



The Royal College of  
Emergency Medicine

# Emergency Department Capacity Management Guidance



**6** ESSENTIAL  
ACTIONS  
Unscheduled Care



healthier  
scotland  
SCOTTISH GOVERNMENT

# **Emergency Department Capacity Management Guidance**

© Crown copyright 2015



This publication is licensed under the terms of the Open Government Licence v3.0 except where otherwise stated. To view this licence, visit [nationalarchives.gov.uk/doc/open-government-licence/version/3](http://nationalarchives.gov.uk/doc/open-government-licence/version/3) or write to the Information Policy Team, The National Archives, Kew, London TW9 4DU, or email: [psi@nationalarchives.gsi.gov.uk](mailto:psi@nationalarchives.gsi.gov.uk).

Where we have identified any third party copyright information you will need to obtain permission from the copyright holders concerned.

This publication is available at [www.gov.scot](http://www.gov.scot)

Any enquiries regarding this publication should be sent to us at  
The Scottish Government  
St Andrew's House  
Edinburgh  
EH1 3DG

ISBN: 978-1-78544-697-9

Published by The Scottish Government, September 2015

# Contents

<b>Foreword by the Cabinet Secretary for Health, Wellbeing and Sport .....</b>	<b>3</b>
<b>1. This guidance.....</b>	<b>4</b>
<b>2. Background.....</b>	<b>4</b>
Crowding .....	4
<b>3. The 6 Essential Actions to Improving Unscheduled Care .....</b>	<b>6</b>
Essential Action 1. Clinically focused and empowered management.....	6
Essential Action 2. Capacity and patient flow.....	6
Essential Action 3. Managing the patient journey rather than bed management	7
Essential Action 4. Medical and surgical processes designed to pull patients from ED.....	7
Essential Action 5. Seven-day services .....	7
Essential Action 6. Ensuring patients are cared for in their own homes.....	7
<b>4. Developing a standardised process for managing ED capacity.....</b>	<b>8</b>
Decision to admit.....	8
Early notification.....	9
Clear and visible department management.....	9
Escalation steps to eliminate crowding .....	9
<b>5. Summary .....</b>	<b>11</b>
<b>6. Tips for implementation .....</b>	<b>12</b>
1. Working group.....	12
2. Senior leadership .....	12
3. Clinical engagement.....	12
4. Test and measure .....	12
5. The 6 Essential Actions to Improving Unscheduled Care .....	12
6. Clinically agreed local definitions .....	12
7. Clear decision matrices .....	12
8. Clinical responsibility.....	13
9. Implementing stage 3.....	13
<b>Appendix. Membership of ED Capacity Management Expert Group .....</b>	<b>14</b>
<b>References .....</b>	<b>15</b>

## Foreword by the Cabinet Secretary for Health, Wellbeing and Sport

I am delighted to be able to endorse this emergency department (ED) capacity management guidance in partnership with the Royal College of Emergency Medicine. The guidance, which sets out the risks of ED crowding and the effect on safety and patient care, offers a framework of escalation to proactively manage and prevent crowding in ED and/or assessment areas, along with implementation tips for NHS boards to consider.

The delivery of the four-hour emergency access target is a key ministerial priority and is about improving outcomes for people who are using services. The people of Scotland have told us what they want from health and social care services – care that is person-centred, safe and effective – and I am committed to ensuring that we do all we can to put in place sustainable measures, processes and practices to achieve better care in every part of the health and social care system in Scotland.

While the most visible and widely publicised example of pressure and patient care delays are patients on trolleys in EDs, this is not just an ED problem; crowding in the ED affects various parts of the hospital in different but interrelated ways. We recognise the multi-disciplinary issues and we must do more to minimise the risk to patients on a whole-system, integrated basis. This guidance, while offering a significant opportunity for NHS boards to ensure that front-door services operate effectively to avoid crowding in the ED, also supports a whole-system approach to eliminating crowding and sits within the context of a wider programme of work focused on improving unscheduled care.

I would strongly encourage all boards to embrace this guidance and develop standardised processes for managing ED capacity that will help to reduce variation and embed a culture of early referral and proactive capacity management, ensuring that patient flow is high-quality, safe and effective.

