Ensuring timely handover of patient care – ambulance to hospital

A guide for the NHS to assist in the timely handover of patient care from the ambulance to accident and emergency, or other hospital ward or department.

October 2008
Foreword

Delays in the handover of care between the ambulance and the hospital services represent a poor patient experience of the NHS.

This document aims to provide Commissioners, all Acute NHS Trusts, Ambulance Trusts and Primary Care providers with a framework to make improvement in the timely handover of patient care between the ambulance and the hospital.

Patient delays and ambulance handover waits have the potential to impact on patient care as well as wasting valuable NHS resources. Throughout the year, delays can be experienced by both patients and ambulance crews but historically, these delays increase during the winter months as pressure builds in acute settings.

This winter of 2008/09 and going forward there will need to be focused work on ensuring timely handover thereby reducing unnecessary waits across the system. To achieve this it is vital that NHS organisations work together to develop systems and processes that manages patient care in an effective systematic way.

This guide highlights the key issues with current systems and offers practical guidance on how to analyse the problem and suggests recommendations for action to ensure timely handover of patient care.

Thanks go to Eric Gatling at South West Strategic Health Authority and Jane Ansell, external adviser to the South West Strategic Health Authority, who have produced this guide. The good practice was developed by South West Strategic Health Authority, in partnership with the local NHS.

Sir Ian Carruthers OBE
Chief Executive
South West Strategic Health Authority
As we are all well aware, it is patients who are, and should be, at the heart of the NHS. Continuously working to improve and sustain positive patient experience is therefore a key issue for all providers and commissioners of services. We know that patients express great satisfaction with emergency care services, particularly ambulance services and accident and emergency. However, we recognise there is no room for complacency and services must continue to scrutinise all areas of activity, maximising efforts to ensure that patients have a positive experience at all stages of their journey through the emergency care system and beyond.

Providing timely, coordinated and seamless care to patients as they are handed over from the ambulance service to accident and emergency is a key component in the delivery of high quality care. Delays at this stage can affect patient experience and opinion of the NHS so it is vital that acute trusts and ambulance trusts work together locally to ensure that patient needs are consistently being met during this important time.

This is why we are both so pleased to see that South West Strategic Health Authority has taken significant steps in tackling this important issue and learned lessons that will help them to continue to take this work forward.

South West Strategic Health Authority have used the experience and lessons they learned to put together this good practice guide, offering practical advice on how to to analyse issues and making useful recommendations at an operational level to help deliver best practice in timely patient care at handover.

Whether you work for an acute trust or an ambulance trust, it is vital that the NHS works together to do what is best for patients. That is why we would encourage all areas to ensure that they are continuing to take local action and show joint leadership and working in tackling this important issue.

This is in an area in which the public rightly expects the NHS to deliver and we owe it to our patients to ensure that this happens.

Peter Bradley CBE
National Ambulance Adviser

Professor Sir George Alberti
National Director for Emergency Access
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1. Overview

Delays in the handover of patient care have no place in the modern 21st century NHS. In the majority of NHS trusts across the country handovers happen smoothly and are well managed, but there are still areas where dedicated work is needed to reduce delays and improve the service offered to patients.

Whilst this guide does not change the existing and established definitions that govern the collection and reporting of patient handover delays, there is very clearly an operational need to ensure a culture of co-operation and an attitude of zero tolerance for delays is embedded across all organisations.

In addition, even where excellent processes, good intentions and the presence of appropriate governance are in place there can still be occasions when a breakdown in communication between the patient, the ambulance crew and the acute team may leave patients feeling as though their experience is not at the centre of the process. This in itself highlights what a key impact patient handover has in patients’ experience of emergency care and the importance of always making every effort to promptly acknowledge a patient’s arrival in the department, and indicate the next action that will occur.

This guide will:

- Restate the data definitions that are applicable to patient handover delays;
- Highlight key areas for focussed action including;
  - Handover process mapping;
  - Data collection;
  - Reporting;
  - Escalation;
  - Performance management;
- Provides a series of recommendations for actions that are aimed at assisting local health communities to deliver the timely handover of patient care from the ambulance to accident and emergency or any other hospital ward or department. To aid the reader these recommendations are identified throughout the document in the shaded boxes and presented as a checklist in Appendix 1;
- Offer insights into best practice and service improvement ideas that may assist the NHS to improve performance.

All Acute Trusts and Ambulance Trusts as well as Primary Care Trust commissioners are invited to consider this guide and to decide locally, in light of it, if there are any steps they could take to help improve patient handovers.
2. Why do we need to ensure timely patient handover?

Ambulance to hospital patient handover delays can be a symptom of a local care system that is poorly coordinated and not well managed across the different organisations in the NHS, and is particularly evident at times of pressure, for example during the winter season, and at busy times during the day and week.

The consequence of such delays are:

- Poor overall patient experience of the NHS which raises questions about patient safety and clinical risk issues;
- Reduced operational performance of both the Ambulance Trust and the hospital’s emergency care service.

