

In brief

Rapid access models of care for respiratory illnesses

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Question

- What is the evidence for rapid access models of care for respiratory illnesses, especially during winter seasons, in emergency departments?

Summary

- Alternative models of care for acute respiratory illnesses aim to reduce the demand for emergency department and other inpatient hospital services and support patients in the community and at home.
- Existing alternative models of care include:
 - respiratory clinics which respond to referrals from primary care clinicians or emergency departments and are staffed by specialist respiratory clinicians¹
 - pre-hospital emergency pathways which attend to emergency medical calls at home²
 - acute management and observation services provided by trained general practitioners and nurses
 - general practice respiratory clinics for people with low acuity respiratory symptoms.
- Virtual care assessment, triage and management has become one of the key components of more recent alternative models of care within the context of the ongoing COVID-19 pandemic.

Key literature

Peer-reviewed literature

- [Cough cold and fever clinic](#): This clinic was set up in an outpatient practice in New York in 2020. Patients with relatively stable vital signs were referred to this service through three sources: primary care providers, sub-specialist providers, and emergency department providers. Virtual care was used for pre-visit triage and post-visit follow up given the ongoing COVID-19 pandemic. Over 90% of patients seen at this clinic were discharged home.¹
- [Alternative pre-hospital pathway](#): This community emergency medicine initiative was developed in Cork, Ireland. The team consisted of a specialist registrar in emergency medicine and an emergency medical technician. The team were dispatched to low acuity emergency calls. A retrospective analysis of the first 12 months of operation found that respiratory complaints were one of the most common patient presentations and this service achieved a 68% non-conveyance rate (rates of patients who were sent an ambulance but not conveyed to an emergency department).²
- [Respiratory hot clinic](#): This clinic was set up in North West, United Kingdom in 2016 to provide early specialist care for patients discharged early from acute emergency admission units and inpatients. A retrospective study of patients who attended this clinic found that this service was effective in reducing the length of stay at hospitals and providing safe and early support and follow up.³

- **Acute demand management service:** This service was set up in the Canterbury region of New Zealand. The service was staffed by general practitioners and nurses who were trained and supported to provide and coordinate increased acute care. This service resulted in the reduction of demand for acute care in the hospital settings and Canterbury had the lower rates of emergency department attendance and acute medical admissions compared to other regions. The key components of this service included:
 - 24-hour surgery and observation unit: mainly focused on febrile children and those with gastroenteritis and respiratory disorders
 - extended care at home: hospital substation via home-based medical services
 - access to rapid diagnostics including radiology, ultrasound, electrocardiogram and blood tests
 - specialist phone support.⁴

Grey literature

General practice respiratory clinics

- **Victoria, Australia:** The [general practice respiratory clinics](#) are for people with mild respiratory symptoms and provide both the face-to-face and virtual care assessment and immediate support. Currently there are more than 40 general practice respiratory clinics across Victoria.⁵
- **Tasmania, Australia:** The extended general practice-led respiratory clinics will play a crucial role in the hospital avoidance strategy by supporting assessment and management of respiratory illness.⁶

Respiratory acute discharge service

- **Queensland, Australia:** The [respiratory acute discharge service](#) aims to keep people with chronic obstructive pulmonary disease at home by providing them with education and tools on how to manage exacerbations at home.⁷ During the pandemic, these people who attended the hospital with an acute exacerbation were discharged to the service for home support.⁷ An [evaluation](#) of this early supported discharge care model with nurse-led community-based recovery found this model to be safe and effective in reducing hospital length of stay and reducing the healthcare costs.⁸

COVID@home including respiratory illnesses

- **Tasmania, Australia:** [COVID@home](#) service has been extended to include other respiratory illnesses. Participants in the program are supported by a remote monitoring service and 24/7 care contact, and receive virtual healthcare monitoring kit.^{6, 9}

Respiratory rapid access or hot clinic

- **Bristol, UK:** This [respiratory rapid access or hot clinic](#) model allows general practitioners and other primary care practitioners to refer patients with acute respiratory problems to a hot clinic which is staffed with respiratory consultants and nurses.¹⁰ This clinic accepts referrals on the same or next day or provides telephone advice to primary care clinicians. It discharges patients with a management plan and links to community services.¹⁰ An [retrospective assessment](#) of this service found that this model had resulted avoidance of hospital admission in 91% the patients.¹¹

Respiratory clinical assessment service hubs

- **NHS, United Kingdom:** The [respiratory clinical assessment service](#) aim to reduce the emergency department attendance by adults and children with respiratory problems which can be appropriately managed in the community.¹²

- Inclusion criteria: “adults and/or children with acute respiratory symptoms, most likely due to infection (eg COVID, respiratory syncytial virus (RSV), influenza, bacterial), who have been identified through an initial remote consultation as requiring face-to-face assessment but not as requiring immediate, urgent transfer to hospital”.¹²
- Referral routes: “NHS 111/integrated urgent care (IUC) clinical assessment services (CASs) and [general] practices. Consideration may also be given to receiving patients who are referred by other primary care services, community health services, secondary care or ambulance services/clinicians, and have been clinically assessed and identified as requiring an urgent follow-up but not an emergency admission”.¹²

Method

To inform this brief, PubMed and Google searches were conducted using terms related to models of care, emergency department, and respiratory illness on 30 May 2022.

References

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In brief documents are not an exhaustive list of publications but aim to provide an overview of what is already known about a specific topic. This brief has not been peer-reviewed and should not be a substitute for individual clinical judgement, nor is it an endorsed position of NSW Health.

12. National Health Service (NHS). Combined adult and paediatric respiratory clinical assessment service (RCAS) hubs for acute respiratory infection [Internet]. England: NHS; 2021 Dec 23 [cited 2022 June 10]. Available from: <https://www.england.nhs.uk/wp-content/uploads/2021/12/BW903-combined-adult-and-paediatric-respiratory-clinical-assessment-service-hubs-for-acute-respiratory-infecti.pdf>.

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