

Combined adult and paediatric respiratory clinical assessment service (RCAS) hubs for acute respiratory infection

23 December 2021

1. Introduction

This document supports systems to plan for a likely rise in respiratory infections (eg COVID-19, respiratory syncytial virus [RSV], influenza and other infections) this winter.

One potential use of the new Winter Access Fund is the creation of respiratory clinical assessment service (RCAS) hubs, and many systems are exploring this option.

Here you will find:

- data on respiratory infection prevalence in adults and children
- high level estimates of the impact of respiratory infections on health services over this winter
- links to the most up-to-date respiratory infections regional prevalence data
- links to learning materials for healthcare professionals on assessing and supporting patients with respiratory infections
- update on the national provision of paediatric oxygen saturation probes.

Due to reduced mixing last winter, it is likely that population immunity to respiratory infections will have waned, and as a result this winter rates of respiratory infection due to influenza, RSV and other respiratory pathogens will be higher than usual, with the very young, very old and those with pre-existing long-term conditions, such as chronic obstructive pulmonary disease (COPD), at greater risk of severe disease. This scenario could impact on both primary care and hospital admissions, and be further compounded by future outbreaks of COVID-19.

In its rapid review, [COVID-19: Preparing for the future: Looking ahead to winter 2021/22 and beyond](#), the Academy of Medical Sciences (AMS) suggested a reasonable worst case scenario was that RSV levels could rise rapidly with a peak outbreak in early autumn 1.5 to 2 times the magnitude in a 'normal' year, and that this could result in a 25% to 65% increase in cases in children under five years old and a 30% to 100% increase in the youngest infants.

Following further modelling, taking the reasonable worst case scenario for RSV and flu together across all ages, overall this could result in over half a million (587,000) additional emergency department (ED) attendances – equivalent to a 3.7% increase in total annual attendances compared to 2019.

Data for respiratory infections (all age) to support local planning

December 2021 [UK Health Security Agency \(UKHSA\) Emergency Department Syndromic Surveillance](#) reports showed that daily respiratory-related ED attendances have increased steadily since March 2021, with marked increases between May and June 2021 and September and October 2021, and were higher than the last peak in September 2020. The most significant increases in July were seen in children aged under five, but there were also marked increases in the 15–44 age group.

Up-to-date figures (refreshed weekly) for respiratory infections (adults and children) and for ED attendances by region can be found via the surveillance report links in Section 9: Data and learning materials.

In addition, weekly UKHSA Surveillance bulletins report the number of people presenting in primary care with respiratory infections. The up-to-date figures can be accessed via the syndromic surveillance: systems and analyses data link in Section 9.

System working to support health services

In its rapid review, the AMS highlights the importance of system working to support all parts of the health system:

“A peak in RSV would also put pressure on primary care, which sees the majority of RSV patients, predominantly in the under-fives. Primary care, secondary care and NHS111 will need to work together to prevent large numbers of children and older patients with breathing difficulties from being triaged with the outcome of an emergency ambulance, as many of these patients do not need to be admitted and can be looked after in the community. Face-to-face primary care is best suited to select the most appropriate outcome, which would result in a large extra workload in primary care.”

Primary care access to specialist input, with immediate advice and options for timely specialist review or facilitated admission, may support patients and primary care and help prevent avoidable hospital admission.

Infection prevention and control

Infection prevention and control (IPC) guidance recommends cohorting patients who are symptomatic for COVID-19; the criteria for this do not apply to those with other respiratory infections pending test results.

Providing timely face-to-face assessment in general practice to large numbers of symptomatic patients alongside non COVID-19 clinical activity may be challenging, particularly where premises do not allow easy separation of patient groups.

Supporting optimal management of respiratory infections over coming months through the use of dedicated RCAS hubs may support the healthcare system to provide high quality and timely care for these patients, as well as existing healthcare services to address the backlog of non COVID-19 care, acute pressures and the ongoing COVID-19 vaccination programme.

2. Sharing of models

Based on these figures and modelling, some systems are already starting to plan models of care to support patients and services. A model that clinical commissioning groups (CCGs)/integrated care systems (ICSs) might want to consider is the establishment of an out-of-hospital RCAS hub to manage the likely increase in respiratory infections. This might be for children and/or adults depending on local demand. These would have access to supplementary advice and guidance from paediatric/respiratory/acute medicine clinicians, which hub clinicians could access (via telephone/digital/video). Onward referral to a specialist may also be appropriate for some patients.

The aim of these hubs would be to:

1. reduce ED attendance and hospital admission from patients who could be appropriately managed in the community
2. support general practice by providing access to specialist advice as needed
3. reduce nosocomial transmission of COVID-19 and other infectious conditions by cohorting symptomatic patients and obviating the need for GP practices to simultaneously see both infectious and non-infectious patients

4. support elective recovery in hospitals (by relieving bed capacity) and in general practice (through safer cohorting).