**Patient Experience:** I was feeling very poorly and the ambulance team were taking me into the Medical Assessment Unit at my local hospital. When we arrived we were completely ignored, it was obvious that everyone was busy, I just wasn’t sure how long I would be on the trolley and I started to feel unwell again. The ambulance crew took my blood pressure and it was rising. After about 45 minutes the nurse was finally able to see me and find out what was wrong, within a couple of minutes the paperwork was done and I was moved onto a bed. I kept thinking what if someone else needed my ambulance.

Improvements should not only deliver better patient care, they should reduce the impact that delays have on the availability and response times of ambulance crews to life threatening calls and to the smooth flow of the patient through their care pathway. Delays in patient handovers at accident and emergency potentially increases the clinical risk to other patients who may be waiting longer for ambulances to reach them.

To help ensure that issues across the system are being addressed, acute trusts, ambulance trusts and commissioners should identify an executive lead that will be at the forefront of developing and implementing sustainable change. Each executive lead will ensure that the systems are put in place to ensure timely patient handover in their own organisation, addressing issues with delays if they occur, and to commit to working together with other organisations in the local community.

**Recommendation 1:** Acute Trusts, Ambulance Trusts and commissioners should identify an executive lead with responsibility for ensuring timely patient handover delays. Executive leads should commit to working together with other organisations in the local community.

Patient handover delays not only happen at accident and emergency departments. They could occur in any part of the hospital where the patient and their care is transferred from the ambulance service.
To ensure that organisations understand the real causes of handover delays wherever they occur it will be necessary to establish routine data collection and appropriate management controls in each area where patient handovers from the ambulance service occur. A detailed understanding of the causes of delays will then enable the development of a local action plan or service improvement programme to address local issues.

A number of operational issues that may impact on patient handovers, such as patient flow, bed management and escalation have also been identified and considered through work, including during the Emergency Services Collaborative, to support the delivery of the accident and emergency 98 percent four hour operational standard.

The use of breach analysis to understand why the flow of patients through accident and emergency took more than four hours has proved invaluable in resolving whole organisation issues. The introduction of a similar approach to the management of patient handover delays should bring about a significant improvement to current patient experience and organisational performance in areas where handover is a problem.

Clinical leadership will be vital in safeguarding the clinical care of patients during their handover. A senior clinical lead should oversee the development of protocols and clinical handover procedures, recognising these may be different in each setting/department. It is best practice for an appropriate senior clinician to see all patients at the point of arrival to accident and emergency, particularly those arriving by ambulance.

The clinical leaders should meet regularly with the identified executive lead to ensure joint working.

Recommendation 2: Acute Trusts and Ambulance Trusts should appoint a clinical lead to oversee the development and implementation of clinical handover protocols for acute departments.

Raising the profile

The role of the executive lead and clinical lead is key in ensuring timely patient handover, and working to address any issues with delays should feature as part of good integrated governance along with daily and weekly management reporting.
3. **Handover process**

Focusing on the provision of high quality patient care and experience is important to all staff. Timely handover of patients is also a central aspect of patient experience of emergency care and it is vital to ensure that all staff, irrespective of the organisation, work together to ensure a positive patient experience.

The handover process in the flow chart in Figure 1 illustrates the various stages in a typical patient handover journey. It highlights the need to transfer the clinical care of patients promptly on arrival in the department to the responsibility of the hospital rather than care remaining the responsibility of the ambulance crew until the receiving team are ready.

It is important that Acute Trusts and Ambulance Trusts agree protocols for handover to ensure that there is a single handover point after which ambulance crews can leave to ready the ambulance for further calls. Ambulance staff should not need to repeat information to more than one member of staff, and should not be delayed after the clinical handover due to waiting to move the patient from the ambulance trolley to an empty cubicle or bed.

Trusts should review their protocols and accident and emergency recording systems to support:

- Ambulance crews being able to record the time patients are brought into the ward or department;
- Automatic starting of the accident and emergency clock after 15 minutes if the handover has not yet occurred at this point.

**Recommendation 3:** Acute Trusts and Ambulance Trusts should review and agree protocols for handover, and how data is captured at each stage of the handover process with their ambulance trust for each location that patient handovers occur. Local variance between receiving departments in Trusts should be clearly identified and variances documented in local operational procedures.

**Guidance on process mapping is available from:**

Figure 1: Flowchart of handover process

1. Pre notification of arrival given by ambulance crew to acute department if clinically indicated.
2. As ambulance arrives, joint recording of hospital time.
3. Patient taken from the ambulance to the accident or emergency department or appropriate receiving ward or department.
4. If handover is delayed, accident and emergency clock starts 15 minutes after ‘At Hospital Time’ and delay reason is jointly recorded by accident and emergency and ambulance staff.
5. Crew is released and handover clock finish time is jointly recorded by ambulance crew and acute team.
6. Ambulance crew complete wrap up process, vehicle clean and return to service. Turnaround time recorded.
4. Data collection, reporting and analysis

This guide does not change the existing and established definitions that govern the collection and reporting of patient handover delays.

Guidance is available to the NHS via Unify 2 on the definitions and reporting of handover and the time of arrival at accident and emergency services.

