NATIONAL AUDIT OFFICE

REPORT BY THE
COMPTROLLER AND
AUDITOR GENERAL

NHS Accident & Emergency
Departments in England

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Comptroller and Auditor General  

National Audit Office  
8 July 1992

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Summary and conclusions

1 About 11 million people a year seek medical attention in Accident & Emergency departments in England, and members of the public often gain their first impressions of National Health Service (NHS) hospitals on visits to Accident & Emergency departments.

2 Patients attend Accident & Emergency departments with a wide variety and range of illnesses or injuries. Only a small proportion are seriously ill or severely injured, but these patients require immediate attention from highly skilled medical and nursing staff. In order to deal with the full range of demands placed upon them, but especially the needs of those who are seriously ill or severely injured, the departments must have skilled staff and essential equipment available at all times.

3 This report gives the results of a National Audit Office examination of Accident & Emergency departments in England. A companion report deals similarly with the departments in Scotland. Wales has not been included in this examination, but many of the National Audit Office’s findings and conclusions may be relevant to purchaser authorities and provider hospitals in the principality.

Main findings and conclusions

4 The National Audit Office concluded that, allowing for constraints outside the departments’ control, the Accident & Emergency departments they visited were being well run on a day-to-day basis. But the examination also pointed to opportunities for more positive management, which would be assisted by:

- stronger representation of Accident & Emergency departments in hospital management (paragraph 2.4);
- much more flexible and capable computerised management information systems (paragraph 2.10 and Figure 3);
- measures to improve management of the departments’ rising workload (paragraph 2.24, Figure 4 and paragraphs 3.8–3.14);
- consistently better use of nurses’ skills (paragraph 2.32 and Figures 5 and 6);
- monitoring the adequacy and timeliness of support to the departments from other specialties and services (paragraphs 2.46–48);
- better communications with general practitioners (paragraph 2.55);
- development of systematic clinical audit (paragraph 2.61).

Of these, better management information would pave the way for objective assessment of the efficiency and effectiveness of the departments’ work.
Extra resources would be required for the implementation of some of the measures listed above; additional resources need to be assessed at local level against the longer term benefits resulting from implementation and alternative uses.

On planning and strategic issues

5 Some of the measures need to be supported by action involving regional health authorities and, as purchasers, district health authorities. For example, regions need to develop policy frameworks (eg for location of Accident & Emergency departments) and purchasers need to continue to develop quality standards linked to contractual targets (paragraphs 3.2–3.7 and Figure 9).

6 Numbers of new attendances at Accident & Emergency departments have continued to rise, currently to more than 11 million a year. Concerted action is needed to ensure that patients receive the most appropriate health care and that the departments are not overloaded with patients who might be better treated elsewhere (paragraph 3.11 and Figure 11). While some departments have made good progress in reducing numbers of return attendances, these could be further reduced in some places (paragraph 3.14).

Medical staffing

7 Towards the end of the National Audit Office examination, the Joint Planning Advisory Committee (which advises the Secretary of State for Health on the numbers of doctors in training) recommended that there should be an increased number of doctors in training in Accident & Emergency departments. This was intended to meet forecasts of appointments of an additional 72 Accident & Emergency consultants in England in the three years to the end of 1995. In May 1992 the Department of Health asked regions to provide details of their plans for implementing the increased numbers of training posts, which would have to precede increases in numbers of consultants.

8 The expected increase in numbers of Accident & Emergency consultants is consistent with National Audit Office findings that experienced medical staff in Accident & Emergency are often overstretched. Health authorities and providers need to consider how quickly they can implement the planned increases, whilst taking account of other calls on their resources. They should ensure that new posts are deployed to achieve the greatest benefits to quality of service for patients (paragraphs 3.15–3.21).

Severe injuries

9 In 1988 the Royal College of Surgeons urged action to improve the care of patients with severe injuries, a view which professionals in Accident & Emergency have strongly endorsed. Taking account of these views and their own findings, the National Audit Office concluded that:

- early and continuing improvements are needed to ensure uniformly good provision for care of all severely injured patients (paragraph 3.32 and Figure 13);
- the Department of Health and the NHS should consider how trauma audit should be carried forward (paragraph 3.38).
General conclusions

10 Accident & Emergency departments have been undergoing a long process of development, gradually moving away from the outdated concept of casualty departments. There has been good progress over the last 30 years, and the expected increases in numbers of experienced medical staff in Accident & Emergency departments should now pave the way for further substantial improvements. The National Audit Office examination suggested that potential benefits of the increased staffing include better training and supervision of inexperienced doctors. Other measures leading to improved quality of service to the public depend on better information systems and planning. While the implementation of some improvements will be subject to assessment of local priorities for Accident & Emergency services, and the competing claims of other specialties and services, purchaser/provider contracts offer a focus for agreeing priorities for action.
Part 1: Introduction

1.1 The primary task of Accident & Emergency departments is to care for and treat ill or injured people, quickly and at any time. This includes minimising numbers of deaths and degrees of disabilities. Patients comprise:

- those with life-threatening illnesses or injuries, who require immediate medical assessment and may need resuscitation;
- those with serious illnesses or injuries who require admission to hospital;
- those with minor illnesses or injuries, who can often be quickly discharged after treatment.

The departments require 24 hour, 7 days a week medical and nurse staffing, and prompt support from other hospital specialties and services. The Accident & Emergency service must be available to all patients who need to use it.

1.2 There are some 235 main Accident & Emergency departments in England (Figure 1), but there is no reliable, collated information on the total cost of their services.

1.3 The numbers of new patients seen in Accident & Emergency departments have steadily increased, from about 9.2 million in 1979 to 11.2 million in 1990–91. New Accident & Emergency patients outnumber those new patients seen as outpatients (see Figure 2), and patients’ first impressions of hospital services will therefore often be gained on visits to Accident & Emergency departments.

1.4 There has been considerable progress in developing hospital Accident & Emergency services over the last 30 years. Appendix 1 summarises developments since 1962, when the Platt report found that casualty departments, as they were then called, were inadequate and largely unmanaged. The report drew attention to the need for substantial changes, including renaming them as Accident and Emergency departments in order to emphasise that they were not intended for casual attendance.

Scope of National Audit Office examination

1.5 Against this background, the National Audit Office examined the management and organisation of Accident & Emergency departments, and relevant planning and strategic issues. They carried out their main fieldwork and discussions between May and December 1991, undertaking detailed examination of Accident & Emergency departments in six English hospitals which between them see more than 400,000 new and return patients a year. At each of the six, the National Audit Office examined factors bearing on efficient and effective working of the department, including management information, workload, resources and support from the rest of the hospital. The National Audit Office supplemented this work by examining specific topics at the departments in another five hospitals. Unless otherwise stated, references in the text are to the six where the National Audit Office carried out their detailed examination, the results of which are recorded mainly in Part 2.

1.6 Part 3 of the report covers planning and strategic issues affecting Accident & Emergency departments. Since April 1991, like other hospital services, Accident & Emergency services have been the subject of contracts between purchasers (district health authorities) and providers (directly managed units or NHS trusts). The National Audit Office excluded consideration of the
Figure 2: New attenders in Accident & Emergency and Outpatient departments

Accident & Emergency departments

Outpatient departments

11.2 million

8.5 million

Source: Department of Health.

Note: Represents 1 million new attenders.

Figure 2 shows that in 1990-91 new attenders at Accident & Emergency departments outnumbered those at outpatient departments.

departments' role in major disaster planning because this would have greatly widened the scope of the study.

1.7 At the National Audit Office's request, all 14 regional health authorities provided details of their plans and strategies for Accident & Emergency services, and several also provided examples of planning by districts. The National Audit Office asked purchasers in the areas visited to inform them of any important matters relating to Accident & Emergency services in their area, and subsequently visited two district health authorities following responses to this request. The National Audit Office consulted Chief Ambulance Officers covering the areas of the six full hospital visits and a wide range of professional bodies.

1.8 Appendix 2 lists the hospitals where the National Audit Office carried out detailed and specific examinations, and identifies other sources of information taken into account in this report. Information systems in the Accident & Emergency departments visited were not sufficiently well developed to support full assessment of the efficiency and effectiveness of their activities. For this reason, much of the evidence underlying the National Audit Office's findings reflects direct observation or interviews with medical, nursing, support staff and managers in all 11 hospitals visited. The report also takes account of discussions with representatives of professional bodies and information drawn from published reports. In drawing their conclusions, the National Audit Office used only information which they were able to corroborate.
Part 2: Management and organisation of Accident & Emergency Departments

Introduction

2.1 Accident & Emergency departments have to cope at any time of the day or night with patients suffering from many different illnesses or injuries. In order to do so, the departments need to be appropriately staffed, well organised and managed, and fully supported by other specialties and services.

2.2 Each of the six hospitals where the National Audit Office carried out their full examination had a management structure which included some formal means of representation of the Accident & Emergency department at hospital management level, either directly or indirectly. This was well provided for at Leicester Royal Infirmary and at St James's University Hospital, Leeds, where each had a consultant as clinical director for Accident & Emergency who was also a member of the hospital’s management group.

2.3 In all six departments, day-to-day management was vested in either an Accident & Emergency consultant or a small multi-disciplinary group. None of the departments was in control of a budget covering all relevant resources. Clinical directors or management groups had the authority to make flexible use of all the medical and nursing staff and other resources available to them. But radiographers, receptionists and porters were usually controlled by other managers, outside the Accident & Emergency department, and these services sometimes ran to timetables which were not well related to the Accident & Emergency departments’ needs.

2.4 In the National Audit Office’s view, the Accident & Emergency departments visited were being well run on a day to day basis, though constrained by factors which were not wholly within their managers’ control. Detailed management structures and the departments’ representation at hospital management level are best determined locally. All Accident & Emergency departments should be represented in such a way that their high public profile and the needs of their patients are taken fully into account when decisions are made which affect their services. Those managing the departments need some influence, possibly including budgetary responsibility, over deployment of all the services provided within the departments.

Management information

2.5 Accident & Emergency departments’ information systems need to be able to handle three broad categories of data:
- Administrative: to keep personal details and a daily register of all attenders;
- Managerial: to assist efficient management, including efficient deployment of staff;
- Clinical: to facilitate clinical management and audit, for example, by collating diagnoses and investigations carried out on patients.