This guidance complements the work on the 6 Essential Actions to Improving Unscheduled Care, which has been created with our partners, including the Royal College of Emergency Medicine, to improve unscheduled care nationally.

The 6 Essential Actions national programme has accepted an ambition to support implementation of an escalation policy in every acute site across Scotland. We look forward to working together with you to eliminate crowding and in turn, improve the safe, high-quality and effective person-centred care delivered to people in Scotland.



A handwritten signature in black ink that reads "Shona Robison".

**Shona Robison, MSP**  
Cabinet Secretary for Health, Wellbeing and Sport

## **1. This guidance**

The Unscheduled Care Steering Group convened the Emergency Department Capacity Management Expert Group, which includes clinicians and managers (see Appendix), to review evidence and contribute their experience and expertise to the development of guidance to eliminate crowding in emergency departments (EDs) in Scotland. The aim was to develop an escalation framework for implementation across NHS Scotland.

This guidance, produced by the steering group, proposes the development of a standard operating procedure to avoid crowding by proactively managing capacity in the ED within the context of the 6 Essential Actions to Improving Unscheduled Care. The guidance also includes escalation steps that can be taken when crowding occurs.

Although the dangers of crowding are most frequently faced in EDs, the processes outlined in this guidance apply to any area providing urgent care to patients arriving directly from the community, such as acute medical, surgical or paediatric units.

## **2. Background**

EDs across Scotland have experienced significant difficulties in achieving the emergency access standard in recent years. There are many reasons for this, including input, throughput and output issues in relation to patient flow. Poor patient flow results in crowding in EDs and assessment areas, and has negative implications for patient experience, quality and safety.

The Cabinet Secretary for Health, Wellbeing and Sport has made the delivery of the four-hour emergency access target a ministerial priority. The Unscheduled Care Steering Group, which includes representatives of the Academy of Medical Royal Colleges and the Scottish Government, consequently defined the 6 Essential Actions to Improving Unscheduled Care.

The symptoms of poor patient flow are evident in EDs. EDs can, for example, become crowded when patients cannot be transferred to admission wards because of capacity issues. This contributes to ED crowding, with new patients not being assessed and existing patients neither being managed in an ideal environment nor receiving specialist input. Those with an acute need for specialist input are often elderly and are among the most vulnerable members of the ED population.

The causes of poor patient flow – and therefore the solutions – are system-wide and require a whole-system approach if they are to be addressed.

### **Crowding**

Published evidence shows that ED crowding is linked to increased morbidity and mortality.<sup>1-5</sup> Each NHS board and hospital must ensure urgent engagement with local clinicians and managers across medical, surgical and diagnostic services to develop a comprehensive interdisciplinary plan to address the causes of crowding and minimise harm to patients.<sup>4</sup>

The many inter-related types of crowding include the following.<sup>5</sup>

- ED crowding that delays the assessment of undifferentiated, unwell patients who have not been seen by a clinician. This can be experienced as:
  - ambulances unable to offload/transfer patients to the care of the ED
  - a locally determined number of patients waiting longer than two hours after referral for admission
  - physical occupancy in majors and resuscitation units in EDs being greater than 80 per cent.
- Admission ward crowding that risks causing delay in the further assessment and treatment of acutely unwell patients can be experienced as:
  - a delay of two hours or more between the decision to move a patient and admission to a specialty bed
  - occupancy of more than 100 per cent, meaning new admissions either cannot be transferred from ambulances or are diverted to another area or hospital.
- Hospital crowding affecting the delivery of non-urgent elective care can be experienced as:
  - cancellation of less urgent elective surgery such as joint replacement and non-cancer cases (for example, cholecystectomy and transurethral resection of the prostate).
- Hospital crowding seriously affecting the delivery of safe in-patient care can be experienced as:
  - cancellation of urgent elective surgery (such as for breast and bowel cancers)
  - boarding (patients admitted to nursed beds) in clinically inappropriate services, interfering with the delivery of safe and effective care
  - transferring/diverting acute patients to other hospitals and into inappropriate specialty beds
  - use of unfunded and/or understaffed beds
  - unplanned or short-notice discharge of other in-patients
  - inappropriate use of day-case facilities for in-patient care.

