Quick guide: planning for increased seasonal demand in respiratory illness

Published by NHS England and NHS Improvement

December 2017
The British Thoracic Society is pleased to endorse this quick guide, which sets out clear recommendations that acute trusts and community services can put in place to provide a better service for patients with respiratory conditions, reducing admissions and supporting early discharge back to the community.

Dr Lisa Davies
Chair, British Thoracic Society Board of Trustees

We are pleased to see the NHS recognising the severe pressure on emergency departments that happens every winter and recommending practical changes to the way hospitals are run. This is a vital part of improving care for all patients especially those with lung disease.

Dr Penny Woods
Chief Executive, British Lung Foundation
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Each winter, emergency departments (EDs) experience a surge in respiratory attendances, and emergency admissions for respiratory conditions almost double. This greatly increases ED crowding, bed occupancy and the growth in outliers throughout the hospital with consequent negative impacts on patient outcomes, length of stay and experience.¹

It is crucial to plan for this inevitable increase in demand so that patient flow is maintained. This quick guide highlights proven tactical approaches to manage increased respiratory demand, including ambulatory emergency care (AEC), ‘swing beds’, early supported discharge services and urgent ‘hot’ clinics. Use of these initiatives can reduce avoidable overnight admissions and improve patient flow and outcomes. Our recommendations are:

1. Plan early for the inevitable increase in demand from patients with respiratory conditions.

2. Implement proven approaches to reduce avoidable overnight admissions, including ambulatory emergency care and respiratory ‘hot’ clinics.

3. Expand the provision for early supported discharge services, and work to develop strong links with community services.

4. In the event of a reduction in the number of beds used for elective surgical activity, consider ‘swinging’ these beds to increase the complement managed by respiratory specialists.

We recommend all local accident and emergency (A&E) delivery boards carefully consider these measures as part of plans to manage the seasonal surge in respiratory admissions. Winter directors and regional directors will want to be reassured that appropriate planning has taken place and that all necessary steps have been taken to manage demand and are included in local winter capacity plans.

The respiratory surge

Case for action

The winter increase in respiratory diseases places enormous pressure on the acute healthcare system. Most respiratory admissions are non-elective, and in winter they double in number\(^2\) presenting great challenges in managing capacity and flow.

Advance notification

Data is available that can be used to forecast an increase in respiratory related attendances. For example:

- For every degree drop in temperature below 5C, there is a 10.5% increase in primary care respiratory consultations from people aged over 65 up to 15 days later.\(^3\)

- For every degree drop in temperature below 5C, there is a subsequent 0.8% increase in respiratory admissions in the following weeks.\(^4\)

- Public Health England (PHE) publishes data weekly on syndromic surveillance indicators – contacts with NHS 111, GP in- and out-of-hours and emergency department attendances – for a range of key seasonal conditions. A concurrent rise in influenza-like illness and acute bronchitis may predict a peak of increased respiratory admissions after one to three weeks.\(^5\)

The data above is publicly available on the PHE website, and will feed into the regional and local NHS winter rooms. This will be communicated to the system as part of local winter plans.

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\(^2\) The Royal College of Emergency Medicine (2016) *Why does winter in A&E get worse every year?*


Ambulatory emergency care

Ambulatory emergency care (AEC) is a well-established model for managing patients with acute conditions through an alternative pathway, providing high quality assessment and intervention without the need for an overnight inpatient stay. Selected patients who would traditionally be admitted are instead streamed to a dedicated AEC process 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:  

- 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-netting and clear communication with the patient, community services and general practice.

Hospitals introducing AEC may convert up to a third of acute medical admissions to ambulatory care episodes. Sites implementing AEC have demonstrated improved clinical outcomes, increased patient satisfaction and reduced costs.

There are various models of AEC, with combinations of emergency physicians, GPs, secondary care specialty teams, nurses, occupational and physiotherapists, social workers and patient transport services.

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Information and support on developing and expanding AEC services are available from the AEC Network (www.ambulatoryemergencycare.org), Royal College of Physicians’ acute care toolkit, and NHS Improvement’s Good practice guide: Focus on improving patient flow. 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’.

### Respiratory rapid access/’hot’ clinics

Many hospitals run respiratory ‘hot’ clinics. This avoids unnecessary admissions by allowing rapid access to respiratory physicians and specialist nurses to enable stable patients to be managed in the community.⁹ 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.

### 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.¹⁰ Such interventions are most effective if integrated between primary and secondary care,¹¹ and benefit from close links to home care respiratory teams and rehabilitation programmes, with arrangements to manage transfer of care.

Between 2008 and 2014, the national chronic obstructive pulmonary disease (COPD) audit highlighted a significant increase in the number of patients referred into early supported discharge services and a consequent reduction in the length of stay. Extending these services outside ‘office hours’ could particularly tackle the reduced rates of discharge on Saturdays and Sundays.