Purchasing authorities also need information to assist their needs assessments and monitoring of performance against contractual targets.

2.6 The six departments visited all used or were introducing computerised Accident & Emergency department information systems which differed in the number and range of functions which they offered. The National Audit Office also examined a different system in the Accident & Emergency department at the Royal Sussex County Hospital in Brighton which had been developed from the consultant’s own user specifications.
Figure 3 shows whether the systems seen in the seven departments could cope with a range of information requirements. Only the Brighton system was able to cope with all 15 functions. There were terminals throughout the Brighton department, and nursing, medical and administrative staff regularly used the system. It allowed the consultant to monitor staff activities, to set targets and to monitor achievements, and enabled staff to track patients through the department.

<table>
<thead>
<tr>
<th>Key Data Items</th>
<th>Whether the System Provided the Function</th>
</tr>
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<tbody>
<tr>
<td>Register of patients seen</td>
<td>Yes</td>
</tr>
<tr>
<td>Patient's total time in department</td>
<td>No</td>
</tr>
<tr>
<td>Record of hospital admission</td>
<td>Yes</td>
</tr>
<tr>
<td>Type of attender</td>
<td>No</td>
</tr>
<tr>
<td>Type of incident</td>
<td>Yes</td>
</tr>
<tr>
<td>Source of referral</td>
<td>Yes</td>
</tr>
<tr>
<td>Record of patient's discharge</td>
<td>Yes</td>
</tr>
<tr>
<td>Doctor/nurse dealing with patient</td>
<td>Yes</td>
</tr>
<tr>
<td>Investigations</td>
<td>Yes</td>
</tr>
<tr>
<td>Conditions</td>
<td>Yes</td>
</tr>
<tr>
<td>System Functions</td>
<td></td>
</tr>
<tr>
<td>Analysis of patient's time in department</td>
<td>Yes</td>
</tr>
<tr>
<td>Letters to general practitioners</td>
<td>Yes</td>
</tr>
<tr>
<td>Database to clinical information</td>
<td>Yes</td>
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<tr>
<td>Ad hoc enquiries</td>
<td>Yes</td>
</tr>
<tr>
<td>Communication</td>
<td></td>
</tr>
<tr>
<td>Linked to hospital Patient Administration System</td>
<td>Yes</td>
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Source: Evidence from National Audit Office visits.

Figure 3 shows the extent to which computerised information systems in seven Accident & Emergency departments could cope with 15 information requirements.

2.8 Elsewhere, each of the computerised systems in use had some disadvantages. For example, where there were no links to patient administration systems, the details of patients admitted to hospital had to be entered twice. And the absence in some departments of a complete range of information about conditions seen, investigations and treatments, and limitations on diagnostic coding, were inhibiting clinical audit. These disadvantages mainly reflected inherent weaknesses in the systems, though all were undergoing developments which should lead to improvements.

2.9 All seven systems recorded information about the total time patients spent in the departments. But, with the exception of the system at Brighton, they could not usually provide more detailed analysis. Accident & Emergency consultants and nurse managers need information on how long patients have to wait:
- to be assessed by a nurse;
- to see a doctor;
- to have an x-ray;
- to see a doctor from another specialty;
- for admission to the Accident & Emergency ward or another hospital ward;
- to be discharged.

With such information they could identify and deal with bottlenecks in treating patients.

2.10 The National Audit Office conclude that the efficiency of Accident & Emergency departments would be enhanced by management information systems which can handle quickly the kind of information listed in Figure 3. They should also provide information which purchasers need in order to monitor providers' performance. Manual systems cannot cope adequately with the rapid flow and high volume of data, nor can they analyse the information quickly enough to meet managerial, clinical and purchasing needs. Computerised systems are therefore likely to be needed, although their implementation will depend on availability of resources for information technology developments. The choice of system will depend on local needs and cost, and evaluation of potential benefits.

Accident & Emergency workload

2.11 Most members of the public who attend Accident & Emergency departments do so to seek medical attention which they believe they cannot obtain, or cannot obtain quickly, elsewhere. To this extent, the departments' workloads are demand led. Nevertheless the departments can influence their workloads in varying degrees over the following range of factors.

Number and nature of new attenders

2.12 Nationally, the number of new attendances at Accident & Emergency departments has been steadily increasing for many years. As well as numbers of patients, the workload is also determined by the patients' ages and health status.
status and the complexity of their conditions (termed “patient dependency”), all of which can vary widely. There has been some work to assess the effects of patient dependency on Accident & Emergency departments’ workloads, and this difficult subject merits further study.

2.13 Open access to all those wishing to use the departments is fundamental to the provision of the Accident & Emergency service. However, senior medical and nursing staff in some of the departments visited, particularly those in urban areas, told the National Audit Office that they see many patients who, they consider, need primary care and could have gone to general practitioners (GPs). Accident & Emergency staff’s estimates of the numbers of such patients differed widely. In their view, an excessive number of such patients lengthened waiting times for all except the most urgent cases, and added to the stress on staff dealing with more seriously ill or injured patients. Independent research findings have also suggested that some departments have high levels of attenders who might instead have gone to their GPs.

2.14 Departments can deal in a number of ways with patients who, in the view of Accident & Emergency staff, could have gone to their GPs. These ways include:

- agreeing to see all such patients, including those with very minor conditions;
- attempting to dissuade them from attending the department by means of notices, leaflets and advice;
- providing a primary care facility within the Accident & Emergency department.

All the departments visited had made some special attempts to deal with such patients. At Taunton & Somerset, staff had produced an information booklet for members of the public and consider that they now receive few patients who could have gone to their GPs instead. Staff at University College Hospital considered that it was not appropriate to turn anyone away from their department, and had set up a nurse practitioner service to offer care for minor medical cases. The Accident & Emergency department at King’s College Hospital provided a GP-led service as part of the department whilst continuing to advise patients on appropriate use of their GPs (Appendix 3).

Return attenders

2.15 Accident & Emergency staff ask a proportion of their patients to re-attend the department for follow-up treatment and review of their illness or injury. This includes review by more experienced medical staff of the treatment given by junior doctors. At each of the six departments visited, the proportion of new patients who were asked to re-attend in 1990–91 was within the range 12–22 per cent. At the lower end of the range, these rates reflected sustained efforts to reduce the numbers of re-attendances. Other patients were referred to GPs or to appropriate outpatient clinics for any follow up which they might need, thereby freeing Accident & Emergency staff to devote more time to caring for new patients and those return attenders who need to be followed up in the department.

Nature of the locality served

2.16 The locality served by an Accident & Emergency department can have a considerable bearing on its workload. For example, the department at Taunton & Somerset deals with tourists, often with minor ailments, while departments in inner city hospitals often receive homeless patients who are unlikely to be registered with a GP and may have a combination of health and social needs. Accident & Emergency managers can do little to influence these factors but should be able to alleviate the consequences, for example, by having nursing staff available who can deal quickly with minor injuries.

Patterns of attendances

2.17 Patients do not come to Accident & Emergency departments at regular intervals throughout the day and night. For example, the department at University College Hospital’s department is busiest on Monday and Friday mornings. At St James’s Leeds, the senior nurse manager had reviewed nurse staffing and attendance levels, and introduced a twilight shift so that more staff were available in the evening when the department was always busy. Staff rotas at the six departments aimed to reflect expected attendance levels, but did not take explicit account of patient dependency levels.

Layout of departments

2.18 The size and layout of an Accident & Emergency department affects the efficiency and quality of the service provided. The
departments visited varied considerably in their size and design and one was undergoing renovations. The Department of Health have invested £1.5 million to demonstrate ways of improving the quality of existing Accident & Emergency facilities and have issued guidance on the construction of new Accident & Emergency departments.

**Accident & Emergency beds**

2.19 Three of the departments visited had their own observation/short stay wards. This provision accords with the Department of Health's guidance and allows staff to monitor patients who cannot be sent home but without necessitating admission to a main hospital ward. Patients were normally allowed to stay in the Accident & Emergency wards for up to 24 hours, when they would either be discharged or transferred to another ward.

2.20 At two of the other hospitals, the Accident & Emergency wards had been withdrawn. At St James's, Leeds, a 16-bed ward, which had also been used as an overflow ward for acute medical admissions, was closed in December 1989, the Accident & Emergency department then had access to six beds on an orthopaedic ward, but the department's medical staff suggested that the loss of the observation ward had seriously affected their ability to cope with acute medical admissions in the winter months. Additional medical beds for use in winter months were subsequently made available in January 1992. Similarly, staff at Taunton & Somerset considered that withdrawal of their Accident & Emergency ward had led to some loss of flexibility in the ways in which they dealt with patients.

**Patients referred by GPs for admission to hospital**

2.21 Four of the departments visited acted as the hospitals' main receiving points for patients referred by GPs for admission. Of the other two departments, at Taunton & Somerset these patients usually went straight to the hospital wards; at Worcester most patients referred by GPs for admission were received at another hospital 21 miles away. The presence of these patients in the four departments acting as receiving points increased the departments' workloads, because the patients often had to wait to be seen by doctors from other specialties. Waiting times could be long, and in the interim the patients would be likely to require some attention from Accident & Emergency staff and would take up space, including examination cubicles. There could also be some duplication of medical examination of patients by Accident & Emergency doctors and doctors from other specialties. The consultants in Accident & Emergency and other specialties at Leeds General Infirmary were seeking to eliminate such duplication, thereby minimising patient waiting times and helping to relieve the pressure on Accident & Emergency staff.

**Other clinical activities affecting Accident & Emergency departments**

2.22 As well as their main functions, Accident & Emergency departments may encompass some other activities, including those arising out of consultants' special interests and responsibilities. For example, in three of the departments visited such activities included:

- At Leicester: hand and soft tissue clinics run by Accident & Emergency consultants.
- At Leeds General Infirmary: hand clinics run by an Accident & Emergency consultant, and taking up about half his time.
- At Worcester: Trauma & Orthopaedics clinics using Accident & Emergency staff and space; the Accident & Emergency consultant spent about half his time on orthopaedic work until April 1991 when an additional orthopaedic consultant was appointed.

These other activities took up staff time and space in the Accident & Emergency department, for example, by bringing more patients in at busy times. Where Accident & Emergency consultants are personally involved, it is important that their other activities do not reduce the available time for managerial and supervisory functions.

