
Handover of Ambulance Patients in Emergency Departments

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Purpose

This document describes a standard national protocol for the integrated handover of care of patients transported by ambulance to the Emergency Department (ED). The protocol is intended for use by Pre-hospital Emergency Care Practitioners and ED nurses and doctors who are involved in the reception and handover of patients, including but not limited to pre-alert notification, preparation for patient arrival and effective communication. It also provides direction to administrative and reception staff who complete ED patient registration records and record ED process data. It provides guidance to ED Clinical Operational Groups as to how ambulance patient handover procedures should be structured, monitored and quality assured. It recommends that a structured feedback mechanism between the ED and Ambulance Service Provider be created. These processes allow for the generation of both the quantitative and qualitative data necessary for governance. It applies to all patients who are brought to the ED by ambulance.

Introduction

A structured, yet flexible handover process greatly enhances patient care. It is a key component of a quality process as the information gathered during this process will inform and benefit the patients' care pathway through the ED. The handover process is underpinned by the general principles that all members of the multi-disciplinary team contribute positively to patient care and their contribution is both important and valued. Professionalism, courtesy and mutual respect are core components of this principle.

Objectives

- The primary objective is to ensure that patient safety and quality of care is optimised during the transition of care between Pre-Hospital and Emergency Department (ED) teams.
- The protocol will support timely and efficient patient handover, optimising ED compliance with the EMP Ambulance Patient Handover Time key performance indicator (KPI).
- It provides a standardised and reliable process for quantitative data capture to monitor Ambulance Patient Handover Time KPI.
- A structured feedback process provides qualitative data capture on process and performance.

Key Definitions

Clinical Handover

“Clinical Handover refers to the transfer of information from one health care provider to another when:

- A patient has a change of location or venue of care, and/or
- When the care of / responsibility for that patient shifts from one provider to another”¹

Ambulance Arrival Time

This is the time that the pre-hospital practitioner notifies Ambulance control and/or records on the Patient Care Report (PCR) form that they have arrived in the parking area of the Emergency Department.

Ambulance Patient Handover Time (APHT)

This is the time taken from Ambulance Arrival to Ambulance Handover. This time is included in the NECS minimum dataset.

The definition of handover time is the time when both the clinical information has been given from the pre-hospital practitioner to the ED staff AND the patient has been moved off the ambulance wheelchair or stretcher to a facility or area within the ED, that is, responsibility for patient care has been transferred from the Ambulance Service Provider to the Emergency Department.

The Ambulance handover time is agreed on and entered onto the Patient Care Report.

Handover time is when the clinical handover is complete and the patient has moved off the Ambulance chair/stretcher to a facility or area within the ED.

Ambulance arrival time is recorded on the PCR in the "At Destination" field.

This is the time they inform ambulance control that they have arrived at the hospital.

Pre-hospital Emergency Care Council												PATIENT CARE REPORT																																			
INCIDENT INFORMATION																																															
Date Of Call						Time Of Call						Passed																																			
DD	MM	YYYY	HH	MM		HH	MM		HH	MM																																					
Dispatch Classification Reference																																															
Priority Response												Inter Facility Patient Transfer																																			
EMSO	DELTA	OMEGA	BRAVO	ALPHA	OMEGA	E	D	C	B	A																																					
Mobile				At Scene				At Patient				Depart Scene				At Destination																															
HH	MM			HH	MM			HH	MM			HH	MM			HH	MM																														
At Handover				Destination				Clear																																							
HH	MM											HH	MM																																		
NAME OF FACILITY																																															
CC CODE												INCIDENT NUMBER												VEHICLE CALL SIGN												PATIENT NO. ENTER A, B OR C											
Practitioner Attend						Practitioner Support						Other						Station Code																													
PIN						PIN						PIN						CODE																													

Scope

This protocol covers the communication aspects of the patient pathway from the point of pre-hospital alert of patient arrival, through the handover process from Pre-Hospital to ED team and ends when with the completion of Ambulance Patient Handover Time fields in the ED patient's clinical record or ED Information System (EDIS). It also encompasses structured communication and feedback processes between the Ambulance Service Providers and the Emergency Departments.

