Ambulatory emergency care guide
Managing increased demand from winter illness

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Introduction

This document is part of a series of ambulatory and emergency care guides supporting secondary care providers to deliver improved patient flow. The series also includes *Same day emergency care: clinical definition, patient selection and metrics* and *Same day acute frailty services*.

Increased demand for healthcare services in winter exerts severe pressure on the NHS, with an increase in acute presentations including respiratory, gastrointestinal and cardiovascular diseases. Infectious diseases become more prevalent and the system impact effects of influenza, respiratory syncytial virus, norovirus and rotavirus are considerable. Cold weather related physiological changes can also precipitate health problems, such as the winter peak in acute myocardial infarction.\(^1\)

This extra demand increases inpatient bed pressures and emergency department (ED) overcrowding. Impaired flow due to high bed occupancy adversely affects both urgent and elective pathways across medical and surgical specialties. The ad hoc distribution of patients away from the most appropriate ward as ‘outliers’ creates extra difficulties for staff, and increases the frequency of transfers. Such transfers worsen patient outcomes and experience, and increase length of stay\(^2\) – further exacerbating the problem. Frail patients are particularly vulnerable, and are at higher risk of complications from prolonged inpatient stays such as loss of muscle mass and functional status, loss of confidence, hospital-acquired infections, and delirium.

It is crucial for the NHS to plan to meet the inevitable seasonal pressures. This guide discusses common winter illnesses and outlines some key approaches to avoiding unnecessary admissions, reducing length of stay, and promoting efficient patient flow through the hospital. It is an expansion of our 2017 guide *Planning for increased seasonal demand in respiratory illness*.\(^3\)

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\(^3\) NHS England and NHS Improvement (2017) Quick guide – planning for increased seasonal demand in respiratory illness. [https://improvement.nhs.uk/resources/planning-increased-seasonal-respiratory-illness/](https://improvement.nhs.uk/resources/planning-increased-seasonal-respiratory-illness/)


Recommendations for trusts

1. Introduce acute frailty services in the emergency department (ED) and acute medical unit (AMU) for at least 10 hours a day, 7 days a week.

2. Maximise ambulatory/same day emergency care for at least 12 hours a day, 7 days a week.

3. Ensure rapid microbiological confirmation of all suspected influenza/norovirus patients.

4. Ensure ‘Red to Green’ methodologies on all wards.

5. Plan capacity on the basis of ‘lived experience’ and data from recent winters.

6. Introduce an ED surge protocol to maximise available space, prioritise patient safety and make the best use of staff.

Predicting peaks in demand

Beyond what is predictable by season alone, there is potential to anticipate shorter-term trends in demand. Public Health England (PHE) publishes weekly data on syndromic surveillance indicators – numbers of contacts with NHS 111, GP in- and out-of-hours and emergency department attendances – for a range of key seasonal conditions such as cough, difficulty in breathing, and diarrhoea and vomiting. Syndromic surveillance data, along with weather reports and outbreak information from PHE, feeds into the NHS national and regional winter operations rooms which advise and support trusts. The data is directly available to professionals and the public at:

This information can be used to anticipate and monitor emerging trends in population healthcare needs – for example:

- For every degree drop in temperature below 5°C, there is a 10.5% increase in primary care respiratory consultations from people aged over 65 up to 15 days later.\(^4\)
- For every degree drop in temperature below 5°C, there is a subsequent 0.8% increase in respiratory admissions in the following weeks.\(^5\)
- A concurrent rise in influenza-like illness and acute bronchitis may predict a peak of increased respiratory admissions after one to three weeks.\(^6\)

We are doing more work to further facilitate the predictive operational use of this information.

**Managing acute peaks in ED demand**

If ED demand outstrips capacity during a surge, the following actions should be taken.

1. Maximise available space by activating existing standard escalation plans and by reassessing patients on trolleys – are they ‘fit to sit’?

2. Prioritise patient safety – ensure patients each have an ED safety checklist or equivalent, move stable assessed patients to the appropriate ward (risk minimisation protocol), and open neighbouring clinical space.

3. Make the best use of staff – deploy extra nurses and healthcare assistants to the ED to maintain safe staffing ratios; use portering staff to transfer patients to the ward as a priority; direct on-call teams and their senior decision-makers to the ED to support patient flow, and facilitate suitable inpatient discharges through elective teams.

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Respiratory conditions

Most respiratory admissions are non-elective, and in winter they double in number, presenting great challenges in managing capacity and flow. Over the last seven years, the number of admissions to hospital of patients with lung disease has risen at over three times the rate of other conditions.

Use of AEC/SDEC services and urgent ‘hot’ clinics can allow appropriate patients to be managed safely without requiring hospital admission. In the national chronic obstructive pulmonary disease (COPD) audit, 45% of patients had a length of stay of 0-3 days. In the British Thoracic Society (BTS) adult community-acquired pneumonia audit (2015), 40% of admitted patients were classified as low severity, suggesting a proportion might have been suitable for treatment at home with appropriate support.