Handover start time is defined as the time of arrival of the ambulance at the accident and emergency department, with the end time defined as the time of handover of the patient to the care of accident and emergency staff.

Fifteen minutes is considered to be a reasonable time in which to complete handover and this is the best practice time that is included in guidance.

It is also important to note the time of arrival at accident and emergency services for ambulance cases, in terms of measuring total time in accident and emergency. For ambulance cases, arrival time is when handover occurs or 15 minutes after the ambulance arrives at accident and emergency, whichever is earlier. In other words if the ambulance crew have been unable to hand over 15 minutes after arrival that patient is nevertheless deemed to have arrived and the total time clock for accident and emergency started.

It is important for the NHS to ensure that robust, transparent systems are in place for the collection, reporting and monitoring of data.

Acute Trusts and Ambulance Trusts may also wish to consider the merits of other ways to support data collection, for example the use of automated systems.

It may also be helpful for staff collecting and reporting the data to receive regular refresher training as another means of ensuring data collection definitions are consistently applied.

Recommendation 4: Acute Trusts, Ambulance Trusts, Primary Care Trusts and Strategic Health Authorities have a responsibility to ensure that handover data definitions are consistently applied.

Recommendation 5: Executive leads should communicate handover data definitions to all staff involved in the management of patient handovers.

The core focus of this guide is on the timeliness of patient handover rather than the ambulance turnaround time, which includes time to clean, restock and prepare as well as staff breaks. Turnaround time will remain crucial to the Ambulance Trusts for their operational management and should continue to be recorded and regularly analysed by the Ambulance Trust with a view to managing operational performance.
Joint reporting

To facilitate a whole systems approach it is necessary to define key measurement points in the handover process. Agreement of the start and end points is a critical requirement in joint ownership of ensuring timely patient handover and effectively addressing any delays. The guidance on reporting does outline start and end points but what is also important is joint agreement and sign off for the data collected, to ensure that both Ambulance Trusts and Acute Trusts have joint ownership of patient handovers and a partnership approach to tackling any issues.

Recommendation 6: Ambulance Trusts and Acute Trusts should develop local processes to agree data and sign off collections – including joint reporting.

Data Collection

Local data collection methods will vary but to assist the development of a local procedure a sample Patient Handover Delay Recording Sheet is provided in Appendix 2.

A recording sheet like this should be completed in each location where patient handovers take place with information recorded at the time of handover for every patient who has a handover lasting more than 15 minutes. The key cause of delay must be identified and clearly recorded, ideally as close as possible to the time of the delay. Information should be uploaded daily into electronic data collection sheets ready for analysis.

Collating this level of detail within the hospital will allow a more collective view of why patient handover delays occur and lead to a greater understanding of how processes can be improved and delays addressed.

Acute Trusts should reconcile data with Ambulance Trusts to check that they have the same understanding about the levels of delay. Reconciliation of data will form an important part of developing joint operational processes and bring about consistency in reporting. This will enable problems to be clearly identified and then targeted. Primary Care Trust commissioners are encouraged to play a monitoring role in this process.

Recommendation 7: There should be a regular reconciliation process between the Acute Trust and the Ambulance Trust on the number of patient handover delays that have occurred, and to ensure consistency with reported returns.

Analysis of reason for long patient handover

Recognising why delays in the handover of patients are occurring is vital to ensuring that improvements can be made.

Categorising the causes of delay in this way for all handovers lasting over 15 minutes allows for operational issues to be addressed more robustly and as a consequence compliant, patient centred delivery becomes the norm.
NHS South West has developed the following categorisation:

- No physical capacity in the department;
- No cubicle/isolation capacity;
- Multiple attendances in the department;
- Insufficient senior clinical staff to complete patient handover;
- Insufficient portering staff available;
- Lack of good and timely communication;
- Clinical condition of the patient requires continued support from ambulance crews;
- Other major incident.

**Recommendation 8:** Acute Trusts and Ambulance Trusts should develop a system to categorise patient handover delays to ensure full operational understanding of all delays lasting more than 15 minutes.

**Analysing trends**

As part of work to support delivery of the accident and emergency four-hour operational standard, the Department of Health and NHS Modernisation Agency developed a seven day analysis tool, for use by local organisations to understand key breach causes that may impact on accident and emergency performance. It is recommended that Trusts adopt a similar analysis technique and that a seven day breach analysis tool is implemented specifically for patient handover delays.

This analysis should be produced for executive attention on a weekly basis, with monthly reporting to NHS Trust Board on the details behind key cause of waits. Typical reports could include:

- Ambulance attendances by Time of Day;
- Ambulance attendances by Day of Week;
- Handovers lasting more than 15 minutes by Time of Day;
- Handovers lasting more than 15 minutes by Day of Week;
- Handovers lasting more than 15 minutes by breach category;
- Handovers lasting 15 minutes to 30 minutes;
- Handovers lasting 30 minutes to 45 minutes;
- Handovers lasting 45 minutes and over;
Reports may also go the ambulance trust board and additionally include:

- Ambulance turnaround times by Time of Day;
- Ambulance turnaround times by Day of Week;

An example of data collected during the pilot of this analysis is contained in Appendix 5.