CCGs and ICSs may already have these services in place, such as those established early in the pandemic to stream COVID-19 and non COVID-19 patients safely. The advice in this document should not prompt revision of existing arrangements where these are already established and working well.

Of note, some areas are also exploring RCAS hubs to include respiratory presentations with both infective and non-infective pathologies.

3. Inclusion criteria

The inclusion criteria could be adults and/or children with acute respiratory symptoms, most likely due to infection (eg COVID, 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.

Note: Pregnant women may be referred to RCAS hubs, but early maternity involvement should be sought for specific advice around management of suspected acute respiratory infection, including COVID-19, in pregnancy. Pregnant women with deteriorating respiratory symptoms should be advised to contact their midwife or maternity team, or if clinically appropriate, attend their nearest A&E department immediately or call 999.

The main referral routes are likely to be NHS 111/integrated urgent care (IUC) clinical assessment services (CASs) and GP 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.

4. Staffing and oversight

Systems will know their provider and workforce landscapes and how best to deliver these services locally. Funding to establish these services in the remainder of 2021/22 may be available through the Winter Access Fund, by agreement with local systems.

We anticipate that the RCAS:

- is operated through a hub type model, which may draw on multidisciplinary staff from multiple settings and build on existing arrangements
- has timely access to **rapid** telephone/digital/video advice (eg paediatric/respiratory/general medical) during opening hours and guidance is secured and established.

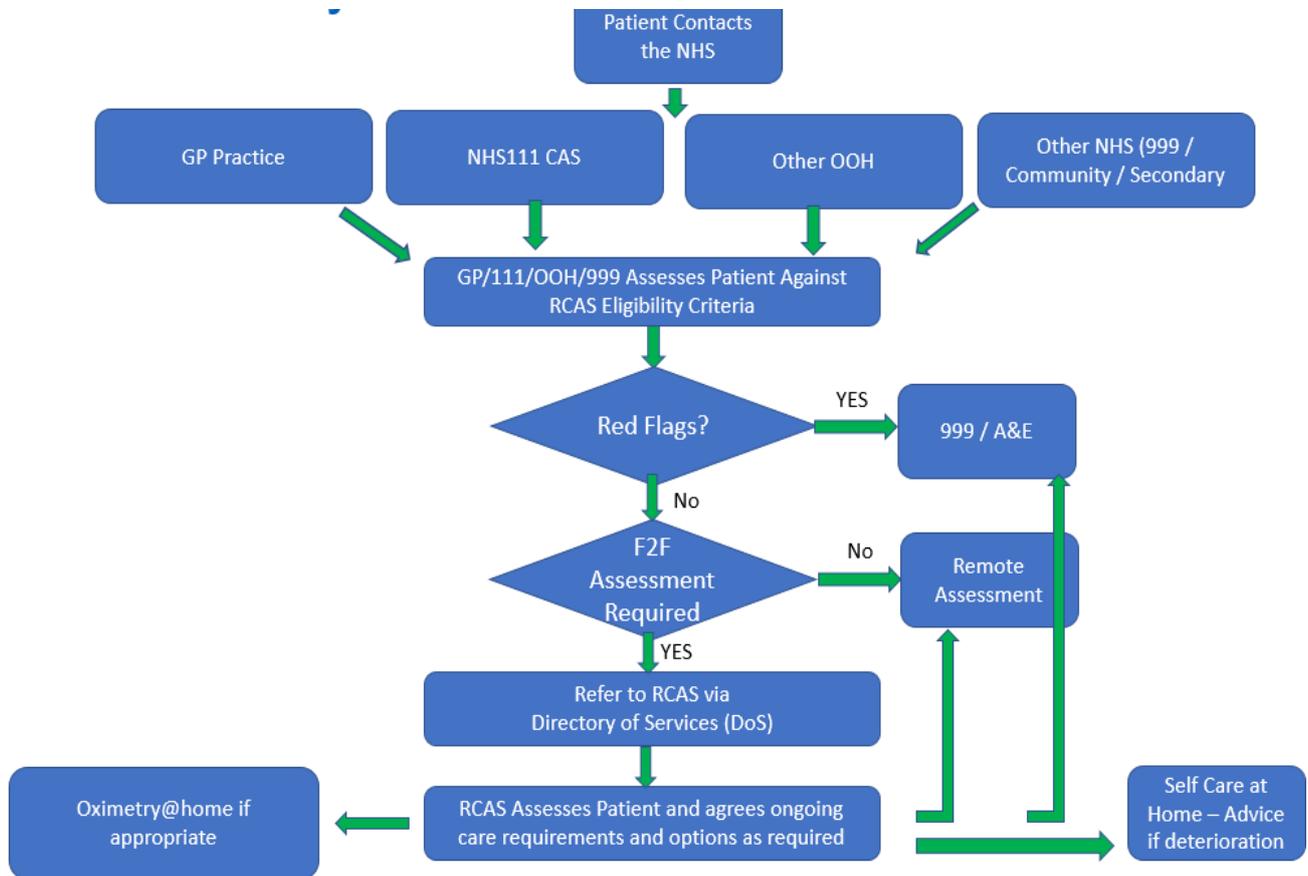
Legal responsibility, including to ensure appropriate clinical governance, remains with the relevant provider. Each CCG/ICS should have a named person responsible for the establishment of the service in their area. RCAS clinical, governance and administrative responsibilities can be provided by any appropriately trained person and best use of resources should be made.