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Alternative use of elective capacity

During peak periods of winter pressure, trusts should consider ‘swinging’ beds ordinarily used for elective surgical activity to increase the complement managed by respiratory specialists. Any change in usage should be planned well ahead and ensure that ‘swung’ beds are managed by established medical teams and not as short-term ‘escalation’ beds. To avoid this, trusts should consider an increase in AEC capacity to manage demand and increase senior decision-making capacity.
Additional considerations

Risk assessment tools

Clinical risk assessment tools, including CURB-65\textsuperscript{12} for community-acquired pneumonia and DECAF\textsuperscript{13} for acute exacerbations of COPD, may be used in decision-making. The Royal College of Physicians’ acute care toolkit recommends using the ambulatory care (AMB) score.\textsuperscript{14}

Isolation requirements

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 be of benefit, as used by some existing AEC services.

Specialist respiratory input

If a patient with a long-term respiratory condition is managed on an ambulatory basis without contact from a respiratory physician, arrangements should be in place to facilitate communication with community respiratory teams for ongoing optimisation of long-term management where required.

Admission and discharge bundles

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: https://www.brit-thoracic.org.uk/standards-of-care/quality-improvement/care-bundles-for-copd/

\textsuperscript{12} https://www.nice.org.uk/guidance/cg191/chapter/1-recommendations
Examples of good practice

Many trusts across the country are achieving great improvements in patient experience and patient flow through effective initiatives. Examples include:

**The Sunderland Vanguard** operates a recovery-at-home team\(^{15}\) through collaboration from the NHS 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 two to four hours, depending on triage. The service includes a full assessment and clinical examination, with investigations including blood tests and ECGs, and treatment at the point of contact including antibiotics, nebulisers, steroids and analgesia. Care in the community is facilitated through care packages, intermediate care beds, and occupational and physiotherapy with rapid access to community equipment services. The vanguard has recently implemented an emergency department interface team to co-ordinate same-day community health and social support to avoid unnecessary admissions, and is including GPs in the team.

**The Manchester University NHS Foundation Trust community respiratory team** is a consultant-led multidisciplinary team (MDT) made up of specialist respiratory nurses and physiotherapists. It works across the healthcare system and provides a number of services for people with COPD and asthma including:

- rapid review of acutely unwell COPD patients in the community
- early supported discharge service from hospital
- COPD and asthma care bundles on the ward
- palliative care MDT
- spirometry
- patient education and self-management support
- ongoing care for patients with complex needs
- integrated Breathe Easy groups.

\(^{15}\) [http://www.atbsunderland.org.uk/recovery-at-home/](http://www.atbsunderland.org.uk/recovery-at-home/)
It runs community-based clinics and a pulmonary rehabilitation programme.

In addition to its ambulatory care service, the University Hospitals of Leicester NHS Trust runs frequent subspecialised clinics for stable patients with pleural disease including small pneumothoraces and unilateral pleural effusions, so that they may be managed on an urgent outpatient basis.
Next steps

Future developments and next steps:

- Building on syndromic surveillance data use in 2017/18, we will explore opportunities for developing predictive modelling to understand the likely impact of respiratory disease and other seasonal illnesses in the community and to anticipate demand and plan capacity.

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

- The AEC model and its application is clearly described in the Directory of ambulatory emergency care for adults Version 5 (2016), which also provides in-depth guidance to enable organisations to adopt AEC and improve the way they manage the increasing demand for emergency services – available from https://www.ambulatoryemergencycare.org.uk/. This document is being updated, and Version 6 is scheduled for publication in January 2018 with updated ICD10 codes and new clinical scenarios.
Additional information

The winter increase in respiratory diseases

The winter increase in respiratory diseases places enormous pressure on the acute healthcare system, presenting great challenges in managing capacity and flow. Emergency department overcrowding, and the ad hoc distribution of patients as outliers as beds become available throughout the hospital, are associated with slowing of care processes, excess intra-hospital transfers and a negative impact on patient outcomes and experience.\(^{16}\)

In the national COPD audit, 45% of patients had a length of stay of 0-3 days\(^ {17}\). In the BTS adult community-acquired pneumonia audit (2015), 40% of admitted patients were classified as low severity by CURB score,\(^ {18}\) suggesting a proportion might have been suitable for treatment at home with appropriate support.

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 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 co-morbid diagnoses and may be frail, and as such some may benefit from multidisciplinary input and community support.


NHS Improvement AEC guidelines

NHS Improvement recommends AEC is open for at least 14 hours a day, seven days a week. Appropriate patients should be referred by GPs and streamed from A&E, with regular ED board rounds with the AEC physicians to ensure all appropriate patients are identified. All patients presenting acutely who are not clinically unstable should be considered for AEC. Patient appropriateness should be determined through clinical conversation between the referrer and a senior AEC clinician, and supported by clinical risk stratification tools.