Links with other organisations, through local emergency care networks should be used to develop joint solutions and share learning.

**Recommendation 9:** Ambulance Trusts and Acute Trusts should develop a seven day breach analysis tool for patient handovers lasting more than 15 minutes.
5. Responsive action

Issues that affect handover delays will be the same as many other daily operational issues often compounded by winter. These include: a lack of patient flow; discharge management; lack of adherence to agreed processes; bed management; training and communication.

Trusts that have incorporated the daily management of patient handovers into corporate-wide site management responsibility, have found that as improvements are made to key operational flow issues, delays in the handover of patients are naturally reduced.

Keeping key acute medical and surgical wards flowing can lead to a more efficient movement of patients requiring admission via accident and emergency departments and onto hospital wards, and subsequently fewer patient handover delays. It is the responsibility of the Acute Trust to ensure it has sufficient capacity to meet demand and that capacity is reviewed iteratively, including throughout the winter months as emergency admission acuity may rise and reviewing admission flex between specialties. In addition, particularly during winter periods, the risk of outbreaks of infection can be heightened, and vigilance is required to monitor rises to bed and ward closures.

Recommendation 10: Executive leads should link patient handover delay improvement actions into other trust-wide operational management plans.

Each organisation needs to identify the triggers that indicate the likelihood of potential patient handover delays ahead of the need for escalation. These are likely to include:

- Low discharges at weekends;
- High volume of urgent general practitioner referrals;
- Slow flow from accident and emergency through to main hospital wards or admission units;
- Infection present in admitting wards restricting bed capacity;
- High volume of accident and emergency department attendances;

Any one of the above or similar may not necessarily trigger full escalation but could act as an early warning which may be helpful to proactive management across communities and may help to avoid full escalation and unnecessary patient delays. All Ambulance Trusts have well developed REAPs (Resources Escalation Action Plans) with graduating levels of resource commitments attached (bronze silver and gold) that can complement acute trust plans. Details of REAPs should be shared locally as part of the standard operating arrangements.

Recommendation 11: Acute Trusts should develop an algorithm for detecting early signs of potential escalation status to allow time for local health community response to be prepared ahead of escalation.
6. Service improvement and best practice

The analysis of patient handover delays will identify a range of causes creating delays. Very few instances will be unique as a number of delays in patient handovers may be affected by a lack of appropriate capacity across the whole hospital system.

Setting a standard

Managing timely patient handover from ambulance services to acute services should be a matter of priority regardless of the setting, and an expectation that this handover takes place within 15 minutes of the ambulance arrival. Therefore, patient handover outside accident and emergency, at an assessment or observation unit for example, should also conform to the 15 minute handover best practice. The steps set out previously for categorising and analysing issues with handover breaches will also therefore apply in all relevant settings.

Managing Patient Flow is a challenge for acute trusts managing emergency patients. For most organisations and their site management teams, balancing elective and emergency admissions, single gender accommodation, patients with isolation needs and critical care facilities in a way that gets every patient the right bed at the right time, is the desired daily outcome for operational management.

In order to achieve this, and also ensuring timely patient handover, you will wish to review yourself against existing best practice on patient flow; early discharge; multi-disciplinary discharge; and management of length of stay for example.

Checklists and toolkits linked to patient flow, ensuring timely discharge and bed management are available via the Department of Health website:


The NHS Modernisation Agency 10 High Impact Changes document, which covers a number of these areas can be found on:


Dealing with predictable patterns of increased demand

The pattern of patient flow into admission wards follows a pattern linked to Practice in Primary Care and General Practitioner home and Care Home visits which often means there are peaks in patient attendance early in mid to late afternoon. Understanding this pattern through the arrival time analysis and knowledge of local general practice routines is essential to minimising patient handover delays. Preparing to meet that demand is an essential part of daily operational planning and by ensuring discharges from the wards early in the day, means patients can be moved from admission units promptly at midday leaving space to accommodate the afternoon rush. This cannot be achieved by the emergency teams alone, and requires a commitment from hospital wards and support departments to ensure patients are moved through the system efficiently, freeing up the front door capacity.
Supporting good patient flow

A number of operational issues, including patient flow, were considered as part of work to support delivery of the accident and emergency four hour operational standard. As part of this, ensuring there is a coordinator responsible for effective patient flow can be an integral part of the management of ambulance arrivals and the improved handover of patients to the clinical team. Patient Flow Co-ordinators are an example of this and can assist with paperwork and identifying suitable available bed capacity within the accident and emergency department and can liaise with the Site Management Team and Bed Manager to expedite patient admission onto hospital wards.

Staffing levels

There can often be predictable patterns of activity, resulting in the need to clerk patients, prepare treatment plans, organise tests and transfer patients, particularly admission units or other acute wards. This may clash with protected meal times and visiting arrangements. It is vital that the staffing levels are balanced in accordance with the needs of patients and the administration that is a vital part of clinical governance.