Access arrangements and opening hours for RCAS hubs will need to be locally agreed based on prevailing need, and local arrangements made for out-of-hours cover.

The RCAS hub should be led by a named clinician.

5. RCAS patient journey

Example RCAS patient journey



Different areas may design their pathway differently, depending on local circumstances.

Referral

- NHS 111/IUC CASs, GP practices, ambulance and community health services will need to ensure timely assessment and referral of patients who meet the inclusion criteria.
- Arrangements will depend on how the pathway is delivered, eg through individual GP practices, primary care networks, community health services or acute trusts.
- Patients should be advised to self-isolate in line with current COVID-19 guidance.
- Patients meeting the criteria for referral to [COVID Oximetry@home](#) should be onboarded to that pathway.

Assessment

Clinical judgement remains paramount for all assessments, particularly for children and patients with higher risk factors or other complicating medical conditions.

- To prevent duplication of clinical workload and avoid delays to patient care, referring clinicians may be able to directly book patients for timely face-to-face assessment according to clinical need.
- RCAS clinicians should have rapid access to specialist advice and guidance during service opening hours.
- If eligible for the [COVID Oximetry@home](#) pathway, refer as appropriate.
- Patients assessed in the service should be given clear guidance on how to access further advice or support, which may be from the RCAS service directly or another appropriate healthcare setting (eg GP practice/NHS 111).
- General principles and example pathways for assessment and management of children with respiratory symptoms out of hospital are available from the [Royal College of Paediatrics and Child Health](#).
- NHS England and NHS Improvement have purchased and our regional teams are distributing 4,000 paediatric pulse oximeters. Information, training and guidance will be made available via the e-Learning for Healthcare portal.
- **Pulse oximeters should not be used in isolation but as part of the bigger clinical picture.** Pulse oximetry is a useful **aid** in clinical decision-making, although not every child assessment will require measurement of oximetry or accurate recording of pulse. It should not be relied on alone to make or mandate a particular action; rather it supports clinical assessment and should not override clinical judgement. Guidance and resources are available: [RCPCH National guidance for the management of children with bronchiolitis \(2021\)](#) and [Healthier Together Bronchiolitis Pathway](#).
- NHS England and NHS Improvement are also working across teams and system partners with regard to multiplex testing (for coronavirus, RSV and influenza) and further information on this will be made available.

Treatment and discharge summary

- The patient's general practice should be informed, and their health record updated accordingly.

6. COVID-19 infection prevention control

Until further notice, the existing [COVID-19 IPC guidance](#) applies in healthcare settings and RCAS must follow this guidance.

Since January 2021 frontline healthcare staff have been eligible for the COVID-19 vaccination and the vast majority are now vaccinated. Healthcare staff should continue to follow further advice on vaccination and the IPC guidance as part of their duty of care towards their patients.

7. Service visibility

RCAS providers should ensure that the services are visible on the Directory of Services (DoS) to enable appropriate and timely referral.

8. Further support

Details of sources of further advice, guidance and training materials, including bespoke support from Academic Health Science Networks (AHSNs) and Patient Safety Collaboratives, are available on the [@home FutureNHS platform](#).

If you have any issues accessing this site or queries, please email england.home@nhs.net

9. Data and learning materials

Data

National flu and COVID-19 surveillance reports for the 2021 to 2022 season can be accessed [here](#).

The second document, National flu and COVID-19 surveillance graph, is published weekly at the above link and now includes more granular RSV prevalence data at regional level (slide 19)

These graphs are in addition to the National flu and COVID-19 surveillance report, also published weekly (the first document listed), which also includes SARI Watch data on RSV admissions, as well as data on daily visits within a network of EDs across England.

The syndromic surveillance systems provide information for public health action on the spread of illness across England, from primary, secondary and emergency care settings. These reports can be accessed [here](#).

Learning resources

Health Education England resources have also been developed to support the NHS workforce to manage the respiratory surge in children and can be accessed [here](#).

General principles and example pathways for assessment and management of children with respiratory symptoms: [here](#).