2.23 Whilst there may often be good reasons for carrying on other activities in Accident & Emergency departments, the National Audit Office consider that all of these should be properly justified, regularly reviewed, and organised so that they do not interfere with the care of Accident & Emergency patients.
The activities should be subject to separate contractual specifications, thereby helping to clarify responsibilities and use of resources. In addition, consultants’ job plans should allow time for necessary managerial and supervisory responsibilities in the department.

Conclusions on Accident & Emergency workload

2.24 Figure 4 summarises the kind of information which Accident & Emergency managers need and measures they could take to improve management of workload. The National Audit Office also suggest that purchasers should take the opportunity offered by contracts and related quality standards to encourage the departments to examine activities and manage their workloads more positively. For example, Accident & Emergency department staff could agree targets, based on local factors, for the proportion of patients asked to return for follow up treatment; they could then monitor results, in order to ensure that only those patients who need a further visit are asked to return. And scrutiny of how patients referred by GPs are admitted could lead to more efficient use of staff time and space in the departments, whilst at the same time improving the service to patients by minimising waiting times and eliminating duplication of medical examinations.

2.25 Conclusions on Accident & Emergency workload

Figure 4: Management of Accident & Emergency workload

Information Needed
- Profile of attendances, identifying factors likely to affect numbers of attendances.
- Analysis of conditions treated and/or patient dependency.
- Numbers of and reasons for return attenders.
- Effects of GP admissions on Accident & Emergency department.
- Use of Accident & Emergency beds.
- Other activities affecting the Accident & Emergency department.

Possible Measures
- Fine tuning of staff rotas, perhaps with staggered shifts.
- Targets for numbers of return attendances.
- Advice to patients on the appropriateness of their attendance.
- Special provision for homeless people or other categories of attenders.
- Regular arrangements for contact with other care services to deal with patients’ non-medical problems.
- GP admissions to by-pass Accident & Emergency department or arrangements designed to minimize adverse effects on the department.
- Clear hospital policies on use of Accident & Emergency beds.
- Close examination of other activities affecting the Accident & Emergency department.

Figure 4 suggests the kind of information which managers need and measures they could take to improve management of Accident & Emergency workload.

Nurses’ roles in Accident & Emergency departments

Workload and staff levels

2.25 Nursing in Accident & Emergency departments differs radically from that on hospital wards. This is mainly because the departments have a rapid throughput of patients, attending with diverse illnesses and injuries and requiring nurses to have a wide range of skills, particularly in assessing patients’ conditions.

2.26 The senior nurse manager in each of the three larger departments visited believed that the departments were under-staffed, preventing nursing developments which would have been of benefit to patients. It was not possible to confirm or refute this because there is no single methodology for setting nurse staff numbers or grade mix in Accident & Emergency departments. Simple comparisons between staff numbers and patients seen in different departments would probably be misleading due to factors such as patient dependency or layout of the department. However, nurse managers had attempted to match staffing to workload, making allowance for regularly busy times or factors such as the timing of clinics. At Leeds General Infirmary, staff were introducing a management aid which in time could help plan nursing staff resources to align them more closely to patient dependency.
2.27 In the National Audit Office’s view, work is needed to develop methodologies for assessing numbers and skills of nursing staff appropriate to Accident & Emergency departments, either from scratch or by adapting an existing methodology used in another clinical area. These would need to take account of other factors affecting nurse staffing such as medical staffing, the layout of the department and the mix of patients attending.

Triage

2.28 Triage is the term used to describe systems for allocating clinical priority to patients. All six departments visited were using, or introducing, triage though not necessarily in the same way or at all times of the day or night. There were also differing degrees of formality, for example, concerning training of triage nurses and the guidance available to them.

2.29 At Royal Preston Hospital, a relatively informal system relied upon the knowledge and common sense of experienced nurses. It also allowed members of the public to seek guidance by telephone before attending the Accident & Emergency department. A local evaluation of this system had suggested that it may have contributed to an overall reduction in numbers of new patients attending the department, because many prospective patients were referred to appropriate sources of treatment elsewhere.

2.30 Triage offers a sensible means of sorting patients into order of priority. It will assist in satisfying the Patient’s Charter standard which states that Accident & Emergency attenders will be seen immediately and their need for treatment assessed, and thus offers an opportunity for staff to give patients assurance and information shortly after they arrive in the department. Figure 5 shows how triage can contribute to smooth running of the Accident & Emergency department. The Department of Health have sponsored research to compare different methods of operating triage.

Nurse practitioners and extended roles

2.31 Of the hospitals visited, Middlesbrough General Hospital and University College Hospital have nurse practitioner schemes which entail the training of experienced nurses to diagnose, assess, treat and discharge certain types of patients without referring them to a doctor. Nurse practitioner schemes are being developed independently, following several alternative models. The Department of Health consider that too much central direction could stifle innovation and initiative at this early stage, but that there is a need to share experience. The National Audit Office suggest that, as nurse practitioner schemes become more widespread, guidance, based on existing good practice, would be helpful to staff wishing to consider establishing schemes in their departments.

2.32 In five of the six departments visited, some nurses were, after appropriate training, carrying out work such as suturing and plastering which, elsewhere, might fall to doctors. These extended roles differed from the work of a nurse practitioner mainly in that the patient remained the responsibility of a doctor. Figure 6 summarises potential benefits and possible costs of nurse practitioner schemes and use of extended roles. In the context of reducing junior doctors’ hours, the NHS Management Executive has advised general managers to

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**Figure 5: Triage**

**Potential Benefits**
- Patients see a doctor broadly in order of clinical priority, with potential for more favourable outcomes.
- Better communications with patients, eg on waiting times.
- Patients may be advised to seek care elsewhere, thereby relieving pressure on Accident & Emergency department.
- Better management of workload.

**Possible Costs**
- Extra nurses to run triage.
- Scarcity training or guidance needed.

Figure 5 shows how triage can help Accident & Emergency departments run more smoothly, though at some extra cost.

**Figure 6: Extended roles for nurses and use of nurse practitioners**

**Potential Benefits**
- Reduce patients' waiting times.
- Improve quality of care and patient satisfaction.
- Use skilled nurses more effectively.
- Help reduce pressure on junior doctors.

**Possible Costs**
- Extra nurses needed.
- Cost of special training.
- Duplication of training development.

Figure 6 suggests that wider roles for nurses can help Accident & Emergency departments provide a better service to patients.
consider, in consultation with nursing and medical colleagues, what might be done locally to make better use of nurses' skills.

**Medical staffing**

2.33 Figure 7 shows the medical staffing in the six departments at the time of the National Audit Office visits. At all except Leicester, medical staffing levels related to numbers of new patients fell well short of those suggested by the British Association for Accident & Emergency Medicine (see Table 1 in Appendix 1). As in most departments across the country, the doctor dealing initially with new patients at all six departments was usually a senior house officer or a clinical assistant. Clinical assistants are usually experienced doctors (often GPs) working part-time in Accident and Emergency departments; senior house officers are usually inexperienced, being at an early stage of their training, and they normally work full time in the departments for only six months.

2.34 Given their relative inexperience, senior house officers require supervision from more senior staff. In the departments visited, while Accident & Emergency consultants had substantial management and other responsibilities, they were generally available during normal working hours to supervise and advise senior house officers and to treat the more difficult cases. Where departments employed registrars or senior registrars, the consultants were able to share this load, generally resulting in a higher level of supervision of senior house officers. Clinical assistants and other doctors, such as associate specialists and staff grade doctors, who are not in training grades, can help to provide seniority and continuity in the department.

2.35 At night, and especially after midnight, when some departments visited were often busy, in order to obtain more experienced help all except one of the departments visited relied upon senior house officers calling a consultant or senior registrar from home, or seeking advice by telephone. Of the six departments, Leicester Royal Infirmary employed the highest number of registrars and senior registrars and was thus able to operate a rota for an Accident or Emergency doctor of at least registrar grade to be available on the hospital site at all times. This contrasted with Taunton & Somerset where, until early 1992, a single-handed consultant was regularly working more than 10 hours a day; he was then on call from home for the remainder of the 24 hours and was frequently called into the department. The same consultant was also clinically responsible for smaller Accident & Emergency facilities at two peripheral hospitals. All the departments had issued guidance on when to call in more senior staff, but many senior house officers still found this decision difficult, especially where they were obliged to call out the same individual on each occasion.

2.36 The National Audit Office conclude that consultant staffing of the six Accident & Emergency departments was often overstretched. This applied especially to the two departments with single-handed consultants where inexperienced doctors worked without direct supervision for most of the time. As more Accident & Emergency consultants are appointed, rota systems

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**Figure 7: Medical staffing in the departments visited**

<table>
<thead>
<tr>
<th>Department (New Attendees)</th>
<th>Consultants</th>
<th>Senior Registrars/ (Registrars)*</th>
<th>Senior House Officers</th>
<th>Clinical Assistants (half-day sessions per week)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Leicester Royal Infirmary (37,000)</td>
<td>3</td>
<td>2 (3)</td>
<td>14</td>
<td>none</td>
</tr>
<tr>
<td>University College Hospital (59,000)</td>
<td>2</td>
<td>1 (1)</td>
<td>12</td>
<td>none</td>
</tr>
<tr>
<td>Taunton &amp; Somerset (30,000)</td>
<td>1</td>
<td>—</td>
<td>4</td>
<td>none</td>
</tr>
<tr>
<td>St. James's University Hospital, Leeds (80,000)</td>
<td>2</td>
<td>2 (1)</td>
<td>10</td>
<td>57</td>
</tr>
<tr>
<td>Leeds General Infirmary (69,000)</td>
<td>2</td>
<td>-</td>
<td>11</td>
<td>variable</td>
</tr>
<tr>
<td>Worcester Royal Infirmary (33,000)</td>
<td>1</td>
<td>-</td>
<td>4</td>
<td>9</td>
</tr>
</tbody>
</table>

* These are mainly doctors in training to become Accident & Emergency consultants, and are often out of the departments working in other specialties.

**Note:** In addition, St James's, Leeds, employed an associate specialist who worked Monday to Friday, 9 am to 5 pm; Worcester Royal Infirmary employed two hospital practitioners who worked some sessions at weekends.

Figure 7 shows the split by grade of the doctors working in the six Accident & Emergency departments at the times of the National Audit Office visits.
should be used to minimise the times when inexperienced doctors do not have ready access to advice from an experienced Accident & Emergency doctor present in the department.

