co-ordinators to ensure that any internal causes of delayed discharge are addressed, and to secure the maximum degree of co-operation between health and social services to meet the needs of discharged patients (paragraphs 3.16 to 3.19);
 - providing suitably situated and staffed discharge lounges for patients ready to leave hospital, to enable them to vacate beds promptly and allow new patients to be admitted to them (paragraphs 3.20 to 3.23); and
 - providing alternative services, such as home support, to allow patients to return home promptly, as well as step-down care beds, to be used where there are delays in the provision of services from other care providers and where occupation of an acute ward bed is no longer appropriate (paragraphs 3.24 to 3.25).