The inability to transfer patients who require admission is known by different terms, including access block,<sup>6</sup> ED boarding<sup>7</sup> and patient turnaway.<sup>5</sup> It is a reflection of problems across the whole system and relates to, among other things, demand management, streaming of GP referrals, capacity management and the timing of discharges.

The concept of access block is important. It can be defined as a patient being held in a queue and unable to progress to the next stage of care (such as an appropriate bed) within a defined timeframe. ED crowding may develop as a consequence.

Crowding is unacceptable and demonstrates poor patient flow through the whole system. It has negative implications for patient experience, safety and quality, and must be addressed in the context of the whole system. The 6 Essential Actions national programme supports NHS boards to work proactively to improve unscheduled care across the whole system. Local improvement plans must be implemented to ensure safe and effective flow through ED and the wider system, but contingencies in conjunction with local escalation policies should be in place for situations in which crowding occurs.

### **3. The 6 Essential Actions to Improving Unscheduled Care**

The 6 Essential Actions to Improving Unscheduled Care national programme adheres to the principles of right time, right place and right clinician for each patient through its concurrent work-streams on proactive discharge processes, site management and realignment strategies. Centred on the needs of the patient, it acts as a constant pressure to encourage proactive and predictive capacity management.

The 6 Essential Actions to Improving Unscheduled Care are outlined below.

#### **Essential Action 1. Clinically focused and empowered management**

A clear site-management process should be in place with robust communication lines across all services. Responsibility and accountability should be agreed across the NHS board seven days a week, with an appropriate site director appointed to support medical and nursing chiefs and duty managers in all services. This is crucial to ensuring central oversight of safety and flow on a day-to-day basis and supporting effective performance and management.

Escalation plans must give managers and clinicians explicit local guidance on the sequence of priorities to be addressed during times of capacity stress. It is essential that managerial and clinical teams in all services have a full understanding of, and are in agreement with, defined site responsibilities and can demonstrate awareness of, and be accountable for, actions required for standardised processes and escalation. These must be agreed and accepted by all clinical and managerial leads, and monitoring processes must be in place to ensure they are followed as routine.

Robust communication processes across a whole hospital site should include morning hospital-safety huddles, focusing on the day's activity and current status, and afternoon huddles, looking at prediction of capacity and demand for the next day. Such processes help inform standard operating procedures and escalation.

#### **Essential Action 2. Capacity and patient flow**

It is crucial to consider optimal patient pathways and ensure beds are available in the correct area at the correct time of day. Boards will examine their current systems, site by site, to see whether capacity in admission/assessment areas and specialist wards matches demand. This process should be based on historic site-specific data by time of day and day of the week. It should allow for surges in activity affecting EDs and acute assessment areas.

To reduce the occurrence of boarding, systems should allow for a locally agreed level of capacity to be available in the system when required, with flexibility in the assessment process to deal with predictable surges in activity. There should be a focus on reducing delays in any part of the in-patient journey. Clinicians and managers should ensure patients are in the right place to access care to meet their needs. Escalation policies should identify surge capacity within the system and how this will be appropriately addressed through the deployment of doctors, nurses and allied health professionals.



### **Essential Action 3. Managing the patient journey rather than bed management**

Following and facilitating the patient journey (flow) rather than bed management should be founded on early morning coordinated planning and hospital safety huddles. Discharge-hub facilities, discharge prescriptions, discharge lounges, professional leadership and liaison with the ambulance service should be planned effectively on a seven-day-a-week basis to ensure no delays in care occur. Discharge should be planned according to the patient's clinical condition. This means that patients should be discharged at the optimal time, with discharges before noon and over the weekend period consequently becoming more common. Using effective processes (electronic where possible) to track patients through their pathways ensures that operational grip and control is maintained.