Support from other specialties and services

2.37 Accident & Emergency departments depend upon support from other specialties and various services. Professional opinion suggests that most of these should be readily available at very short notice on the same hospital site. The National Audit Office therefore paid special attention to how well the six departments visited were being supported. The arrangements at Worcester Royal Infirmary were unsatisfactory because the Accident & Emergency department was not co-located with all other hospital departments. The arrangements at the other five departments visited were as follows.

Support from other specialties

2.36 Each of the five departments had access to a wide range of medical and surgical specialties. Those which were always available on site included anaesthetics, general surgery, general medicine, orthopaedics and paediatrics.

2.39 Slow responses by doctors from other specialties delay patients' treatment or admission, and reduce the efficiency of other Accident & Emergency work by causing a backlog of patients waiting in the department, taking up extra space and staff time. Accident & Emergency staff at four of the five departments commented that responses from general surgeons were often rather slow, particularly for less urgent cases. Doctors were sometimes unable to attend quickly owing to the demands of their other work, for example, operating theatre lists or outpatient clinics. At Leicester, the Accident & Emergency consultants had established excellent working relationships with other specialties with the result that their department generally received timely and good support.

2.40 When senior house officers in Accident & Emergency seek support from another specialty, the doctor who initially attends is likely to be of the same grade. Accident & Emergency and other medical staff pointed out that:

- the first doctor on call to the Accident & Emergency department is often a senior house officer;
- medical protocol meant that doctors usually referred to a colleague of the same grade;
- senior doctors in other specialties may not attend straightaway owing to the need to attend to their other patients.

Delay to patient care results if a more experienced doctor then has to be called to give an opinion.

2.41 Some specialties cannot be available in every hospital with an Accident & Emergency department because of the need to concentrate specialist skills and equipment into a smaller number of centres of excellence. Thus, Leeds General Infirmary had support available on site from cardiothoracic and neurosurgical specialists; in the other departments visited, patients requiring attention from these specialties were normally transferred to the specialist centre. Accident & Emergency staff in these latter departments emphasised the importance of rapid communication of clinical information between themselves and the specialist centre, and had established means for this. For example, at Taunton & Somerset, the Accident & Emergency department could transmit brain scans to neurosurgeons elsewhere in order to obtain advice quickly on how patients should be treated and whether they should be transferred.

Support from hospital services

2.42 Accident & Emergency departments need prompt, and sometimes urgent, support from a range of hospital services. These include radiography, laboratory and pharmacy services. While none of the five departments was experiencing serious problems with services, long delays sometimes occurred outside normal working hours. This applied especially to radiography. Even where Accident & Emergency departments had their own x-ray facilities, some shared a single radiographer with the rest of the hospital at night; this meant that at times the radiographer would be called away, for example, to x-ray a patient in an operating theatre, and would not be available to the Accident & Emergency department.
Worcester Royal Infirmary

2.43 The support available to the Accident & Emergency department on site at Worcester fell a long way short of that at any of the other five departments visited. It also failed to meet standards advocated by professional bodies and specialists in Accident & Emergency medicine. Figure 8 shows the main deficiencies, which were detracting from patient care because key specialties and services were based on another site (Ronkswood) 2½ miles away.

2.44 These unsatisfactory arrangements had worsened over a number of years and had clearly been a matter of serious concern to the Accident & Emergency consultant and staff. Professional organisations commented to the National Audit Office that this extent of split-site working jeopardised the treatment of Accident & Emergency patients. In the National Audit Office’s view, changes which took place in 1987 (see Table 2 to Appendix 4), which increased the isolation of the Accident & Emergency department from the rest of the hospital, should have been preceded by full evaluation of their likely impact on the department. If this had been done, the worst features of the split-site working might have been avoided.

2.45 In mid-1991 the West Midlands Regional Health Authority approved proposals for the provision by autumn 1992 of temporary Accident & Emergency facilities to be co-located on the Ronkswood site with most of the supporting specialties and services. When these improvements are implemented, they should alleviate the worst of the existing deficiencies at Worcester. In the spring of 1992 the Region expected that the temporary facilities would be ready for occupation by the Accident & Emergency department in September 1992. A longer term solution depends on construction of new hospital facilities. In January 1992 the Region told the National Audit Office that its strategic intent remained to provide new, permanent Accident & Emergency facilities, co-located with other acute services, by the end of the decade at the latest.

National Audit Office conclusions on support to Accident & Emergency departments

2.46 The evidence obtained by the National Audit Office showed that each Accident & Emergency department needs a wide range of support available on the same site, and effective communications with those specialties not normally available on every site. Experienced medical help must be available at short notice at any time, and patient care may be prejudiced if this is not forthcoming. Similarly, key services must be available with challenging and measurable standards agreed with the purchaser.

2.47 There is no information held centrally as to how many Accident & Emergency departments in England may be affected by split-site working, like that at Worcester. The British Association for Accident & Emergency Medicine believed there were a few others, though that was probably the worst example. The National Audit Office suggest that purchasers should review annually with providers whether Accident & Emergency departments are adequately supported by other specialties and by necessary services, and should take urgent steps to remedy any deficiencies.

Figure 8: Deficiencies in support to the Worcester Accident & Emergency department

<table>
<thead>
<tr>
<th>Other Specialties</th>
<th>Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Surgery</td>
<td>All located on Ronkswood site, 2½ miles away from Accident &amp; Emergency department. Ill or injured patients requiring treatment from these specialties normally had to be transferred to Ronkswood.</td>
</tr>
<tr>
<td>General Medicine</td>
<td></td>
</tr>
<tr>
<td>Gynaecology</td>
<td></td>
</tr>
<tr>
<td>Anaesthetics</td>
<td>On-site service outside normal working hours limited to resuscitation. Other anaesthetic cover at these times available from Ronkswood.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Services</th>
<th>Facilities</th>
</tr>
</thead>
<tbody>
<tr>
<td>Radiography</td>
<td>On-site service by day. Only one radiographer on duty outside normal working hours, covering two sites. Long delays occurring out of hours.</td>
</tr>
<tr>
<td>Laboratory</td>
<td>Haematology and biochemistry technicians based at Ronkswood. Accident &amp; Emergency department’s blood samples normally sent by taxi, entailing delays to treatment of patients. Unstaffed facilities available for use if required.</td>
</tr>
<tr>
<td>Operating Theatre</td>
<td>After 9.00 pm theatre team based at Ronkswood covering both sites.</td>
</tr>
</tbody>
</table>

Figure 8 lists the main deficiencies in support to the Worcester Accident & Emergency department.
More generally, the National Audit Office suggest that Accident & Emergency staff should regularly monitor the adequacy, including timeliness, of support received from other specialties. Accident & Emergency consultants should also ensure, as far as possible, that junior doctors follow clear guidance on when to seek help. If monitoring identifies frequent or regular failures to obtain timely, necessary support, the consultants should seek the co-operation of the specialties concerned in finding solutions. They also need to monitor the quality of services provided to their departments. This should then provide them with evidence to show the consequences of any persistent shortcomings.

Facilities for children

Most children who require treatment in an Accident & Emergency department attend one that treats both adults and children. In these departments about one quarter of patients on average are children. In 1991, the Department of Health published standards for the care of children in Accident & Emergency departments and other clinical areas, and hospitals will be expected in future to take account of these.

Staff in the departments visited recognised the special needs of children. They aimed, for example, to ensure that children were seen quickly in order to protect them as far as possible from fear and distress. The departments generally achieved this by giving children a degree of clinical priority over adult patients, usually by allocating them a higher triage category than they would for an adult with the same condition.

All six departments visited had made some provision of separate facilities for children. All had designated play areas, although not always separated from the main waiting rooms; most had also attempted to provide separate examination and treatment facilities. Staff in all departments commended the rapid response of paediatricians to child attenders.

The National Audit Office noted that there was no consistent policy regarding access to non-accidental injury registers. Two hospitals held copies of the register for children in their areas; four could obtain information on the registers in other ways, but had no direct access. In the light of the Department of Health's advice on the welfare of children and young people in hospital, purchasers and providers should consider with other relevant agencies whether arrangements to detect abuse in children attending Accident & Emergency departments need to be strengthened.

Liaison with GPs and community health services

In view of their responsibilities for continuing care, GPs need to know when and why their patients have been treated in Accident & Emergency departments. Three of the departments visited were keeping GPs informed by letter of their patients' attendances. Of the others, Worcester planned to do so when their computer was fully installed, while the two Leeds departments were considering providing GPs with monthly lists of Accident & Emergency attenders. None of the departments organised regular meetings between GPs and Accident & Emergency consultants to discuss matters affecting their patients, though St James's had just appointed a GP liaison officer with hospital-wide responsibilities. Professional organisations, including the Royal College of General Practitioners, told the National Audit Office that they would welcome better communications between GPs and Accident & Emergency departments.

Four of the six departments liaised with nurses or health visitors who worked in the community to follow up attendances by, for example, children or elderly people. All the departments provided information to community nurses and maintained formal or informal contacts designed to ensure that patients receive any further care or attention which they might need.

Accident & Emergency departments and purchasers will increasingly use the contracting process as a vehicle for improving communications and contacts with GPs and other health care staff working in the community. Contracts could, for example, specify the information to be given to patients' GPs, and this is already happening in some places.
Liaison with ambulance services

2.56 Prior warning of patients being brought by ambulance, and information about their condition, enables Accident & Emergency departments to prepare for their arrival. The departments normally communicate with ambulance crews by means of messages relayed through ambulance control; but some staff in the departments visited believed that direct communications with crews would improve the quality of the information they receive. The Department of Health told the National Audit Office that some departments now communicate directly with emergency crews, and that they supported this development, which depends upon the availability of radio frequencies and the policy of ambulance services on use of radio channels.

2.57 Although each of the departments visited had formal or informal liaison arrangements with its local ambulance service, the National Audit Office found that ambulance crews usually take emergency patients to the nearest Accident & Emergency department in order to secure medical care as quickly as possible. The National Audit Office conclude that, where there is a choice of hospitals with Accident & Emergency departments, Accident & Emergency consultants and ambulance staff should discuss and agree in general terms the most appropriate destinations for emergency patients, based on factors such as distance travelled, the staff and facilities in the receiving hospital and the level of skills of local ambulance staff.