Protocol structure:

The protocol covers preparation, the environment, communication, patient care, data capture and analysis, governance, education and training.

1. Preparation:

- 1.1. A central communications base should be available within the ED. There should be at least 2 different types of communication methods with Ambulance Control available; be it a combination of a dedicated phone line, a two-way radio or an Ambulance Arrival computer screen.
- 1.2. The CNM on duty should clarify which nurse(s) is/are responsible for the reception of patients who arrive by ambulance for patients and ensure that all staff are aware of the need for timely, high quality patient handover. The ambulance reception nurse should be easily identifiable to pre-hospital practitioners.
- 1.3. Ambulance Service Providers will identify patients requiring urgent assessment and treatment and pre-alert the receiving ED.
- 1.4. The staff member receiving "pre-alert" information from the Ambulance Service must inform both the nurse in charge and the most senior ED doctor in the department.
- 1.5. When a patient requires resuscitation or urgent assessment, the receiving ED should be alerted by the Pre-hospital team as soon as possible. Further clinical status and timing updates should be provided en route.
- 1.6. The team lead responsible for the reception of patients requiring resuscitation should be pre-identified and then identifiable to pre-hospital practitioners and the resuscitation team.
- 1.7. The ED Resus Team Lead should identify themselves to the Pre-hospital team and invite them to provide a clinical handover.
- 1.8. Pre-hospital practitioners should take time to prepare their handover en-route to hospital whenever possible

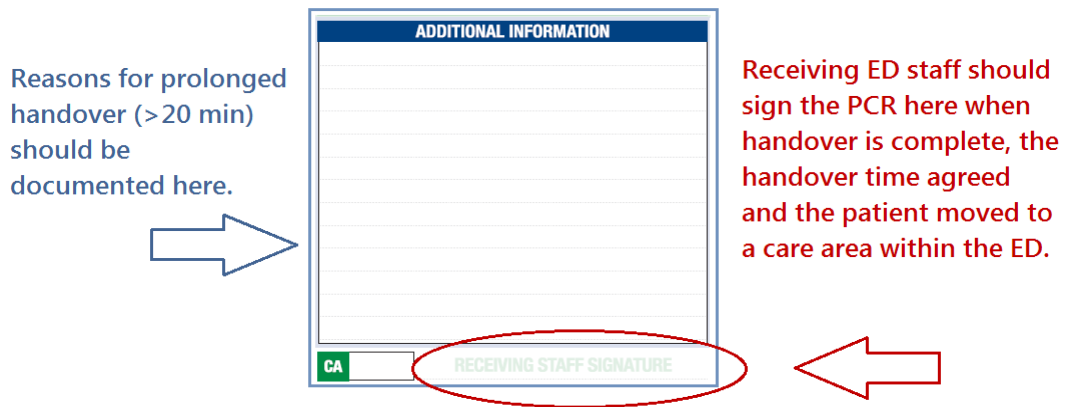
2. Environment

- 2.1. Suitable clinical areas for patient handover should be identified such that patient confidentiality, privacy and comfort are assured during the handover period. Handover may occur in a clinical cubicle or in a designated handover area.
- 2.2. The handover environment should support optimal infection protection and prevention practices.
- 2.3. Facilities should be in place for bedside registration of non-ambulant patients. It is the ED registration staff's responsibility to ensure that the patient is registered.

3. Communication

Two communication scenarios are recognised – resuscitation and routine handover.