### **Essential Action 4. Medical and surgical processes designed to pull patients from ED**

Hospital departments should be enabled to rapidly stream patients to appropriate and timely assessment in ED, and processes should be in place to pull patients from the ED to assessment/receiving areas where short-stay assessment or admission is necessary. Access to diagnostics and specialist opinion should be available when required, with workforce and job planning ensuring resources match demand. Twice-daily review by a consultant in acute assessment areas ensures active care management. Delays to care pathways and in discharges from wards can be minimised through daily decision-making reviews and multi-disciplinary rounds focusing on facilitating discharge when patients are deemed medically and therapeutically fit. This process can be supported by criteria-led discharge procedures spanning seven days.

### **Essential Action 5. Seven-day services**

Variations in access to assessment, diagnostic and support services during weekends and other out-of-hours periods should be reduced. Where possible, emergency care cases should be shifted to urgent care, length of stay should be reduced and rates of weekend and early-day discharges (when safe to do so) should be improved. It will also be necessary to "flex" services such as pharmacy, cleaning and transport to match work being undertaken in other seven-day services.

### **Essential Action 6. Ensuring patients are cared for in their own homes**

To sustain unscheduled care, it is important to support patients to manage their long-term conditions and live (and die) well at home. Close working with integrated joint boards and other community-led improvement programmes will enhance this approach. Local and national "Know who to turn to" campaigns, supported by local redirection policies, will educate patients about the most appropriate professional to meet their needs.

Anticipatory care plans will support decisions about optimal care and ensure rapid assessment is available when an unscheduled care episode occurs. This will help to minimise admissions, reduce length of stay if admission is necessary, and ensure transitions of care occur without delay.<sup>8</sup>

**It is vital that these Essential Actions are considered and implemented to ensure high-quality, safe and effective flow through the ED and the wider hospital. They should be carried out before ED crowding escalation steps are agreed and should align to the development of standard operating procedures.**

**The use of full-capacity protocol indicates the standard operating process in place is flawed and repeated use suggests a failing system. It should be considered a never-event requiring a response to untoward and unexpected circumstances.**

**It is essential that proactive actions are in place across the system to ensure crowding does not occur.**

#### **4. Developing a standardised process for managing ED capacity**

Crowding affects various parts of the hospital in different but interrelated ways. Locally agreed definitions of crowding must be developed and must be clear, specific and detailed about when triggers are activated.

Developing a standardised process for managing ED capacity will help to reduce variation and embed a culture of early referral and proactive capacity management, ensuring that patient flow is high-quality, safe and effective.

There should be agreed standard actions during the daytime and a clear plan in place for escalation out of hours. Senior staff in the hospital overnight should have the ability and authority to action these plans.

Thresholds for capacity stress should be agreed and defined locally. They must take into account incremental delays to moving patients from the ED or assessment areas, together with escalating markers of crowding.

Monitoring and managing every patient journey may require a tracking system. Escalation at specific points, such as first assessment, diagnostics and treatment, should be considered; escalation should be clearly defined at an early stage in the patient's journey to prevent crowding.

A standardised process should consider the following key components.

##### **Decision to admit**

Patient journeys cannot be delayed in the ED by waiting for specialist review or requests for tests that are not going to influence the decision to admit. Tests or investigations in the ED should nevertheless be prioritised to reduce delay in disposition decisions.<sup>4</sup> A key role of the ED is to identify patients who do not require in-patient care and to discharge them safely with appropriate follow up.

The decision to admit a patient should rest with a senior emergency medicine clinician at level ST4 (specialty training year 4) or above who has the necessary knowledge to assess risk in undifferentiated patients presenting to EDs. This is clearly dependent on staffing levels locally and may not be feasible 24 hours a day on all sites. When a senior emergency medicine clinician is available, there should be an expectation that he or she reviews all referrals for admission.

Once the decision to admit is taken, the patient should be moved to the ward when clinically appropriate without further delays for secondary review. The same should be true of patients in other direct-access receiving units (such as acute medical units) who have been reviewed by the admitting consultant and deemed appropriate for transfer (and take-over of care) to a downstream ward. This might involve the use of locally agreed, clinically relevant admission, transfer and discharge criteria to reduce variation.

### **Early notification**

Sites should ensure they have robust systems in place to monitor and manage capacity proactively on a daily basis. With improved communication of capacity and demand, early notification has been seen to be an effective early escalation step.