Clinical audit in Accident & Emergency departments

2.58 Clinical audit is the systematic analysis of clinical care. Whilst not a new concept, medical audit (which focuses on medical aspects of clinical care) was given impetus through its inclusion in the package of measures implementing the NHS and Community Care Act 1990. The Government's aim was to improve the quality of care delivered to patients within the resources available.

2.59 In the six departments visited, implementation of clinical audit had been impeded by limitations of information, lack of staff to process data or by the absence of hospital audit strategies. Nevertheless, some progress was being made. Most of the departments held regular audit meetings, though the scope and nature of these varied and none had yet established a systematic approach which would cover all key aspects of the work over a period. The audits were generally limited to medical aspects, and often did not take account of any examination of the clinical care provided by nurses and other professional staff.

2.60 It is particularly difficult to monitor outcomes for Accident & Emergency patients because most are quickly discharged after treatment or admitted to hospital in the care of another specialty. In developing clinical audit in Accident & Emergency, departments will need to work closely with other specialties and to develop methods of following up patient outcomes, possibly involving their GPs.

2.61 The National Audit Office conclude that clinical audit in Accident & Emergency departments needs considerable further development. It should be planned so that, over time, it examines all key issues affecting quality of services, and includes monitoring of the effects of improvements resulting from audit. It should involve non-medical Accident & Emergency staff and should be extended to include other specialties and services.
Part 3: Planning and strategic issues

3.1 This part of the report outlines planning, quality and strategic issues relevant to all Accident & Emergency departments. While concerned with matters of wide application, it draws on some audit findings included in Part 2.

Planning and quality of service

3.2 The National Audit Office examination took place at a time when planning for Accident & Emergency services was adjusting to the introduction of purchaser/provider contracts from 1 April 1991. In practice, the funding arrangements for Accident & Emergency services remained essentially as they were before the changes were introduced.

3.3 Appendix 4 summarises the National Audit Office’s findings on planning for the provision of hospital Accident & Emergency services. At the hospitals visited, departments and purchasers had made some progress towards defining their aims and objectives, and these reflected the Department of Health’s requirements for a continuation of existing services in contracts for 1991–92. Purchasers and providers had begun to develop quality standards, for example on waiting times; development of methods for monitoring compliance with quality standards was at an early stage.

3.4 The contracting process provides a framework for departments and purchasers to discuss and agree:

- the aims and objectives of Accident & Emergency departments;
- quality standards;
- ways of monitoring standards.

In all the departments visited, the National Audit Office considered that, as contracting develops, contracts could increasingly be used as the focus for improvements. For example, a clear definition of the aims and objectives of a department would help to identify any other activities affecting the department which require separate contractual specification.

3.5 In the National Audit Office’s view, the management and clinical information regularly collected and available to Accident & Emergency departments is not yet sufficient to enable their efficiency or effectiveness to be assessed. Timely, reliable management information is essential for monitoring and assessment of performance and to provide evidence to support changes. In planning their information requirements, departments and purchasers should have regard to the indicators they wish to use to monitor contract performance. Appendix 5 lists examples of indicators which both might use in seeking to maximise the quality of service provided.

3.6 In formulating their contracts for Accident & Emergency services, purchasers and providers must determine how best to achieve an efficient and effective service within available resources, tailored to the needs of those attending the departments. Provider hospitals need to have regard to the elements of a good quality Accident & Emergency service, including:

- **Medical staffing and supervision**
  Sufficient experienced medical staff to provide effective training and supervision of inexperienced staff, direct assistance at busy times and timely on call support at other times.

- **Support**
  Timely support from other specialties and services and appropriate use of these resources by Accident & Emergency staff.

- **Nurse staffing**
  Nurse numbers and skills, and duty rotas, balanced with likely patient flows. Triage, to give patients speedy initial attention, assurance and advice, including an indication of how soon they can expect to be seen and to be treated.

- **Workload**
  Management of workload to keep return visits to an essential minimum and to examine critically the reasons for any increases in numbers of new patients.
Some activities in an Accident & Emergency Department

Ambulance men bring in a patient

The receptionist records basic details

Assessment by the triage nurse
A specialist examines a patient

Resuscitation team at work

Recuperation on the Accident and Emergency ward

Photographs by St Bartholomew's Hospital Education and Medical Illustration Services in the Accident & Emergency Department at St. Bartholomew's Hospital, London
Figure 9: Planning for Accident & Emergency services

Regions need to:
- Clarify their role in planning for Accident & Emergency services.
- In conjunction with purchasers, set policy frameworks, eg for the size and location of Accident & Emergency departments.
- Promote standards which purchasers and providers can consider for implementation.
- Monitor the effectiveness of purchasers.

Purchasers need to:
- Assess likely needs for Accident & Emergency services.
- In contracting, take account of provision by related agencies, especially general practice and the ambulance service.
- Agree measurable quality standards with providers.

Providers need to:
- Continue to work with purchasers in defining aims and objectives for Accident & Emergency services and in developing and implementing quality standards.
- Translate agreed policies and standards into measures which will result in an efficient and effective service.

Figure 9 suggests the division of responsibilities between regions, purchasers and providers in planning for Accident & Emergency services.

- Communications
  Further development of links with other services, especially GPs and the ambulance services.

3.7 The National Audit Office conclude that Accident & Emergency departments, district and regional health authorities, all have important roles to play in the provision of the Accident & Emergency service so that needs can be met in sensible and cost-effective ways (Figure 9). Their consideration should include periodic review of the location and size of the departments, taking account of population changes and local needs.

Rising attendances

3.8 Figure 10 shows that numbers of new patients attending Accident & Emergency departments in England have been rising at an average of nearly two per cent a year for the past ten years. Professional organisations

Figure 10: Attendances at Accident & Emergency departments in England

Source: Department of Health
*Note: From 1987/8 data collection on a financial year basis

Figure 10 shows that numbers of new patients have been rising on average nearly two per cent a year while numbers of return patients have been decreasing.
and many of those working in Accident & Emergency departments were concerned about the impact of this increase on resources for Accident & Emergency services and the quality of service provided to patients, especially those in relatively greater need.

3.9 The 1962 Platt report noted that large numbers of patients attending Accident & Emergency departments could have been treated by GPs. Many health professionals, in Accident & Emergency departments and professional bodies, suggested to the National Audit Office that large numbers of such patients still attend Accident & Emergency departments. Reasons for this may include:

- misconceptions about the service an Accident & Emergency department is intended to provide;
- lack of knowledge about the emergency services available from GPs, some of whom employ nurses to deal with minor injuries;
- failure by some patients to register with a GP;
- some patients’ perceptions that GP services are poor.

3.10 Appendix 3 summarises the research project based in King’s College Hospital which established a GP-led primary care service in the Accident & Emergency department. This was intended for patients who, Accident & Emergency staff felt, could have been treated by their own GPs. The researchers noted clear differences between GPs’ and hospital doctors’ treatment of these patients; the GPs opted for a less hospital-oriented approach which was likely to encourage patients to use their own GPs more effectively in future, thereby reducing the pressure on the Accident & Emergency department.

3.11 Accident & Emergency departments working in isolation to manage attendance levels are unlikely to have much success. Professional organisations considered that there was a need for joint planning of GPs’ and Accident & Emergency departments’ responses to patients’ needs for emergency care, and the Royal College of General Practitioners suggested that the departments should be more active in educating the public on appropriate sources of health care. Departments, purchasers and other relevant agencies need to develop a concerted approach to patients who could have used GP services instead. Figure 11 suggests possible elements of such an approach, partly reflecting methods used at some of the hospitals visited.

Return attendances

3.12 Some Accident & Emergency patients are asked to return to the departments for follow up care or clinical review. But unnecessary reattendances waste both patients’ and staff

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**Figure 11: Accident & Emergency attenders**

Information needed
- Analysis of patients by GP practice.
- Analysis of patients by diagnosis and/or triage category.
- Patients’ views on why they attended the department.
- Availability of GPs to patients wishing to register.
- Availability of GP emergency services.

Possible measures
- Extended triage whereby people may telephone the department for advice on sources of care.
- Notices and leaflets to patients explaining the department’s role.
- Advice from the triage nurse about when it is appropriate to consult a GP.
- Advice on likely waiting times and explanation that urgent cases must be seen first.
- Policy on return attendances designed to encourage patients’ effective use of their GPs.
- Good communications with GPs.
- Examination with purchaser and GP representatives of any apparent shortcomings in GP emergency service.
- Improved GP services, eg readily available emergency appointments and practice nurses.
- Special consideration of the problems of GPs working in difficult circumstances, eg in deprived inner city areas.
- GP service associated with the Accident & Emergency department.

Figure 11 suggests information needed and possible measures for a concerted approach to patients attending Accident & Emergency departments who could have used GP services instead.
time and resources. Accident & Emergency staff and professional organisations agreed that departments need clear local policies on return patients geared to:

- limiting the numbers of return patients to the necessary minimum;
- redirecting other patients to more appropriate sources of follow up treatment, including other hospital specialties, GPs or self care;
- educating patients on appropriate use of Accident & Emergency departments;
- concentrating Accident & Emergency resources on the treatment of new patients.

Evidence from the visits, supported by the British Association for Accident & Emergency Medicine, suggests that the proportion of new Accident & Emergency patients who might be required to make return visits should normally fall into the range 10 to 15 per cent, depending on local circumstances.

3.13 Numbers of return attenders have been decreasing nationally as a proportion of new attenders — from 42 per cent in 1980 to 22 per cent in 1980–91 (Figure 10). It is likely that this large reduction partly results from the increase in numbers of Accident & Emergency consultants over the same period, and in some instances from implementation of policies aimed specifically at reducing returns. Having an Accident & Emergency consultant can help reduce numbers of return attenders by providing junior doctors in the departments with:

- better supervision, reducing the need to bring patients back to check diagnoses or review treatment;
- better training, including guidance on when and where to refer patients for follow up treatment.

3.14 If return attendances in all Accident & Emergency departments in England fall within the range 10 to 15 per cent, then total attendances could be reduced by as many as 1.4 million a year, though some Accident & Emergency patients would still need follow up treatment, for example, at outpatient clinics or from their GPs. The National Audit Office consider that purchasers and providers should formulate joint policies on return attendances which should include contractual targets for their numbers. These policies should be aimed at ensuring that patients are referred to appropriate sources of follow up care, thus leaving Accident & Emergency resources to deal with new patients and those patients who need to return to the departments.