- 3.1. The receiving ED will receive an ASHICE (Appendix A) message from the Ambulance Service Provider for patients meeting national agreed “pre-alert” criteria.
- 3.2. Resuscitation/unstable patient handover:
 - 3.2.1. The pre-hospital team lead should identify themselves and their clinical level to the Resuscitation team lead.
 - 3.2.2. The pre-hospital team lead gives a brief clinical handover outlining the patient’s clinical status using the IMIST mnemonic (Appendix B).
 - 3.2.3. The Resuscitation team commence their assessment of the patient.
 - 3.2.4. The Resuscitation team leader receives a more detailed handover from the pre-hospital crew at an appropriate time using the full IMIST-AMBO mnemonic (Appendix B) and both parties agree when handover is complete.
 - 3.2.5. A Resuscitation team member will sign the pre-hospital PCR, ensuring that ambulance arrival time and handover times have been recorded. Reasons for prolonged handover (>20 minutes) should be recorded in the “Additional Information” box on the PCR.
- 3.3. Routine handover:
 - 3.3.1. Use a standard mnemonic IMIST-AMBO (Appendix B) to ensure all essential information is communicated and that Pre-hospital practitioners can use the same approach in all EDs.
 - 3.3.2. The IMIST-AMBO approach allows a natural break in the handover. Encourage questions at the end of “IMIST” and again after the “AMBO” information has been given.
- 3.4. The principles of good communication apply to both resuscitation and routine handover. They include:
 - 3.4.1. Be concise
 - 3.4.2. Communicate when others can actively listen
 - 3.4.3. Alternate your tone of voice, use pauses and speak at a moderate pace
 - 3.4.4. Ensure the handover is interruption free
 - 3.4.5. Allow at least 30-40 second “face to face” period between the Pre-hospital and ED personnel. Staff can concentrate fully on the information being given.
 - 3.4.6. Defer questions until the end of handover, so as not to distract the person giving handover
 - 3.4.7. Accompanying relatives/friends may provide additional information
 - 3.4.8. Verbally acknowledge that the handover is finished. Agree on a handover time, complete and sign the handover time field and the PCR.



4. Patient care during handover

- 4.1. The handover procedure should optimise patient safety and experience of care and reflect the principles of the health service charter *Your Service Your Say*.⁶ It should enable all patients to communicate as effectively as they can with all care providers.
- 4.2. Handover should be completed within 20 minutes of ambulance arrival at ED. This is a Key Performance Indicator. The target is for 95% of all patients to be handed over within 20 minutes of ambulance arrival at the ED.⁷
- 4.3. The handover process includes clinical handover and moving a patient from an ambulance chair or stretcher into an appropriate care area within the ED, removing the need for an ambulance chair or stretcher.
- 4.4. Patient handover may occur while the patient is still on the ambulance stretcher but patients must be transferred immediately to an ED trolley if they need one.
- 4.5. Infection prevention and control measures must be observed during handover.
- 4.6. Recording of triage should occur immediately after or during handover for ambulance borne patients and should include only basic Manchester Triage System activity, unless immediate intervention is required.
- 4.7. Triage documentation may be completed retrospectively for resuscitation patients.
- 4.8. Pre-hospital physiological data should be reviewed at patient handover. National guidance on the documentation of pre-hospital physiological data in the ED patient care record will follow.

5. Data capture and analysis

- 5.1. The patient's name, DOB and the date, time and location of the incident should be checked on the PCR by Pre-hospital Personnel. All accompanying clinical data, such as rhythm strips and 12-lead ECG's should include the patient's name and the date and time. These are essential items in the patient's ED care record.
- 5.2. The receiving nurse and the pre-hospital lead should agree the handover time and the pre-hospital lead records it in the 'At Handover' time field on the patient's Pre-hospital Patient Care Report, which the receiving nurse then signs. Reasons for prolonged handover should be documented. Delays are due to either a) on-going clinical care or b) delay in either verbal or physical handover.
- 5.3. The pre-hospital practitioner may complete the PCR retrospectively after handover. It is recommended that a suitable area is available in the ED for the completion of pre-hospital documentation.
- 5.4. A copy of the PCR is included in the patient's ED care record and a stored within this record. Administration staff should ensure that the following data is recorded in the Emergency Department Information System:
 - 5.4.1. 'Ambulance Arrival' time. This is the "At destination" field on the Patient Care Report.
 - 5.4.2. Ambulance Patient Handover Time
 - 5.4.3. Triage time (this maybe the same time as the handover time if triage has occurred contiguously with (or immediately after) handover
 - 5.4.4. All accompanying clinical data (eg Rhythm strip and ECG's)