Clinical risk assessment tools, including CURB-65 for community-acquired pneumonia and DECAF for acute exacerbations of COPD, may be used in making decisions. The Royal College of Physicians’ Acute care toolkit recommends use of the ambulatory care (AMB) score.

British Thoracic Society admission and discharge care bundles should be used to ensure comprehensive, high quality care and optimise management in and out of hospital.

Readmission rates are high for patients with respiratory conditions. The national COPD audit revealed that following an index admission for an acute exacerbation, readmission rates are 24% at 30 days and 43% at 90 days. It also demonstrated

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7 The Royal College of Emergency Medicine (2016) Why does winter in A&E get worse every year?  
significant variation in lengths of stay, and a marked reduction in number of patients discharged over the weekend.

Patients presenting acutely with respiratory conditions commonly have comorbid diagnoses and may be frail; some may benefit from multidisciplinary input and community support.\textsuperscript{14} Strong links are required with community respiratory teams to facilitate communication and for ongoing optimisation of long-term management where required.

Seasonal influenza often contributes significantly to winter respiratory illness. Assessment areas should be organised so that patients with suspected influenza are isolated from other patients to avoid cross-infection. Telephone assessment and follow-up may help and is used by some existing AEC/SDEC services. Near patient ‘point of care’ tests for influenza and other respiratory viruses are available, delivering rapid results in less than an hour to guide clinical management decisions and enable efficient patient flow by guiding isolation decisions without delay.

**Good practice example**

In winter 2017/18, Kingston Hospital NHS Foundation Trust introduced a new molecular point of care test for influenza to the ED and acute assessment unit, which meant that swabs could be processed near the patient to deliver results in 20 minutes, rather than waiting for 1-2 days or more for a laboratory result.

The previous January, the trust had 60 negative tests out of 130 adult flu swabs, so many patients had been unnecessarily isolated for 1-2 days while awaiting results. In winter 2017/18, after introducing point of care testing, 909 confirmed negative cases (65% of suspected flu cases) were discharged or admitted without requiring isolation, once other risks had been excluded.

Rapid, accurate diagnosis of influenza at the point of care had a positive impact on bed management and patient flow, reduced bay closures, avoided

\textsuperscript{14} Royal College of Physicians (2014) Acute care toolkit 10: Ambulatory emergency care
unnecessary patient isolation, facilitated prompt appropriate treatment, and enhanced patient experience. 

In winter 2017/18, Addenbrooke’s Hospital carried out a package of interventions to improve the management of seasonal flu, including:

- a staff education programme and IT prompts to encourage clinicians to consider flu and promote optimal management
- timely sampling, including a local point of care test evaluation
- improved isolation practices
- early initiation of antivirals where indicated
- increased staff vaccination.

Gastrointestinal infections

Gastrointestinal infections such as norovirus and rotavirus peak in winter, and have been estimated to cost the NHS more than £100 million a year in years of high incidence. Norovirus is the commonest cause of gastrointestinal infections in the UK, with many more cases unreported in the community. We know it is highly contagious, spreading through contact with infected patients or contaminated food, drink or surfaces.

Outbreaks from contact-spreading in enclosed areas such as hospitals and care homes cause considerable disruption to patient care, from bed closures in hospital to delays in returning patients to community care facilities. As well as restricting bed utilisation, the necessity to create isolation areas affects staffing arrangements.

PHE publishes leaflets to increase public awareness of simple measures – patients should avoid attending GPs or hospitals where possible, with symptoms likely to resolve in 1-2 days.\textsuperscript{19} Where inpatient care is necessary, such as for patients with significant dehydration or other medical issues, affected patients must be isolated or segregated into bays with doors and appropriate physical separation from other areas. Staff should be aware of the need for personal protective equipment, and thorough handwashing with soap and water as the virus is not destroyed by alcohol gel.

Organisations should have comprehensive business continuity plans in the event of an outbreak. This should include clear policies on the segregation and movement of patients, staffing escalation and redeployment, provision of information to staff, patients and the public, and communication through outbreak meetings within and between organisations.\textsuperscript{20} Unnecessary hospital admissions from affected community facilities should be avoided, and discharge from hospital to unaffected nursing or residential care homes should be delayed until patients have been asymptomatic for 48 hours. Enhanced laundering processes for linen, increased frequency of decontamination, and ‘terminal cleaning’ of the area after recovery must be performed.