Further information on staffing levels and developing the skill mix and other workforce matters can be found in Right Staff in the Right Place guidance on:  


Information Management Systems and other enabling technologies

Across the country there has been significant investment in the implementation of Information Management Systems that assist in the planning and diversion of resources in times of pressure.

The South Western Ambulance Service NHS Ambulance Trust has, in partnership with the local Acute Trust, installed ‘arrivals screens’ in hospital accident and emergency departments and medical assessment units. The arrival screens are an extension of the Ambulance Trusts Computer Assisted Dispatch (CAD) system and display information concerning in-bound ambulances and their expected time of arrival. The arrivals screens also have the innovative functionality for clinicians to electronically timestamp each patient episode with the agreed handover time for reporting and audit purposes.

The Great Western Ambulance Service NHS Trust has introduced a Capacity Management System. This enables real-time monitoring of the pressure experienced by acute hospitals, both in terms of their overall bed pressure, and by the individual access points related to that hospital.

The Capacity Management System takes a percentage of the areas served and indicates to the ambulance crew the available capacity at the various local hospitals. The crew can override the suggestion (based on clinical need) but will be required to enter the reason on the system. Whilst the number of patients involved is relatively small, several important benefits are achieved through this approach:

- Pressure is shared between hospitals across the region, and the country as a whole – reducing peaks and troughs in activity;
• Hospital diverts no longer occur, preventing a patient being admitted to a hospital far from home, thereby reducing the issue of repatriation post treatment;

• Waiting times are reduced resulting in better patient care and better performance for hospitals.
7. Escalation arrangements

Robust operational management of ambulance handovers is essential. Where operational pressure, especially during winter, is likely to impact on performance, early notification to the Ambulance Service Trust is essential. Every organisation should ensure that their executive lead and operational managers and clinical leaders have a key role in managing a successful escalation policy.

Recommendation 12: Local escalation plans should be jointly agreed and aligned with community wide plans. Escalation should be implemented as applicable and in accordance with the agreed plan.

The table below in Figure 2 illustrates a suggested local escalation plan with the following features:

- Key escalation times;
- Clear accountability;
- Clear reporting.

Local communities should agree joint escalation protocols that follow the guidelines broadly stated in the table below.
Figure 2: Suggested local escalation plan

<table>
<thead>
<tr>
<th>Time period</th>
<th>Acute Response Role</th>
<th>Ambulance Response Role</th>
<th>Reporting arrangements</th>
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<tbody>
<tr>
<td><strong>Handover within 15 minutes</strong></td>
<td>On arrival ambulance crews to be greeted and patient registered. Destination for patient identified. Transfer of clinical care to senior nurse/clinician. Paperwork transfer between organisations.</td>
<td>Identify any special requirements. Handover Patient details to clinical team. Move patient to bay as indicated. Collaborate with acute care team on completion of handover process.</td>
<td>Standard operational reports should report no unnecessary patient delays at accident and emergency or any other receiving area in the hospital.</td>
</tr>
<tr>
<td><strong>Escalation to NHS Trust lead for Emergency Care</strong></td>
<td>Breach report complete for each incident by team on duty capturing all elements of delays. Notification to site management/bed management team giving verbal update on status of receiving unit and likelihood of further breaches reoccurring.</td>
<td>Liaise with trust lead for emergency care. Advise ambulance control of delay and reason. Complete breach details on handover documentation and agree handover time and delay.</td>
<td>Record length of handover duration and ensure that the number per day and week are included in any required local or national reporting. Primary Care Trust Commissioners notified via weekly management process patient delays.</td>
</tr>
<tr>
<td><strong>Escalation to Executive Lead</strong></td>
<td>Acute Trust Executive Lead will contact ambulance executive lead and agree next steps. Seek to provide additional operational capacity to alleviate pressure.</td>
<td>Liaison with Trust executive lead and agree next steps to manage operational pressure executive lead.</td>
<td>Over 45 minutes individual case by case local exception reports to Primary Care Trust commissioners. Any exceptional delays (as locally determined) to be reported personally by NHS Trust Chief Executive to Strategic Health Authority Chief Executive within next working day.</td>
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8. Performance management

Focusing on improving handover delays is a feature of good performance management.

Local arrangements should be put in place to ensure that Primary Care Trusts can hold their service providers to account for timely handover of care. The exact arrangements will be determined by the Primary Care Trust.

Strategic Health Authorities have a responsibility to ensure that primary care trusts have arrangements in place that aim to ensure timely handover of care.

Where there are ongoing patient handover delays and there is little or no evidence of improvement the commissioning Primary Care Trust and Strategic Health Authority should consider if intervention is required to deliver improved performances. This approach should be in time with the local performance management framework.

Recommendation 13: Commissioners should understand the detailed issues behind the delays and intervene if the key causes continually re-occur.

Recommendation 14: The performance management arrangements for handover delays should be specified by Primary Care Trusts and Strategic Health Authorities.
9. Case studies

Case Study 1: Achieving timely handover on the Medical and Surgical Assessment Units at Plymouth Hospitals NHS Trust.