Review of medical staffing

3.15 As noted in Appendix 1, there has been considerable progress since the early 1970s in establishing the Accident & Emergency specialty and in appointing consultants. The numbers of Accident & Emergency consultants in post in England increased from some 130 in 1980 to some 200 in 1991, representing about 11 per cent of full-time Accident & Emergency medical staff. During 1991 the British Association for Accident & Emergency Medicine reviewed medical staffing in the departments and noted that:

- Forty-four Accident & Emergency departments each with over 20,000 attenders a year still did not have an Accident & Emergency consultant;
- of the remainder, the majority had a single Accident & Emergency consultant;
- there was a need to provide experienced medical presence for at least 16 hours a day, seven days a week, with a consultant or associate specialist available on call at all other times.

Departments without an Accident & Emergency consultant are normally in the charge of a consultant from another specialty. This is an arrangement which the 1970 review (see Appendix 1) concluded was not working well and resulted in over-reliance on inexperienced Accident & Emergency medical staff.

3.16 In November 1991, the Joint Planning Advisory Committee (which advises the Secretary of State for Health as to the numbers of doctors in training in each specialty) reviewed medical training grades in Accident & Emergency, taking into account the development of the specialty up to the end of 1995. That Committee took advice from the Specialist Advisory Committee for Accident & Emergency (representing the Royal Colleges of Surgeons and Physicians) which put forward proposals based on suggestions from the British
Association for Accident & Emergency Medicine; these suggestions strongly advocated a virtual doubling of the number of Accident & Emergency consultants between 1991 and the year 2000.

3.17 The Joint Planning Advisory Committee subsequently recommended to the Department that there should be increases in the numbers of doctors in training in England sufficient to support an increase of 24 new Accident & Emergency consultant posts a year in the three years to the end of 1995, a total increase of 72 new posts. This increase was intended to meet forecasts of appointments of Accident & Emergency consultants to the end of 1995. The Committee's recommendation also took account of the fact that in autumn 1991 about 20 Accident & Emergency consultant posts in England remained unfilled, mainly due to lack of suitable candidates. Figure 12 compares the intended increase with the

British Association for Accident & Emergency Medicine's suggestions for the longer term.

3.18 The Joint Planning Advisory Committee intends to review progress after two years in view of the rapid changes in manpower requirements in the Accident & Emergency specialty. The Department explained to the National Audit Office that the Committee had also agreed with the Specialist Advisory Committee on where the extra training posts would be allocated, and that the Department were asking health authorities for their plans for implementing the training posts.

3.19 Funding of the new Accident & Emergency consultant posts will be a matter for provider hospitals; in deciding when to appoint additional consultants they will need to take account of local needs, the views of the Accident & Emergency specialty, the Department's medical manpower policy and alternative ways of improving the quality of patient care within available resources.

Figure 12: Projected increase in numbers of Accident & Emergency consultants

Numbers of consultants in England

![Figure 12: Projected increase in numbers of Accident & Emergency consultants](image_placeholder)

Source: Department of Health

Note: (1) The Joint Planning Advisory Committee projections are made only up to 1995

Figure 12 compares the projected increase in the number of Accident & Emergency consultants with the suggestions made by the British Association for Accident & Emergency Medicine.
The expected increase in numbers of Accident & Emergency consultants is consistent with the National Audit Office’s finding in the six hospitals visited that experienced medical staff in Accident & Emergency are often overstretched. In addition, independent research findings have shown that the average working week of Accident & Emergency consultants, excluding time on call, exceeds 50 hours, the highest of any hospital specialty. In the National Audit Office’s view, increased provision of consultants and other experienced medical staff is essential as a means of improving Accident & Emergency services.

Whilst the medical staffing of Accident & Emergency departments is a matter for those providing the Accident & Emergency service, purchasers also have an interest because medical staffing directly affects the cost and quality of the service. Where they consider that the cost of providing an acceptable level of experienced medical staff is prohibitive, purchasers and providers should jointly consider alternatives, such as consortia of Accident & Emergency departments sharing medical staff, or minor injuries units staffed by nurses and GPs.

Patients with severe injuries

Patients with severe injuries require resuscitation and assessment by medical and nursing staff with special training and experience. (This also applies to patients with serious illnesses.) Patients’ prospects of survival are directly related to the speed and quality of initial resuscitation and treatment. Severely injured people form a very small proportion of Accident & Emergency patients, but they can arrive at any time of day or night, often outside normal working hours; medical and nursing staff capable of resuscitating and treating them therefore need to be available at all times.

In 1962 the Platt report stated that

"By far the most important function of an accident and emergency department is to deal with injured patients in urgent need of skilled medical attention at any time of day or night.”

But 26 years later the Royal College of Surgeons concluded in their 1988 report on the management of patients with major injuries that:

“...there are serious deficiencies in the management of severely injured patients and that these deficiencies must be remedied.”

The Royal College urged major improvements in the management of these patients, in pre-hospital care, hospital care and audit of trauma outcomes. Its recommendations on hospital services included a proposal for trauma centres to be set up to treat certain patients with life-threatening injuries.

Trauma centres

Trauma centres originated in the United States, and are hospitals staffed 24 hours a day at consultant level and receiving patients with severe life threatening injuries at any time.

There are differing views among health professionals on the appropriateness of trauma centres to the care of trauma patients in the United Kingdom. Some believe that trauma centres are essential to such improvements; others consider that the same improved outcomes for patients could be achieved at much lower cost by selective enhancements of the existing services for severely injured patients. All agree, however, that early significant improvements in services are essential.

Following consultation on the Royal College of Surgeons’ 1988 report, the Department of Health decided to fund a pilot trauma centre. This was established in July 1991, based in the Accident & Emergency department at the North Staffordshire Royal Infirmary, and supported by £2.8 million over three years from the Department. The new centre and five other Accident & Emergency departments in the area form a trauma system designed to enable the trauma centre to receive severely injured patients from a catchment population of some two million. One of six full-time consultants is immediately available at all times at the trauma centre to lead a trauma team to resuscitate and assess patients with severe injuries. The department’s nurse complement has also been increased to cope with their increased commitments and workload.
The Department are separately funding an evaluation by the Medical Care Research Unit at Sheffield University of the performance of the regional trauma centre and the associated system of trauma management. The evaluation is using data over the period 1989 to 1993 and is also examining the trauma care systems in two comparator areas, Hull and Preston, each of which has an Accident & Emergency department which has been selectively enhanced.

Pre-hospital care

All ambulance services in England are taking part in a national programme which aims to have at least one trained paramedic in every emergency ambulance by March 1997. At March 1991, there were over 3,000 ambulance staff with some paramedic training, more than 2,000 of whom had received full training under the national scheme, out of a total of 6,000 who require training in order to reach the March 1997 target. The ultimate aim of the paramedic programme is to provide properly trained staff, vehicles and equipment so that care can begin at the earliest opportunity, with the objective of reducing mortality and morbidity. Evaluation of the outcomes for patients treated by paramedics is carried out on the use of defibrillation.

Volunteer doctors working with the British Association of Immediate Care Schemes provide pre-hospital care in some areas. This voluntary organisation relies on charitable donations, and distribution around the country is patchy with no schemes at all in some areas. Where schemes apply, the volunteer doctors work closely with emergency services and may perform life-saving medical procedures or administer pain relief to victims at incident sites; in some serious cases they also accompany the patient to hospital.

Professional organisations and Accident & Emergency staff considered that pre-hospital care needed to be better integrated with the hospital service to ensure that all available resources, including voluntary services, are co-ordinated to achieve the best outcome for patients. This accords with the Department of Health's policy that contracts for Accident & Emergency departments and ambulance services should take full account of each other.

Hospital care

The departments visited all had different arrangements for ensuring that senior medical staff were available to attend patients with severe injuries. Those with single-handed Accident & Emergency consultants found it particularly difficult to guarantee appropriately experienced senior medical cover at all times. Leeds General Infirmary had a formal trauma team and protocol to guide junior medical staff in determining whether more senior help was required, while at Leicester there was always a doctor of at least registrar grade available on site. At Worcester, split-site working impeded the provision of definitive treatment of severely injured patients brought to the Accident & Emergency department.

The National Audit Office noted differences in provision and approach at the hospitals visited which could mean that patient outcomes vary. Until the Department of Health have drawn conclusions from the pilot trauma centre, health authorities and providers should address the quality of existing services with a view to making early and continuing improvements. A possible approach is suggested in Figure 13 overleaf.

Training in advanced trauma life support

The Royal College of Surgeons introduced the American Advanced Trauma Life Support course to the UK towards the end of 1988. The course teaches the skills required to manage a patient in the early stages of trauma, and instructs participants in a structured team approach, with an experienced doctor acting as a trauma team leader. Professional organisations suggested that the course had led to substantial improvements in patient care by disseminating skills and encouraging those involved to reassess their approach to trauma care. By the end of 1991, around 700 doctors in the UK from a variety of specialties, particularly anaesthetics and Accident & Emergency, were expected to have completed the course.

There are several different courses in advanced trauma care for nurses, and they attend as observers on some of the courses for doctors. However, nursing staff in the departments visited were unsure about the relative merits of the courses on offer.
Figure 13: Severe injuries

Information needed
- Patient numbers, types of injuries, how and where they occur.
- Quality and availability of pre-hospital care.
- Provision of experienced medical cover in Accident & Emergency departments; timing of interventions, seniority of staff carrying out treatments.
- Availability of essential specialties and support services and communications with specialties not on site.
- Arrangements for transfers.
- Outcomes.

Essential measures
- Dialogue between the ambulance service and doctors about pre-hospital care.
- Guidance to ambulance crews on hospitals best able to deal with severely injured patients.
- Clear advance information to Accident & Emergency departments on the nature of injuries to patients being brought in by ambulance.
- Standards for availability of experienced medical staff.
- Standards for availability of essential specialties and support services and for communications with specialties not on site.
- Clear instructions for calling in trauma team or equivalent.
- Advanced life support training for key staff.
- Evaluation of outcomes, including effectiveness of pre-hospital care.

Figure 13 suggests a possible approach to improving the quality of services for patients with severe injuries.