**Frailty**

Between 5\% and 10\% of ED attendees, and 30\% of AMU patients, are older people with frailty\textsuperscript{21} – a “health state related to the aging process in which multiple body
systems gradually lose their in-built reserves”. This results in difficulty recovering from ‘stressors’ such as infections and changes in medication. It is not synonymous with multiple long-term conditions or physical disability, although many of these patients will also be frail. Frailty contributes to longer lengths of hospital stay, higher readmission rates, and more frequent requirement for long-term care in the community.

Frail patients are particularly vulnerable to adverse effects from time spent in hospital, even if only for short periods. The environment can be disorientating, present potential for cross-infection, and decondition patients through reduced activity and loss of muscle mass, increasing their functional support needs. Interventions for frailty early in the hospital stay may reduce inappropriate hospitalisation, improve outcomes and potentially reduce the requirement for long-term care.

Initial assessment in frail patients may be challenging – they often present with ‘non-specific’ symptoms, such as delirium or falls, may have communication or cognitive issues, and require a careful and comprehensive assessment to identify their active medical issues. However, it is time well spent at presentation to prevent harm from avoidable prolonged admissions. Frail patients should not be excluded from AEC/SDEC services, as for appropriate patients they provide the opportunity to avoid the complications of hospitalisation.

Tools such as the Clinical Frailty Scale can assist in risk-stratifying patients, and targeting interventions such as the deployment of a rapid response multidisciplinary frailty team with links to primary and community care services, and telephone or clinic follow-up arrangements.

NHS England and NHS Improvement have developed the ambition for a frailty metric in 2018/19, for the provision of a multidisciplinary acute frailty service to all type-1 EDs for at least 70 hours a week to be delivered by the end of December 2019.

More information on providing high-quality and efficient frailty services is available from our AEC guide *Same day acute frailty services.*

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**Good practice example**

**University Hospitals Birmingham NHS Foundation Trust** has teams of physiotherapists and occupational therapists who work with patients in the ED, AMU and on wards to provide supported integrated discharge services. The teams work closely with the local council, and have access to temporary packages of care. They can provide rehabilitative support for up to 10 days after discharge, including nursing reviews and community therapy.²⁷

Birmingham Heartlands Hospital also runs a frailty ambulatory emergency care service. Patients are provided with a Comprehensive Geriatric Assessment from a team including elderly care physicians, an advanced clinical practitioner, therapists and nurses. This service has reduced admissions and enhanced the patient experience.²⁸

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**Avoiding unnecessary admissions: AEC/SDEC**

Ambulatory emergency care (AEC), or same day emergency care (SDEC), refers to the investigation, care and treatment of patients for whom in the absence of an AEC service, admission to hospital would have been the default option.

It is a well-established model for managing patients with acute conditions through an alternative pathway, providing high quality assessment and intervention without

²⁷ Acute Frailty Network (2016) case study. *Frailty at the front door.*  
the need for an overnight inpatient stay. Selected patients who would traditionally be admitted are instead streamed to a dedicated AEC unit, through which they are investigated, diagnosed and treated on the same day, allowing them to return home and attend for further review on subsequent days if required.

Key components of the service are:29

- early assessment by a senior clinical decision-maker.
- timely diagnostics.
- a short period of intervention or observation
- reassessment and formulation of an ongoing management plan.
- discharge to the community with appropriate advice, safety-net and clear communication with the patient, community services and general practice.

Hospitals providing an effective, efficient AEC can convert up to a third of acute medical admissions to ambulatory care episodes.30 Implementing AEC has also led to improved clinical outcomes, increased patient satisfaction and reduced costs.31

Crucially, AEC units must not be paralysed by being used overnight as an inpatient escalation area; this will prevent AEC activity and risk becoming the ‘norm’.

NHS England and NHS Improvement have developed the ambition for a metric that all trusts to have implemented AEC/SDEC for at least 12 hours per day by the end of September 2019.

Further information

Information and support on developing and expanding AEC services are available from:

- AEC Network: www.ambulatoryemergencycare.org.uk
- Royal College of Physicians: Acute Care Toolkit 10: www.rcplondon.ac.uk/guidelines-policy/acute-care-toolkit-10-ambulatory-emergency-care

• NHS Improvement: Good practice guide: focus on improving patient flow: https://improvement.nhs.uk/resources/good-practice-guide-focus-on-improving-patient-flow/

A publications index with links to a range of resources is available at:

• https://improvement.nhs.uk/resources/ambulatory-emergency-care-publications-index/

The Directory of Ambulatory Emergency Care provides in-depth guidance to enable organisations to adopt AEC and improve the way they manage the increasing demand for emergency services:

• www.ambulatoryemergencycare.org.uk/BAAEC/BAAEC-Resources/AEC-Directory

Providing specialist urgent outpatient care: rapid access/‘hot’ clinics

Many hospitals run rapid access/‘hot’ clinics for urgent access to secondary care specialist physicians, such as respiratory teams. This allows rapid access via GPs or acute secondary care teams to specialty physicians and nurses, enabling treatments to be optimised on an urgent outpatient basis and avoiding unnecessary admissions.32

Telephone advice may be given to primary care teams; referrals are accepted to see patients the same day or next day; and links with community services assist with management in the community.