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<th>Title of the Project</th>
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<tr>
<td>Achieving the 15 Minute best practice on the Medical and Surgical Assessment Units at Plymouth Hospitals NHS Trust.</td>
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<th>The Issues</th>
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<tr>
<td>The Medical and Surgical Assessment Units in Derriford Hospital are busy wards with a high turnover of patients. With this in mind Plymouth Hospitals NHS Trust needed to find a way to achieve the 15 minute best practice time for completion of patient handovers.</td>
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<tr>
<td>There was insufficient ‘pull’ in the admissions process to release ambulance crews back to the road in a timely manner, there was a lack of ownership at ward level, and most importantly, the patient experience was not the primary focus. There was also no clear escalation and communication process of delays.</td>
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<th>The Solution</th>
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<tr>
<td>With the support of senior management within the Trust, the Emergency Services Directorate introduced a simple spreadsheet on which to collect data and information on patient handover delays. This was to supplement the data provided by the ambulance service, and also to raise the profile of the need to remove patient handover delays.</td>
</tr>
<tr>
<td>Breach categories were discussed and chosen by both managers and clinical staff to best reflect the operational issues affecting the ambulance handovers. This standardisation of the categories allows for quick and simple analysis of the cause of the delays and enables prioritisation of work that will have the greatest positive effect.</td>
</tr>
<tr>
<td>It was decided that the most effective way to compile the data in the Assessment unit environment was by paper, on a specifically designed sheet, that reflected the order in which the data would be naturally collected. The design of this sheet was then duplicated in the spreadsheet to allow for quick and easy inputting of the figures and breach categories by a member of admin staff from the operations team.</td>
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<th>The Implementation</th>
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<td>The profile of the issue needed to be raised and communicated to all levels of staff, with particular emphasis on patient experience, and expediting the release of ambulance crews. The ward managers and the matron for Emergency Services have been vital in ‘spreading the word’ and performance managing the collection of the data.</td>
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The Benefits

The introduction of the spreadsheet has had multiple benefits. It has greatly increased the feeling of ‘ownership’ of the issue amongst front-line staff on the MAU and SAU. By affording staff the opportunity to consider the reasons behind the push to remove handover delays, and to be key in allocating the breach categories, this has allowed the staff to begin to be proactive in shaping their own particular service to achieve optimal results.

The changes can be simple but effective, such as ensuring that there is always a member of sufficiently qualified staff available to receive ambulance crews at times that traditionally removed staff from the ‘shop floor’, such as at nurse handover or large ward rounds. Changes like this can vastly improve the patient’s experience of admission into hospital and also release ambulance crews back to the road much faster.

In particular on the MAU, there was a reduction in ‘time lost due to Handovers greater than 15 minutes’ of nearly 13 hours between June, and July, when the collection of the data at ward level began.

There has been engagement at all levels and support from senior leads within the trust especially with the implementation and design process, and also with commitment of time and resources. The process of collecting data has also been actively used as a tool to highlight increasing patient handover delays earlier in the process, and therefore escalating to senior management at an appropriate time to enable action to be taken.

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Case Study 2: Swindon and Marlborough NHS Trust
Accident and Emergency Department – The Great Western Hospital

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<th>Title of the Project</th>
<th>Patient Handover Performance Improvement</th>
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**Background:**
During the 07/08 winter we identified performance on patient handovers as being an issue we had not formally addressed within the trust. Staff were not aware that specific handover time periods were significant and we decided to look into ways of improving our performance as part of our improved patient experience around the accident and emergency four hour standard using a lean approach.

**Actions taken:**

**Understanding the Issue**
- As a first step the accident and emergency senior nurse widely publicised within the department the fact that 15 minutes and then 45 minutes were to be the local targets for tackling patient handover time performance. Clarifying these handovers relate to all emergency receiving areas so include the assessment units;
- Ensured people realised the relevance in terms of patient experience and knock on effect for patients outcomes and other related quality targets. (Accident and emergency four hours, Call to needle thrombolysis, Ambulance response times).

**Accurate Monitoring and Documentation**
- We started to record arrival times for queuing patients on a white board next to the main patient white board so staff were aware of the 15 minute handover breach times they were working to;
- Great Western Ambulance Service NHS Trust introduced their escalation system and this was implemented across our Trust;
- We realised that we had some serious discrepancies on start times when our breach data was significantly different to the Great Western Ambulance Service NHS Trust reports and set up a project group with Great Western Ambulance Service NHS Trust to look at improving the shared agreement on start times;
- Identified two senior accident and emergency nurses to lead on ambulance handovers and drive the necessary changes;
- Reminding all staff of when the ‘four hour clock’ started for queuing ambulance patients and ensuring this was recorded accurately by electronically booking the patients in with their location noted as not yet off loaded. This also gave a realistic picture of the pressure in terms of numbers waiting for treatment in accident and emergency;
- Whenever possible senior clinicians triage the patients waiting in ambulances and if clinically safe they are moved to chairs in the waiting room.