3.35 The National Audit Office conclude that provider hospitals need to identify staff for whom advanced life support courses (including those available in care for patients with serious illnesses) are essential training. These staff, comprising doctors and nurses from Accident & Emergency and other specialties, should be required and funded to undertake the training, including any essential refresher courses. At the same time, the provision for nurses needs to be clarified.

Audit of trauma outcomes

3.36 The Royal College of Surgeons' 1988 report concluded that standards of hospital care for patients with severe injuries should be monitored through a national scheme. At May 1992 some hospitals had their own trauma audit; 50 hospitals were sending patients' details to the Major Trauma Outcome Study based at Hope Hospital in Manchester. Based on a methodology devised in the United States, this study uses physiological data and information on the severity of injuries to predict the likelihood of a patient's survival and then compares it with the outcome. At May 1992 the study had over 17,000 cases, but there was not yet a sufficient number of severe cases to begin drawing statistically significant conclusions.

3.37 The study team have been refining the methodology to make the work more useful to participating hospitals and to make the hospitals' data collection task less onerous. They have also undertaken visits to the hospitals with a view to relating local results to different methods in use for managing trauma patients.

3.38 Because the arrangements are voluntary, there is little prospect that the Major Trauma Outcome Study will meet the Royal College of Surgeons' objective of national monitoring of standards of hospital trauma care. At May 1992, 66 hospitals were registered with the study but only 50 of these participated regularly, mainly because of the considerable amount of clerical work involved in organising the recording and collection of the requisite data. The National Audit Office conclude that the usefulness of the study will be limited while it is confined to the most enthusiastic Accident & Emergency departments. The Department of Health and the NHS need to consider how trauma audit should be developed and carried forward.
Appendix 1

Developments in Accident & Emergency services since the 1960s

1 The first major governmental review of Accident & Emergency services was the Platt report of 1962, which noted:
   - the large number of hospital “casualty” departments, with nearly 800 in England and Wales;
   - the difficulty in providing adequate, suitably experienced medical staff for this large number of departments;
   - the large numbers of patients attending departments who could have been treated by general practitioners;
   - the need for a service to deal with the seriously injured at all times, and in particular to deal with the increased numbers of road accidents.

2 The report recommended that the name “Casualty” should be altered to “Accident and Emergency” in order to emphasise that they were not intended for casual attendance. It also recommended that the number of units providing an Accident & Emergency service be greatly reduced, and that each remaining department should be supported by adequate numbers of medical staff, including three consultant surgeons each devoting a substantial part of time to Accident and Emergency work. The government adopted the report as the basis of subsequent policy of a two-tier provision, concentrating resources for accidents and emergencies, with separate provision where necessary for minor injuries and ailments.

3 A further review in 1970 by a committee of the British Medical Association concluded that the concept of consultant surgeons supervising Accident & Emergency departments was not working well; because of their responsibilities outside the Accident & Emergency department, consultant cover was often nominal, leading to low standards of work and poor planning. The following year the Joint Consultants’ Committee recommended the creation of a new grade of specialist consultant, the Consultant in Accident & Emergency Medicine. The first Accident & Emergency consultants were appointed in the early 1970s. A 1978 review by the same Committee concluded that the new specialty appeared to be developing in a satisfactory manner and affirmed that all Accident & Emergency departments should have effective supervision.

4 In 1988 the Royal College of Surgeons’ report on the Management of Patients with Major Injuries noted that there were by then 200 Accident & Emergency consultants in the United Kingdom, and training programmes for senior registrars bringing forward further consultants. By autumn 1991 there were some 200 Accident & Emergency consultants in England alone, although around one fifth of departments were still run part-time by consultants in other specialties.

5 In 1991, the British Association for Accident & Emergency Medicine made proposals for improving the quality of service in Accident & Emergency departments. The Association recommended that consultant numbers be increased by almost 200 in England by the year 2000. They had calculated this increase on the basis of the
number of existing Accident & Emergency departments in England, their attendance levels and the Association's assessment of requirements shown in Table 1, which also includes suggestions for numbers of senior registrars, registrars and senior house officers.

Table 1: British Association for Accident & Emergency Medicine recommendations on medical staffing

<table>
<thead>
<tr>
<th>Size of department (numbers of new patients)</th>
<th>Consultants</th>
<th>Registrars/ Senior Registrars</th>
<th>Senior House Officers</th>
</tr>
</thead>
<tbody>
<tr>
<td>25,000 or fewer</td>
<td>1</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>25,000-35,000</td>
<td>1</td>
<td>3</td>
<td>4</td>
</tr>
<tr>
<td>35,000-40,000</td>
<td>2</td>
<td>4</td>
<td>4</td>
</tr>
<tr>
<td>40,000-45,000</td>
<td>2</td>
<td>4</td>
<td>5</td>
</tr>
<tr>
<td>45,000-50,000</td>
<td>2</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>50,000-55,000</td>
<td>2</td>
<td>4</td>
<td>7</td>
</tr>
<tr>
<td>55,000-60,000</td>
<td>2</td>
<td>4</td>
<td>8</td>
</tr>
<tr>
<td>60,000-65,000</td>
<td>2</td>
<td>4</td>
<td>9</td>
</tr>
<tr>
<td>65,000-70,000</td>
<td>3</td>
<td>5</td>
<td>9</td>
</tr>
<tr>
<td>70,000-75,000</td>
<td>3</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>75,000-80,000</td>
<td>3</td>
<td>5</td>
<td>11</td>
</tr>
<tr>
<td>80,000-85,000</td>
<td>3</td>
<td>5</td>
<td>12</td>
</tr>
<tr>
<td>85,000-90,000</td>
<td>3</td>
<td>5</td>
<td>13</td>
</tr>
<tr>
<td>90,000-95,000</td>
<td>3</td>
<td>5</td>
<td>14</td>
</tr>
<tr>
<td>95,000-100,000</td>
<td>3</td>
<td>6</td>
<td>14</td>
</tr>
</tbody>
</table>

Table 1 shows the Association's proposals for numbers of Accident & Emergency medical staff, based on departments' attendance levels.

6 In November 1991, the Joint Planning Advisory Committee (which advises the Secretary of State for Health as to the numbers of doctors training in each specialty) reviewed Accident & Emergency training requirements, taking account of the projected development of the specialty up to the end of 1995. On these assumptions, the Committee agreed that there should be increased numbers of doctors in training in Accident & Emergency departments, and intends to review progress by health authorities and NHS trusts towards the targeted increases after two years.
Appendix 2
Accident & Emergency departments, health authorities and professional organisations consulted; bibliography

1 Accident & Emergency departments and district health authorities visited by the National Audit Office:

Full examinations at:
- Leicester Royal Infirmary
- University College Hospital, London
- Taunton & Somerset Hospital
- St James's University Hospital, Leeds
- General Infirmary at Leeds
- Worcester Royal Infirmary

Specific examinations at:
- Middlesbrough General Hospital
- Royal Sussex County Hospital, Brighton
- Royal Preston Hospital
- North Staffordshire Royal Infirmary, Stoke on Trent
- King's College Hospital, London

Districts visited:
- Bloomsbury and Islington
- Worcester and District

2 Regional health authorities and Ambulance Services which provided comments to the National Audit Office:

All 14 regional health authorities in England.

The National Audit Office consulted and received comments from the five ambulance services covering the Accident & Emergency departments where they undertook full examinations:

- Leicestershire
- London
- Somerset
- West Yorkshire
- Hereford and Worcester

3 Professional organisations which provided comments to the National Audit Office:

- British Association for Accident & Emergency Medicine
- Royal College of Nursing, Accident & Emergency Nursing Association
- Royal College of Surgeons
- Royal College of Physicians
- Royal College of General Practitioners
- Association of Anaesthetists
- British Medical Association, Committees for:
  - Central Consultants and Specialists (Accident & Emergency sub-committee)
  - General Medical Services
  - Public Health Medicine and Community Health
British Orthopaedic Association
British Paediatric Association
British Association of Immediate Care Schemes
Association of Community Health Councils in England and Wales
Institute of Health Services Management
Redbridge and Waltham Forest Local Medical Committee

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Appendix 3
Primary Care Research Project

1 This project, based in the Accident & Emergency department at King's College Hospital, started in 1988 and had the following aims:

- to develop a method for identifying primary care patients, i.e., those who come to the Accident & Emergency department with the kinds of problems appropriate to a GP;
- to investigate these patients' reasons for attending the Accident & Emergency department rather than going to a GP;
- to compare patient outcomes for consultations made by Accident & Emergency doctors and those made by GPs in the Accident & Emergency department;
- to evaluate patient satisfaction with the service;
- to assess Accident & Emergency staff attitudes to the service.

Local GPs were recruited to work as GPs (not as clinical assistants) from a room fitted out as a doctor's surgery within the Accident & Emergency department. Some of the primary care patients had consultations with hospital doctors and some with the GPs.

2 The project found that the most common reasons patients gave for attending the Accident & Emergency department was a problem with access to their GP; up to 47 per cent of patients gave this reason, depending on the time of day or week. Nearly one third of patients considered that their problem was not appropriate to general practice; patients with injuries were more likely to hold this view.

3 The project examined consultation style and content and found that GPs were far less likely than hospital doctors to order investigations such as x-rays or blood tests; they were also less likely to refer patients to other doctors in the hospital. Follow up of the hospital doctors' and the GPs' patients found no detrimental effects on patient satisfaction or care resulting from the GPs' less hospital-oriented approach. The project co-ordinators have commissioned further work to consider the economic implications of these findings for hospitals, GPs and patients who attend Accident & Emergency departments with primary care problems. In the meantime, they felt it likely that the GPs' approach was likely to encourage patients to use their general practices more effectively in future.

4 The research team found that the project promoted a better mutual understanding between hospital staff and GPs. The team is using material from the project in developing a training programme for teaching Accident & Emergency doctors skills in dealing with primary care patients. This work could have wider application, particularly since about half of senior house officers working in Accident & Emergency departments eventually go on to become GPs.
Appendix 4
Planning for hospital Accident & Emergency services

1 The NHS needs to plan and regularly review its Accident & Emergency departments, taking account of factors such as:
   - changes in demography or transport links;
   - availability of supporting specialties and services;
   - provision of GP and ambulance services;
   - changing public expectations and service standards.