The image shows a 'Pre-Hospital Patient Care Report' form. The top section is 'INCIDENT INFORMATION'. It includes fields for 'Date Of Call' (DD MM YYYY), 'Time Of Call' (HH MM), and 'Passed' (HH MM). Below this are 'Dispatch Classification Reference' and 'Priority Response' (with options like ECHO, DELTA, CHARLIE, BRAVO, ALPHA, OMEGA). There is also an 'Inter Facility Patient Transfer' section with 'Mobile' and 'At Scene' (labeled 'A') fields. The 'At Destination' field (labeled 'B') is circled in red. Below these are 'At Handover' (circled in red) and 'Destination' fields. The bottom section includes 'CC CODE', 'INCIDENT NUMBER', 'VEHICLE CALL SIGN', 'PRACTITIONER ATTEND', 'PRACTITIONER SUPPORT', 'OTHER', and 'STATION CODE'.

The Ambulance Patient Handover Time is the time difference between the "At Handover" time (A) and the "At Destination" time (B).

Times should be recorded on the EDIS system using the 24 hour clock

6. Governance

The KPI target is that 95% of all patients be handed over within 20 minutes of ambulance arrival at the ED⁷.

- 6.1. This protocol should be reviewed and updated by the National EMP and the Pre-hospital Emergency Care Council.

- 6.2. The protocol may be adapted for local use within Emergency Care Networks (ECNs) and EDs, but the core elements of the protocol and the standardised reporting of KPIs must be included.
- 6.3. National pre-alert criteria will be used by Ambulance Service Providers to notify the emergency department of potentially unstable patients. It is the responsibility of senior medical and nursing staff to decide on the action required after receiving pre-alert information.
- 6.4. Responsibility for patient care transfers from the Ambulance Service Provider to the Emergency Department once the verbal handover has occurred. Pre-hospital practitioners can provide further patient care, in accordance with their scope of practice, in consultation with senior Emergency Department staff.
- 6.5. ED Clinical Operational Groups (COGs) should monitor the quality of Ambulance Patient Handover process in conjunction with the ambulance service providers using both quantitative and qualitative data.
- 6.6. Key stakeholders, such as Ambulance Service Providers and patient advocacy groups, can contribute to and inform these processes.
- 6.7. General patient care principles from the EMP should be applied to all patients requesting ambulance transport.

7. Education and Training

- 7.1. Interdisciplinary education and training programmes should be developed to support high quality, integrated and seamless patient handover. Handover skills should be a core part of ED/EMS/Dr induction training.
- 7.2. ED COGs must ensure that all relevant ED staff are trained in handover procedures. The Ambulance Service Provider is responsible for Pre-hospital practitioner training in handover procedures.
- 7.3. ED COGS and the Ambulance Service Provider will ensure that arrangements are in place within ECNs to manage that any difficulties that may occur in regard to handover procedures.

References

1. Australian Commission for Safety and Quality in Health Care, Passing the baton of care – a patient relay – May 2005
2. Bost, N., Crilly, J., Wallis, M., Patterson, E., Chaboyer, W. (2010) Clinical Handover of patients arriving by ambulance to the Emergency Department – A literature Review. *International Journal of Emergency Nursing* (2010) 18, 210 – 220
3. Murray, S.L., Crouch, R., Ainsworth-Smith, M. (2012) Quality of handover of patient care: A comparison of Pre-Hospital and Emergency Department notes. *International Journal of Emergency Nursing* (2012) 20, 24 – 27
4. NSW Ambulance / Emergency Department Handover Project Report
<http://www.archi.net.au/resources/safety/clinical/nsw-handover/ambulance-ed>

5. Talbot and Bleetman (2007) in Quality of the handover of patient care: A comparison of Pre-hospital & Emergency Department notes. Stephen L. Murray, Robert Crouch, Mark Ainsworth-Smith. International Emergency Nursing (2012) 20 24-27
6. You and your health service. HSE. Accessed 20th August at:
<http://www.hse.ie/eng/services/ysys/Documentation/YouYourHealthService.pdf>
7. The National Emergency Medicine Programme Report 2012. Accessed 5th July 2012 at
<http://www.hse.ie/emergencymedicine>.