Promoting safe, timely discharge: early supported discharge services

Early supported discharge services facilitate the timely discharge of patients through increased provision of medical, nursing and social support in the community. An earlier return home (with appropriate support) is preferable to patients, reduces the risk of hospital-acquired infection, boredom, frustration, loss of

independence and confidence, and reduces costs to providers.\textsuperscript{33} Such interventions are most effective if integrated between primary and secondary care.\textsuperscript{34}

Early supported discharge services for patients with existing chronic illness, such as respiratory disease, benefit from close links to associated home care teams and rehabilitation programmes, with arrangements to manage transfer of care. Between 2008 and 2014, the national COPD audit highlighted a significant increase in the use of these services with a reduction in length of stay. It also demonstrated a reduction in discharge numbers at weekends - early supported discharge services should be extended to the weekend to maintain flow.

\textsuperscript{33} British Lung Foundation and British Thoracic Society (2010) \textit{Ready for home? Improving hospital discharge care for people living with COPD}

Good practice examples

Developed as part of Sunderland Vanguard, the **Recovery-at-Home Team** is a collaboration between the NHS (South Tyneside Foundation Trust) and local authority (Sunderland Care and Support), providing individuals with high quality assessment and care at home to avoid unnecessary admissions and facilitate early discharge.

It is a nurse practitioner-led service operational 24 hours a day, 365 days a year, and can respond to referrals within 2-4 hours, depending on triage. The service includes a full assessment and clinical examination, investigations including blood tests and electrocardiograms, and treatment at the point of contact including antibiotics, nebulisers, steroids and analgesia. The service also delivers intravenous antibiotics in the community, reducing acute trust bed days. Care in the community is facilitated through care packages, intermediate step-up and step-down beds, and occupational and physiotherapy with rapid access to community equipment services. The service has incorporated a GP into clinical triage which enhances senior decision-making at the point of contact.

**The Derby Respiratory Infections Team** is a nurse-led service with respiratory consultant and pharmacy support, which aims to improve the care of patients admitted to hospital with community-acquired pneumonia. Patients are reviewed on a daily basis, 365 days a year, and the service:

- identifies patients with low-severity CAP for outpatient management, including early telephone-supported discharge and nurse-led clinic follow-up
- facilitates streaming of antibiotic regimens using point of care microbiological tests, with rationalisation both in route (oral over intravenous) and spectrum (narrow over broad).

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Optimising patient flow

The **SAFER patient flow bundle** is a tool to optimise patient flow and promote best practice. The elements are:

- **S** – Senior review before midday
- **A** – All patients will have an expected date of discharge and clinical criteria for discharge
- **F** – Flow of patients from assessment units to wards should take place as early as possible
- **E** – Early discharge: aim to discharge patients from inpatient wards by midday
- **R** – Review: multidisciplinary reviews of patients in hospital for more than 7 days.

More information is available at: [https://improvement.nhs.uk/resources/safer-patient-flow-bundle-implement/](https://improvement.nhs.uk/resources/safer-patient-flow-bundle-implement/)

The **Red2Green days** approach is a visual management system identifying ‘wasted time’ in a patient’s journey, in which a day is marked green when a patient receives value-adding care that could only be provided in an acute hospital bed, or red if not. More information is available at: [https://improvement.nhs.uk/resources/rapid-improvement-guide-red-and-green-bed-days/](https://improvement.nhs.uk/resources/rapid-improvement-guide-red-and-green-bed-days/)

The **‘Fit to Sit’ and ‘End PJ Paralysis’ campaigns** promote mobility in patients who are well enough to do so, to prevent loss of muscle strength and support timely discharge. [https://improvement.nhs.uk/resources/are-your-patients-fit-sit/](https://improvement.nhs.uk/resources/are-your-patients-fit-sit/)

**Demand surge management: proactive adjustment of activity**

During peak periods of winter pressure, trusts should consider ‘swinging’ beds ordinarily used for elective surgical activity to increase the complement managed by respiratory, general and acute medical specialists. Any change in use should be planned well ahead, in collaboration with surgical teams, who may make proactive adjustments to the balance of day case and elective inpatient work.

Groups of ‘swing’ beds should be managed as conventional wards by established medical teams. They should not be used as short-term ‘escalation’ beds managed
by a range of teams as ‘outliers’. Trusts should support this with a concurrent increase in AEC/SDEC to increase senior decision-making capacity and avoid unwarranted overnight stays.

Next steps

We want this guide to develop and reflect best practice nationally – share your examples with: england.urgentcarereview@nhs.net.
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