Any developments in the acute sector and in related services should take account of the needs of Accident & Emergency services; otherwise services may become out of line, leading to poorer quality patient care and, at the extreme, danger to patients.

Table 2 shows what happened at Worcester when changes to hospital acute services had a consequent effect on the Accident & Emergency department.

<table>
<thead>
<tr>
<th>Table 2: Worcester Royal Infirmary</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre 1987: Acute services on two major sites over two miles apart. Relocation of the Accident &amp; Emergency department and other services, than located on the older of the two sites, to bring them closer to the other (Ronkswood) site delayed owing to shortfall in capital funds.</td>
</tr>
<tr>
<td>During 1987: General surgery moved to Ronkswood, in order to improve the efficiency of its service. Laboratory staff transferred soon afterwards. Accident &amp; Emergency department remained on the older site.</td>
</tr>
<tr>
<td>Impact on Accident &amp; Emergency of 1987 moves</td>
</tr>
<tr>
<td>Worsening of split site working.</td>
</tr>
<tr>
<td>Delays and a poorer service for Accident &amp; Emergency patients requiring attention from general surgeons.</td>
</tr>
<tr>
<td>Delays in processing of blood samples for Accident &amp; Emergency department, sometimes for emergencies.</td>
</tr>
<tr>
<td>Increase in the numbers of patients, including critically ill patients, requiring to be transferred.</td>
</tr>
</tbody>
</table>

Table 2 shows how changes in acute services resulted in a service falling well short of standards advocated by professionals in Accident & Emergency.

Planning by regional health authorities

2 Table 3 summarises the strategic planning approaches to Accident & Emergency services adopted by two of the 14 regions. Both had identified Accident & Emergency as a specialty with variations in quality across their regions, and requiring a region-wide approach linked to standards of good practice. They had examined Accident & Emergency services carefully and had begun to formulate planning guidance in the context of the purchaser/provider arrangements. By autumn 1991, none of the remaining 12 regions had adopted a comparable approach. By April 1992, in the light of the NHS reforms, the other regions had begun work in this area; for example Trent region had produced a model service specification for Accident & Emergency services.

3 The National Audit Office conclude that all regions need to clarify their role in planning for Accident & Emergency services. This should include setting a framework and clear standards at a strategic level for Accident & Emergency services, which purchaser districts and provider hospitals can then use in developing quality standards and targets in Accident & Emergency contracts.
Table 3: Strategic planning of Accident & Emergency services in two regions

South Western
September 1989 review of Accident & Emergency services with recommendations on quality standards.
Strategic statement for Accident & Emergency services in April 1991, one of a series for all specialties, with:
- types of Accident & Emergency service provided and in which hospitals;
- main components of service need (eg rising demand) and key requirement for development of quality (more Accident & Emergency consultants).

South East Thames
July 1991 review of acute services using Accident & Emergency services as its central focus. proposing:
- broad service aims and objectives for acute services;
- suggestions for broad service standards for Accident & Emergency, for example:
  "95% of the population served should live within 30 minutes ambulance "blue light" travel time of a major accident department."

Intended to assist:
- purchasers districts in
  - demonstrating service aims and criteria for assessing alternatives;
  - promoting quality standards.
- provider hospitals in
  - demonstrating standards and forms of service.
- the region itself
  - allocating resources, including capital;
  - developing and monitoring standards.

Table 3 summarises the strategic planning approaches adopted by two of the 14 regions in England.

Planning at local level

4 In line with the Department of Health's requirements, purchasers' contracts for 1991-92 required continuation of existing services. There were specific contracts for the Accident & Emergency departments visited, and district and hospital staff were beginning to develop service specifications and standards.

5 Purchasers are responsible for assessing health care needs, as an aid to determining purchasing plans, service specifications and contracts. These needs assessments will be complex and will take time to produce. The NHS Management Executive has emphasised the need for purchasers to take account of the work of other related agencies. In the case of Accident & Emergency services these are mainly general practice and the ambulance service. Contracting and needs assessment provide a focus for district health authorities and family services health authorities (who are responsible for overseeing general practice) to co-operate in defining the services their populations require. This process had begun in Camberwell with a view to possible joint commissioning in 1992-93 of a GP type service in the Accident & Emergency department at King's College Hospital.

6 None of the Accident & Emergency departments visited had been formally reviewed by hospital managers to establish whether they were providing an adequate and appropriate service to patients. The main constraints on doing this appeared to be inadequate management information and lack of management time. But the managers in all departments had made some progress with purchasers towards defining their aims and objectives and developing quality standards, particularly in areas of concern to patients, such as waiting times. Provision for purchasers' monitoring of providers' compliance with standards was not well developed and will depend heavily on further enhancements of Accident & Emergency computer systems.

7 The National Audit Office also noted work done by Accident & Emergency nursing staff on standards. For example, at Taunton & Somerset, nurses were developing standards on patients' privacy and confidentiality, and on drugs given to patients on discharge. Some of this work is also likely to be useful to purchasers in developing and monitoring quality standards in Accident & Emergency departments.
Appendix 5
Performance and quality indicators for Accident & Emergency services

Accident & Emergency departments and health authorities are devising performance and quality indicators for monitoring whether contract aims and objectives are being achieved and standards met. In addition, providers also need indicators which demonstrate efficient and appropriate use by Accident & Emergency departments of hospital resources. The National Audit Office suggest a range of possible indicators below, some of which would best be monitored using computerised information systems.

1 Waiting times for patients: there are a number of stages at which these might be measured, including waiting times:
   - to be assessed by a nurse;
   - to see a doctor;
   - to have an x-ray;
   - to see a doctor from another specialty;
   - for admission to Accident & Emergency or hospital ward;
   - to be discharged.

It would be for departments and purchasers to decide the level of detail they want, having regard to the capabilities of each department’s information system. Waiting time data could be used to identify bottlenecks in treating patients. Other data would be needed to identify causes. For example, if persistently long waiting times to see an Accident & Emergency doctor at a particular time of day were indicated, the person responsible for medical staffing would wish to examine the ratio of Accident & Emergency medical staff on duty to the numbers of patients requiring treatment at those times.

2 Waiting times to see a doctor, by triage category.
   This would show waiting times according to patients’ clinical priority, as assessed by Accident & Emergency staff. It would facilitate a focus on waiting times for certain categories of patient, for example those assessed as requiring urgent attention.

3 Staffing levels related to numbers of attendances; in total; at different times of day/night, week or month.

Numbers of attendances are crude measures of workload, because they do not take account of factors such as the severity of patients’ conditions. Staffing/attendances ratios provide an indicator of efficiency, but providers should interpret them with caution, and preferably in conjunction with other measures, for example waiting times.

More sophisticated measures of workload should in future be possible, for example using analyses of a department’s casemix. In the longer term, measures of patient dependency would further increase the accuracy of any comparison of workload and staffing, but these are at an early stage of development.
4 Ratio of return attenders to new attenders

Purchasers and providers would wish to compare the actual ratio with the contractual target; any difference would need to be examined to identify the possible cause, including the possibility that the contractual target might need to be revised to reflect local circumstances more closely.

5 Calls on other specialties and use of services

This would entail periodic reviews of the Accident & Emergency department’s use of hospital resources. These could be undertaken either within the department or by those responsible for the other specialties and services. The results would be of particular interest to hospital management. Accident & Emergency senior medical staff would have a clinical interest in, for example, whether less experienced Accident & Emergency medical staff were making appropriate calls on other specialties and appropriate use of x-ray and blood testing facilities.

6 Clinical indicators, such as:

- unscheduled reattendances of patients:
  Such data might indicate deficiencies, for example in the discharge information provided to patients.

- outcomes, for example, on resuscitation and trauma.

Examination of trauma outcomes should ideally employ the methodology being used in the national study (paragraph 3.36 of report). Any less formal local examination would be greatly assisted by summarised information on, for example, conditions, treatments and diagnoses. Individual cases could then be identified for examination of patients’ casenotes in order to review the ways in which the Accident & Emergency department and other specialties responded to the needs of these patients.
Glossary of terms

ambulance paramedic: a qualified ambulance technician with a valid NHS Training Directorate certificate in paramedic skills. These enable the paramedic to initiate intravenous infusion, perform endotracheal intubation and defibrillation and administer a specified range of drugs.

casualty department: term used prior to the 1962 Platt report describing a hospital service to patients who referred themselves; then provided in all hospitals regardless of size.

cardio-thoracic: specialty dealing with diseases of and/or injuries to the heart, lungs and major blood vessels in the chest.

clinical directorate: administrative unit of a hospital, composed of one or more specialties, usually headed by a senior doctor.

clinical priority: assessment of level of urgency of illness or injury.

defibrillation: administration of a controlled electric shock to the heart to restore normal rhythm.

diagnostic coding: recording medical diagnoses in a simple way making future analysis easier.

endotracheal intubation: placing of a tube below the larynx to allow artificial respiration to occur; on occasion can also be used as a route for drug administration.

GP: general practitioner.

haematology: the branch of medicine dealing with the study of blood.

minor injuries unit: walk in facility open during normal working hours for the treatment of minor conditions, usually staffed by GPs and nurses.

morbidity: ill health.

new patient: attendance by a patient to Accident & Emergency with an illness or injury unconnected with previous attendance.

neurosurgery: specialty dealing with surgery of the nervous system.

NHS: National Health Service.

paediatrics: specialty dealing with the care of children.

patient dependency: objective assessment of a patient's need for medical or nursing care.

primary care: term used to describe the initial point of contact with the service including general practitioners, dentists, chemists and opticians, supported by the community health services.

radiography: use of imaging technique to aid examination of the body.

registrar: a middle grade doctor in training for a specialty responsible for the care of a number of patients and also for supervising more junior doctors.
resuscitation: emergency treatment of any life threatening condition.

senior house officer: recently qualified registered doctor.

senior registrar: experienced doctor who is completing or has completed higher professional training but is not yet a consultant.

soft tissue clinics: clinics for the treatment of injuries to muscle, skin, etc (eg cuts, sprains, burns).

suturing: closing of a wound by stitching.

trauma: injury.

trauma centre: a centre for the treatment of people with severe or multiple injuries, with the full range of specialist facilities and with round-the-clock consultant cover.

trauma team: a multi-disciplinary team including senior staff with a designated leader caring for patients with life threatening injuries.

triage: system for allocating clinical priority to patients.