**Reporting and Progress**
- Using our own locally collated handover information to validate and agree Great Western Ambulance Service NHS Trust performance data;
- Ensuring that we copy Great Western Ambulance Service NHS Trust performance information to the operational directorate leads for local sharing.
<table>
<thead>
<tr>
<th>Key benefits for the patients / staff / services:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reducing the amount of time a patient spends waiting in an ambulance is about removing valueless time from the patient journey. The time spent in the ambulance can be stressful for patients who are often anxious to begin treatment in accident and emergency. Patients calling 999 should experience a faster response if crews are not delayed in handovers to accident and emergency. The hard work that goes into delivering the accident and emergency four hours performance is devalued if patients are waiting for a significant proportion of that time in an ambulance. Staff have better satisfaction if they are not queue managing and are able to treat their patients in a clinically appropriate environment as quickly as possible. Our staff are very encouraged to see that we have lower levels of handover delays than before and that their hard work shows.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Key Learning:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ensuring people understand is key to engagement and improvement:</td>
</tr>
<tr>
<td>• What is being measured;</td>
</tr>
<tr>
<td>• Why it is being measured;</td>
</tr>
<tr>
<td>• How it is being measured;</td>
</tr>
<tr>
<td>• Their role in improving handover times;</td>
</tr>
<tr>
<td>• Feedback on how we are performing.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Contact Details:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sue Milloy</td>
</tr>
<tr>
<td>Senior Nurse, Unscheduled Care</td>
</tr>
<tr>
<td><a href="mailto:Susan.milloy@smnhst.nhs.uk">Susan.milloy@smnhst.nhs.uk</a></td>
</tr>
</tbody>
</table>
## Case Study 3: Single front Door South Devon NHS Foundation Trust

<table>
<thead>
<tr>
<th>Title of the Project</th>
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<tr>
<td>Patient Handovers in Torbay</td>
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</table>

### Background:

Working relationships between staff from the Trust and South Western Ambulance NHS Trust (SWAST) are very good. Devon Doctors-on-Call (DDocs) staff and accident and emergency staff are co-located.

Patient handover times over 30 minutes between South Western Ambulance Service NHS Trust and accident and emergency staff have always been amongst the lowest in the NHS South West region.

Now that accident and emergency and DDocs are co-located the intention is to complete all patient handovers within the best practice time of 15 minutes.

### Actions taken:

It is believed that the low numbers of delayed patient handovers is due to:

- Excellent accident and emergency performance;
- Excellent South Western Ambulance Service NHS Trust performance;
- One single point of access to the hospital through accident and emergency;
- Strong working relationships;
- Patient focused care.

### Key benefits for the patients / staff/ services:

- Reduced time patients spend waiting in an ambulance;
- Reduced frustration between service providers that can arise if patients cannot be handed over quickly to an appropriate clinician;
- Streamlined process for patients from home to ambulance, ambulance to accident and emergency and then accident and emergency into our Emergency Assessment Unit or directly to a ward, depending on the presenting condition;
- Ambulances ready for redeployment more quickly thereby supporting delivery of response times.

### Key Learning:

A single point of access to an acute hospital setting makes for better patient journeys. It demonstrates queuing theory the less queues services have to manage, the faster the patient journey.

Strong working relationships between services are vital in order to acknowledge and address any problems with patient handovers.

### Contact Details:

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Sharon.matson@nhs.net

Cathy Gardner  
Operational manager  
Emergency Care  
South Devon Healthcare NHS Foundation Trust  
Cathy.gardner@nhs.net
## Appendix 1: List of recommendations

<table>
<thead>
<tr>
<th>Number</th>
<th>Recommendation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Acute Trusts, Ambulance Trusts and commissioners should identify an executive lead with responsibility for ensuring timely patient handover delays. Executive leads should commit to working together with other organisations in the local community.</td>
</tr>
<tr>
<td>2</td>
<td>Acute Trusts and Ambulance Trusts should appoint a clinical lead to oversee the development and implementation of clinical handover protocols for acute departments.</td>
</tr>
<tr>
<td>3</td>
<td>Acute Trusts and Ambulance Trusts should review and agree protocols for handover, and how data is captured at each stage of the handover process with their ambulance trust for each location that patient handovers occur. Local variance between receiving departments in Trusts should be clearly identified and variances documented in local operational procedures.</td>
</tr>
<tr>
<td>4</td>
<td>Acute Trusts, Ambulance Trusts, Primary Care Trusts and Strategic Health Authorities have a responsibility to ensure that handover data definitions are consistently applied.</td>
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<tr>
<td>5</td>
<td>Executive leads should communicate handover data definitions to all staff involved in the management of patient handovers.</td>
</tr>
<tr>
<td>6</td>
<td>Ambulance Trusts and Acute Trusts should develop local processes to agree data and sign off collections – including joint reporting.</td>
</tr>
<tr>
<td>7</td>
<td>There should be a regular reconciliation process between the Acute Trust and the Ambulance Trust on the number of patient handover delays that have occurred, and to ensure consistency with reported returns.</td>
</tr>
<tr>
<td>8</td>
<td>Acute Trusts and Ambulance Trusts should develop a system to categorise patient handover delays to ensure full operational understanding of all delays lasting more than 15 minutes.</td>
</tr>
<tr>
<td>9</td>
<td>Ambulance Trusts and Acute Trusts should develop a seven day breach analysis tool for patient handovers lasting more than 15 minutes.</td>
</tr>
<tr>
<td>10</td>
<td>Executive leads should link patient handover delay improvement actions into other trust-wide operational management plans.</td>
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<tr>
<td>11</td>
<td>Acute Trusts should develop an algorithm for detecting early signs of potential escalation status to allow time for local health community response to be prepared ahead of escalation.</td>
</tr>
<tr>
<td>12</td>
<td>Local escalation plans should be jointly agreed and aligned with community wide plans. Escalation should be implemented as applicable and in accordance with the agreed plan.</td>
</tr>
<tr>
<td>13</td>
<td>Commissioners should understand the detailed issues behind the delays and intervene if the key causes continually re-occur.</td>
</tr>
<tr>
<td>14</td>
<td>The performance management arrangements for handover delays should be specified by primary care trusts and strategic health authorities.</td>
</tr>
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</table>
### Appendix 2: Patient handover delay recording sheet