Appendix A: ASHICE pre-alert message

The ASHICE mnemonic communicates the following information:

ASHICE

- A Age
- S Sex
- H History
- I Injuries/Illness
- C Condition
- E ETA – estimated time of arrival

Appendix C: Structured handover – IMIST AMBO*

I MIST AMBO

I	Identification
M	Mechanism/Medical Complaint
I	Injuries/Information relating to complaint
S	Signs
T	Treatment & Trends
A	Allergies
M	Medications
B	Background history
O	Other information

*I MIST AMBO aligns with the ISBAR (Identify – Situation- Background – Assessment – Recommendation) Handover mnemonic⁴

Appendix C: Ambulance Service Provider check-list

EMP Ambulance Patient Handover Protocol Ambulance Service Provider Implementation check-list



EMERGENCY
MEDICINE

Preparation

Easily accessible information for crews on:

- National Pre-alert Criteria
- ASHICE message
- IMIST-AMBO communication tool

Environment

Familiarisation with reception area for ambulance patients in local Emergency Departments
Use Infection control facilities at triage

Communication

Ensure staff are aware of two Handover scenarios; stable and unstable patients
Ensure staff are familiar with the importance of identifying themselves and their clinical level. Identify either the Resuscitation Team Leader or the triage nurse in the ED
Ensure staff follow the principles of good communication
Pre-hospital practitioners & ED staff should agree on Handover time before PCR is signed

Patient Care

Optimise patient safety and experience of care
Patient must move from the Ambulance stretcher or chair to an ED care area to complete handover

Data Capture and Analysis

Ensure that patient details are on all clinical documents; PCR, rhythm strips, ECG's
Ensure handover time is agreed by both pre-hospital practitioners and ED staff. Document this time on the PCR
Document reasons for handover delay on the PCR

Governance

Quantitative and qualitative handover data should be collected and monitored
Ensure familiarity with the National Pre-alert Criteria
Ambulance service providers should work with local Emergency Department Clinical Operation Groups to ensure that the Ambulance Patient Handover Time KPI is met
All key stakeholders should monitor the quality of the handover process

Education & Training

Include Ambulance Patient Handover protocol as a core component of pre-hospital practitioner Training. Ensure all staff have completed:
- the online Ambulance Patient Handover e-Learning programme
- local small group tutorials on handover skills

Appendix D: Emergency Department check-list



EMERGENCY
MEDICINE

EMP Ambulance Patient Handover Protocol Emergency Dept Implementation check-list

ED Structures and Support

Preparation

Communication methods: ≥ 2 of Dedicated Phone, 2-way Radio, Ambulance Arrival Computer Screen
Clear identification method for ED Ambulance Triage Nurse
Clear identification method for Resus Team Leader
ASHICE pad at communication centre

Environment

Allocate a reception area for ambulance patients
Infection control facilities available near triage
ED registration staff will come to non-ambulant patients

Education & Training

Include Ambulance Patient Handover protocol as a core component of ED training for medical, nursing & clerical staff.
Ensure all staff have completed:
- the online Ambulance Patient Handover e-Learning programme
- local small group tutorials on handover skills

Governance

Quantitative and qualitative handover data should be collected and monitored
Ensure familiarity with the National Pre-alert Criteria and agree local response to pre-alert calls
Local COGs should ensure that the Ambulance Patient Handover Time KPI is met
All key stakeholders should monitor the quality of the handover process

Patient reception

Patient Care

Optimise patient safety and experience of care
Patient must move from the Ambulance stretcher or chair to an ED care area to complete handover

Communication

Ensure staff are aware of two Handover scenarios; stable and unstable patients
Ensure staff are familiar with the ASHICE and IMIST-AMBO communication tools
Ensure staff follow the principles of good communication

Data Capture and Analysis

Ensure that patient details are on all clinical documents; PCR, rhythm strips, ECG's
Ensure handover time is agreed by pre-hospital and ED staff and documented on the PCR
Ensure that the PCR and accompanying clinical data is stored in the patient's ED care record
Ensure that EDIS records: Ambulance arrival time, Ambulance patient handover time & Triage time
Ensure that EDIS is configured to record both "At destination" and "At handover" data fields