The receiving ward should be notified and a predetermined process followed if it is expected from initial triage or first assessment that a patient will require admission. It is accepted that some of these referrals may later be cancelled: the proportion of such cancellations should be reviewed as part of process evaluation.

As an example, a triage nurse may refer from the ED and be presented with three responses from the admitting ward:

- a bed is available and is now allocated to your patient – transfer when ready
- a bed will be available within an hour – transfer at or after this time
- no bed is available and it is unlikely that one will be available in an hour – this issue will be escalated.

A policy to describe how this information informs the escalation process should be in place. The key element is that a standard operating procedure should monitor each patient's journey every day to review capacity, and the system should respond at an early stage of delay to prevent crowding.

A mutually agreed pathway of care should be implemented for “to be admitted” patients (including those referred by a GP). Investigations in the ED should be limited to those required for emergency management or those that would immediately influence management on the patient's arrival in an acute admission unit.

### **Clear and visible department management**

Leadership and management of the ED and assessment areas ensures a focus on every patient, every time and monitors steps in the patient's journey to minimise delays. Some departments have used the role of flow coordinator as an alternative to robust electronic systems to good effect. Both approaches monitor patient care pathways and inform escalation processes where necessary.

A monitoring tool may need to be developed locally for each agreed journey point.

### **Escalation steps to eliminate crowding**

NHS boards should develop their standardised processes for managing ED capacity in the context of this guidance and the 6 Essential Actions to Improving Unscheduled

Care. The steps should ensure that patient flow is effective, safe and high quality, thereby proactively avoiding crowding and its negative implications for patient care.

Escalation steps must be agreed across executive, management and clinical levels to ensure agreed standard actions are in place in the event of crowding. They should cover daytime hours, with a clear plan for escalation out of hours. Senior staff in the hospital overnight should have the ability and authority to action these plans.

Based on the agreed standard operating procedure, thresholds for capacity stress and crowding should be defined locally: the agreed limits should be reached before escalation steps are activated.

The advised escalation steps take into account incremental delays to moving patients from ED or assessment areas and escalating markers of crowding. Three distinct stages must be clearly identified in the plan.

1. Clinically appropriate beds are not available for a predetermined number of patients defined locally (this is likely to be 10 to 30 per cent of total, fully occupied trolley spaces) within **two hours**<sup>4</sup> of the senior clinician's decision that the patient is ready to move. The following actions should be considered by senior operations managers at this time:
  - alert senior clinicians and managers across affected teams and convene in the ED or assessment area affected by crowding
  - initiate proactive discharges across all wards and departments
  - open additional acute staffed beds
  - review non-urgent elective care such as operations, infusions or investigations, and consider deferral.
2. Clinically appropriate beds are not available for a predetermined number of patients defined locally (likely to be 10 to 30 per cent of total occupied trolley spaces) within **four hours** of the senior clinician's decision that the patient is ready to move, **or** the ED is operating at 100 per cent capacity, **or** ambulances are unable to unload for more than 30 minutes due to lack of appropriate space. The senior operations manager continues with actions in Step 1. The medical director and senior management team should consider immediately:
  - cancelling all non-critical surgery across all specialties to free beds for admission and boarding
  - diverting GP referrals or stable emergency patients waiting for beds to neighbouring hospitals.
3. If clinically appropriate beds are not available for a predetermined number of patients defined locally (likely to be 10 to 30 per cent of total occupied trolley spaces) within **eight hours** of the decision by senior clinicians that a patient is ready to move, **or** the ED is operating at more than 100 per cent capacity (that is, using non-clinical space), the following actions are required:
  - immediate notification to the chief executive

- emergency incident group convened (to include senior clinicians from acute and in-patient specialties, emergency medicine and social work).

The emergency incident group should consider the following responses to ensure the rapid protection of patients from further harm:

- activation of a locally agreed full-capacity protocol (a patient being transferred to a ward or unit without a bed being available) to transfer safely acute workload to in-patient areas to avoid critical overload of the ED or assessment areas
- closure of the ED to new patients and diversion to neighbouring hospitals where possible (including discussion with neighbouring boards and the Scottish Ambulance Service).