**Completion Instructions**
- Complete a single line entry for each Patient Handover over 15 minutes
- Select primary cause for delay
- Note other contributory factors at the time of delay
- Copy of this form to be handed daily to the Emergency Care Lead
- Breaches to be reconciled against ambulance data on a weekly basis

<table>
<thead>
<tr>
<th>Date</th>
<th>Crew / Emergency Unit number</th>
<th>Arrival Time *Must equal 'At Request Time' on Patient Report form</th>
<th>Patient ID</th>
<th>Patient Report Form Number</th>
<th>Presenting Complaint</th>
<th>Clinical Handover Completed Time *Must equal ambulance handover time</th>
<th>Number of minutes delayed beyond 15 minutes</th>
<th>Reason for Delay See breach categories appendix 3</th>
<th>Notes</th>
<th>Hospital Co-ordinator Signature</th>
</tr>
</thead>
<tbody>
<tr>
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00:00
### Appendix 3: Suggested patient handover delay categorisation

<table>
<thead>
<tr>
<th>Breach Code</th>
<th>Breach Reason</th>
<th>Recommended Action</th>
</tr>
</thead>
</table>
| A1          | No physical capacity department | • Where clinically appropriate patients awaiting admission into specialities should be transferred within two hours, ensuring any available bed capacity is in place for emergency patients  
• Delays in patient flow from Medical Assessment Unit into medical wards need to be addressed  
• Discharges from Medical Assessment Units need to be expedited |
| A2          | No cubicle/isolation capacity available | • Infection control teams to monitor the availability of isolation bays/cubicle to ensure that capacity meets demand. This will need to flex to meet seasonal requirements |
| A3          | Multiple attendances in the department | • Clinical prioritisation and escalation to other hospital wide clinical teams. Evaluation of alternation support solutions in line with major incident plans |
| A4          | Insufficient senior clinical staff to complete patient handover | • Examine staffing levels, sickness cover arrangements for peak attendance periods |
| A5          | Insufficient portering staff available | • Delays in transfer of patients from emergency wards into the hospital can seriously impact overall flow. Examine shift patterns linked to attendance  
• Focus on early discharge, promptly executed to improve flow through beds across the hospital  
• Prioritise portering duties during busy periods |
| A6          | Communication | • Improve training on the elimination of handover delays  
• Work collaboratively with ambulance crews to deliver compliance  
• Develop joint working groups/away days to address communication issues between organisations |
| A7          | Clinical | • Patient undergoing treatment by combined Acute/paramedic team  
• Clinical handover still in progress |
| A8          | Other (please state) | • Special Cause, major incident etc |
Appendix 4: Analysis causes of handover delays

The charts below are examples from a Trust that undertook analysis of patient handover delays.

**Principal Cause of Handover Breaches**

<table>
<thead>
<tr>
<th>Principle cause of Ambulance Handover Breaches</th>
<th>Emergency Department</th>
<th>Medical Assessment Centre</th>
<th>Surgical Assessment Centre</th>
<th>Other Clinics</th>
</tr>
</thead>
<tbody>
<tr>
<td>A1 No Physical space in Department</td>
<td>9</td>
<td>11</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>A2 No Cubicle Isolation Capacity</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A3 Multiple Attendances in Department</td>
<td>5</td>
<td>4</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>A4 Insufficient Senior Staffing for Clinical Handover</td>
<td>1</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>A5 Insufficient Porters</td>
<td>2</td>
<td>3</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>A6 Communication</td>
<td></td>
<td>2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>A7 Clinical</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>A8 Other: Special Cause (please state)</td>
<td></td>
<td>1</td>
<td></td>
<td>1</td>
</tr>
</tbody>
</table>

**Total number of hours lost for reported principal causes of delay, by hour of the day**

- Multiple Arrivals
- Unknown n/ Incomplete
- No Capacity
Time lost by hour of the day for reporting weeks commencing 9 and 16 September 2008, and total amount of time lost by hour

Number of Handover Delays by day of week and time lost each day