**Note** The group does not endorse these approaches as part of normal management. The implementation of either of the last two actions detailed in bullet 3 above should be considered a never-event requiring a crisis response to untoward and unexpected circumstances. An emergency incident review will be necessary. Scottish Government Performance Management must be informed and the board and government press offices notified.

It is essential that all steps are taken to develop a standard operating procedure that monitors each patient to ensure crowding is avoided. All steps should be taken to understand decision-to-admit processes, capacity planning and early notification requirements.

Use of escalation step 3 indicates the standard operating process is flawed and repeated use suggests a failing system.

## 5. Summary

NHS boards are expected to develop improvement plans and standard processes for proactively managing capacity and avoiding crowding. Sites should prioritise the requirements of emergency/acutely unwell patients to ensure capacity always exists for them to be assessed in clinical spaces. It is also expected that patients will not have their progress through the system delayed at any point, and that the four-hour emergency access standard of 98 per cent will be achieved in all board areas to prevent crowding in EDs and acute receiving areas.

It is vital that each site does this in the context of the 6 Essential Actions to Improving Unscheduled Care. They should engage in advance with the adjoining streams for each Essential Action to ensure they are capable of managing demand, have flow from in-patient wards to discharge in place, and have secured the engagement of all acute care specialties.

Standard operating processes and clearly defined escalation procedures must be in place, supported by a mutually agreed communication plan across directorates, patient flows, the hospital site and the NHS board to ensure standard actions for ED crowding have been agreed. This will ensure that crowding is eliminated in the safest and most effective way and without delay. A clear line of daily responsibility for site management must be defined.

## **6. Tips for implementation**

NHS Lanarkshire offered to test the implementation of guidance on eliminating crowding in July 2015, initially in Hairmyres Hospital and then in Monklands and Wishaw hospitals. These tips for implementation are based on NHS Lanarkshire's learning. The Scottish Government recognises that they represent good practice in guidance implementation and recommends their use by NHS boards.

### **1. Working group**

The first step should be to form a short-life working group. This will help focus direction and momentum and provide a forum for engagement and a sense of shared ownership of ED crowding.

### **2. Senior leadership**

Strong senior leadership is essential for agreeing and leading development of the standard operating procedure. The NHS Lanarkshire working group was chaired by the chief executive and included clinical leaders, managers and directors, consequently providing strong senior leadership and support for the work.

### **3. Clinical engagement**

It is vital that clinical staff are fully engaged. Clinical leads from across all areas of the organisation should be members of the working group, ensuring that progress is clinically led and understood across the whole hospital. The group should also include senior nurses.

### **4. Test and measure**

Measures for eliminating crowding need to be agreed and tested at local level. Having a quality improvement lead working alongside a clinical lead helps ensure a robust process for tracking and measuring cycles of change and testing measures, local definitions and trigger points.

### **5. The 6 Essential Actions to Improving Unscheduled Care**

Successfully eliminating crowding relies on wider work across the system to improve unscheduled care. It is crucial that this work does not sit in isolation, but is considered within the context of the 6 Essential Actions, particularly in relation to daily site management and effective discharge planning.

### **6. Clinically agreed local definitions**

NHS Lanarkshire agreed clear definitions of what "crowding" and "overcapacity" meant locally, clearing any misconceptions staff may have held prior to the work commencing. Defining terms helps provide a structured framework for eliminating crowding at an early stage, before the department reaches full capacity.

### **7. Clear decision matrices**

Clear decision matrices with defined routes of action and accountability should be in place for occasions in which escalation is triggered. Escalation steps should be agreed at executive director, management and clinical levels.

## **8. Clinical responsibility**

To ensure patients are kept as safe as possible at all times, it is vital that clinical responsibility for individual patients when handing over is clearly understood. Strong clinical leadership and engagement should help support these discussions.

## **9. Implementing stage 3**

A recommendation to enact a full-capacity protocol should only be made after the ED lead nurse and doctor have discussed the situation in detail with the site director, lead nurse and lead doctor or on-call manager who, in turn, will require the chief executive or formal deputy (on-call director or deputy) to authorise any patient movement out of the ED to a full ward.

**This action, or any variation of a full-capacity protocol, is considered a never-event and must be subject to an immediate significant adverse event review.**

## Appendix. Membership of ED Capacity Management Expert Group

Dr Jennifer Armstrong	Chair, ED Capacity Management Expert Group;
Dr Dan Beckett	Medical Director, NHS Greater Glasgow and Clyde
Dr Tim Parke	Consultant Acute Physician, NHS Forth Valley; Chief Medical Officer Advisor for Acute and General Medicine
Dr Dave Caesar	ED Consultant, NHS Greater Glasgow and Clyde; representing College of Emergency Medicine
Dr Shobhan Thakore	ED Clinical Director, NHS Lothian
Dr Nicola Irvine	Clinical Lead, Emergency Medicine, NHS Tayside
Dr David Raeside	Clinical Lead, Acute Medicine, NHS Tayside
Professor Jim Ferguson	Consultant Physician in Respiratory and General Medicine, NHS Greater Glasgow and Clyde
Dr Kerry Mathieson	NHS Grampian/Clinical Lead at Scottish Centre for Telehealth and Telecare
Dr Simon MacKenzie	GP, NHS Forth Valley; Clinical Advisor to Unscheduled Care National Programme
Anne Harkness	Medical Director, St George's University Hospitals NHS Foundation Trust
Alan Hunter	Director of Emergency Care and Medical Services/Unscheduled Care Executive Lead, NHS Greater Glasgow and Clyde
Martin Hopkins	Director Unscheduled Care/Deputy Director Performance, Scottish Government
Helen Maitland	Programme Director, Whole System Flow Programme/Head of Performance Support, Scottish Government
	Unscheduled Care Director, Scottish Government

The Expert Group consulted with:

- the Unscheduled Care Programme Board
- the National Unscheduled Care Learning Workshop
- national unscheduled care executive leads
- the Unscheduled Care Steering Group
- a national learning workshop on the 6 Essential Actions to Improving Unscheduled Care.



## References

1. Sprivilis P et al. (2006) The association between hospital overcrowding and mortality among patients admitted via Western Australian emergency departments. *Medical Journal of Australia*. 184(5): 208–212.
2. Richardson D (2006) Increase in patient mortality at 10 days associated with emergency department overcrowding. *Medical Journal of Australia*. 184(5): 213–216.
3. Sun B et al. (2012) Effect of emergency department crowding on outcomes of admitted patients. Presented as an abstract at the American College of Emergency Physicians Research Forum, October 2011, San Francisco, CA; and at the Academy Health Annual Research Meeting, June 2012, Orlando, FL.
4. Royal College of Emergency Medicine (2014) Crowding in Emergency Departments – Revised June 2014. RCEM, London ([www.rcem.ac.uk/code/document.asp?ID=6296](http://www.rcem.ac.uk/code/document.asp?ID=6296), accessed 24 September 2015).
5. Forero R, Hillman K (2008) Access Block and Overcrowding: a Literature Review. University of New South Wales, Sydney ([www.acem.org.au/getattachment/a9b0069c-d455-4f49-9eec-fe7775e59d0b/Access-Block-2008-literature-review.aspx](http://www.acem.org.au/getattachment/a9b0069c-d455-4f49-9eec-fe7775e59d0b/Access-Block-2008-literature-review.aspx), accessed 24 September 2015).
6. Richardson D, Mountain D (2009) Myths versus facts in emergency department overcrowding and hospital access block. *Medical Journal of Australia*. 190(7): 369–374.
7. Singer A et al. (2011) The association between length of emergency department boarding and mortality. *Academic Emergency Medicine*. 18(12): 1324–1329.
8. Kripalani S et al. (2007) Promoting effective transitions of care at hospital discharge: a review of key issues for hospitalists. *Journal of Hospital Medicine*. 2(5): 314–323.



**The Scottish  
Government**  
Riaghaltas na h-Alba

© Crown copyright 2015

ISBN: 978-1-78544-697-9

This document is also available on The Scottish Government website:  
**[www.gov.scot](http://www.gov.scot)**

Produced for The Scottish Government by APS Group Scotland, 21 Tennant Street, Edinburgh EH6 5NA  
PPDAS57491 (09/15)

**w w w . g o v . s c o t**