NATIONAL INSTITUTE FOR HEALTH AND   
CARE EXCELLENCE

Quality standards

Briefing paper: Acute respiratory infections and virtual wards

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1. Introduction

This briefing paper presents a structured overview of potential quality improvement areas for acute respiratory infections and virtual wards. It provides the working group with a basis for discussing and prioritising quality improvement areas for development into draft quality statements and measures for public consultation.

This briefing paper includes a brief description of the topic, a summary of each of the suggested quality improvement areas and supporting information. Recommendations selected from the key development source are included to help the group in considering potential statements and measures.

* 1. Development sources

The key development sources referenced in this briefing paper are:

* [Acute respiratory infection in over 16s: initial assessment and management](https://www.nice.org.uk/guidance/indevelopment/gid-ng10376/documents) (in development, publication expected October 2023)
* [Virtual wards platform technologies for acute respiratory infections](https://www.nice.org.uk/guidance/indevelopment/gid-hte10006) (in development, publication expected October 2023)
* [Pneumonia (community acquired): antimicrobial prescribing NICE guideline NG138](https://www.nice.org.uk/guidance/ng138) (2019). This guideline is being updated.
* [Cough (acute): antimicrobial prescribing NICE guideline NG120](https://www.nice.org.uk/guidance/ng120) (2019)
* [Chronic obstructive pulmonary disease in over 16s: diagnosis and management NICE guideline NG115](https://www.nice.org.uk/guidance/ng115) (2019). Reviewed in 2022 and no changes made.
* [Chronic obstructive pulmonary disease (acute exacerbation): antimicrobial prescribing](https://www.nice.org.uk/guidance/ng114) NICE guideline NG114 (2018). Last reviewed in 2019 and no changes made.
* [Emergency and acute medical care in over 16s: service delivery and organisation NICE guideline NG94](https://www.nice.org.uk/guidance/ng94) (2018).
* [Sore throat (acute): antimicrobial prescribing NICE guideline NG84](https://www.nice.org.uk/guidance/ng84) (2018). Last reviewed in 2019 and no changes made.
* [Sinusitis (acute): antimicrobial prescribing NICE guideline NG79](https://www.nice.org.uk/guidance/ng79) (2017). Last reviewed in 2019 and no changes made.
* [Antimicrobial stewardship: changing risk-related behaviours in the general population NICE guideline NG63](https://www.nice.org.uk/guidance/ng63) (2017).
* [Antimicrobial stewardship: systems and processes for effective antimicrobial medicine use. NICE guideline NG15](https://www.nice.org.uk/guidance/ng15) (2015). Last reviewed in 2018 and no changes made.
* [Pneumonia in adults: diagnosis and management NICE guideline CG191](https://www.nice.org.uk/guidance/cg191) (2014, updated 2022). This guideline is being updated.
* [Patient experience in adult NHS services: improving the experience of care for people using adult NHS services NICE guideline CG138](https://www.nice.org.uk/guidance/cg138) (2012, updated 2021).

1. Overview
   1. Focus of quality standard

This quality standard covers the assessment and referral of adults aged 16 and over with acute respiratory infection and the provision of virtual wards for adults with acute respiratory infection. It includes people with co-morbidities that may affect their risk such as chronic obstructive pulmonary disease. It does not include people with:

* known COVID-19
* respiratory infections acquired while inpatients in hospital
* a respiratory infection during end-of-life care
* aspiration pneumonia
* bronchiectasis or cystic fibrosis (as they should have plans in place to manage infections).
  1. Definition

Acute respiratory infections are a common cause of illness in adults caused by viruses or bacteria. They are often self-limiting and resolve without the need for treatment. However, people with more severe symptoms or those at risk of developing serious disease may require treatment. The treatment required depends on the nature of the infection.

Upper respiratory tract infections of the sinuses and throat include the common cold, sinusitis, tonsilitis and laryngitis. Lower respiratory tract infections of the airways and lungs include bronchitis, chest infection and pneumonia. Flu can be an upper or lower respiratory tract infection.

Lower respiratory tract infections tend to last longer and can be more serious.

* 1. Incidence and prevalence

[NHS England and UK Health Security Agency (UKHSA) Emergency Department Syndromic Surveillance reports](https://www.gov.uk/government/collections/syndromic-surveillance-systems-and-analyses) from 2020-2022 show that acute respiratory infections are one of the most common reasons for emergency attendance and admission.

[HES data](https://digital.nhs.uk/data-and-information/publications/statistical/hospital-admitted-patient-care-activity/2021-22) show 444,915 admissions for acute respiratory infection in 2021-22 (ICD‑10 codes J00 to J22).

[Getting it Right First Time (GIRFT) specialty respiratory report](https://gettingitrightfirsttime.co.uk/medical_specialties/respiratory/) (March 2021) states that respiratory problems in general were among the most common reasons for general practice consultations and for acute hospital admissions even prior to COVID-19 and that admissions are growing at around 13% annually. The report highlights that pneumonia is a common problem that affects between 0.5% and 1% of adults in the UK annually. It is a common reason for admission to hospital and for death, impacting on many trusts’ mortality figures. The number of admissions increases during the winter with an 80% variation between August and January.

[The UK Health Security Agency surveillance report for influenza and other seasonal respiratory viruses in the UK, winter 2022 to 2023](https://www.gov.uk/government/statistics/annual-flu-reports/surveillance-of-influenza-and-other-seasonal-respiratory-viruses-in-the-uk-winter-2022-to-2023#main-findings) highlighted that:

* Across the UK, influenza activity was concentrated in a relatively short period in the winter of 2022 to 2023, and relatively early within the typical seasonal range (week 48 2022 to week 3 2023).
* In primary care, consultation rates for influenza-like illness were above baseline intensity levels between week 51 2022 and week 1 2023; the first time since the start of the COVID-19 pandemic.
* Peak rates of 111 calls and emergency department attendances for influenza-like illness were higher than most previous seasons between weeks 49 of 2022 and week 1 2023.
* Peak hospitalisation rates in England were higher than previous influenza seasons and total hospitalisations in England were also higher than previous influenza seasons.
  1. Current service delivery and management

Since the COVID-19 pandemic, the levels of ARI (particularly pneumonia caused by COVID-19 infection) have increased. In response, the NHS has set up ARI hubs and ARI virtual wards to relieve pressure on other parts of the local healthcare system.

For people aged 16 and over with suspected ARI, initial consultations with the health system may occur remotely or face-to-face. Those with suspected ARI can be advised to remain at home for self-monitoring (with or without being prescribed antibiotics or antivirals), referred to ARI virtual wards for further monitoring, or admitted to hospital.

[NHS England’s delivery plan for recovering urgent and emergency care services](https://www.england.nhs.uk/publication/delivery-plan-for-recovering-urgent-and-emergency-care-services/) (Jan 2023) included the roll out of adult and paediatric Acute Respiratory Infection (ARI) Hubs to provide timely access to same day urgent assessment, preventing hospital attendance and ambulance conveyances. Patients are identified through remote consultation as requiring face-to-face assessment but not requiring hospitalisation. Some people with more complex needs may still need to be seen by their GP to ensure continuity of care. Face-to-face assessment may include diagnostics where available such as Point of Care Testing (POCT), to support clinical decision making and avoidable hospital attendance. Referral to Same Day Emergency Care services may also be utilised to support further diagnostics where required. This may be followed by advice, treatment, follow-up appointments or monitoring as required such as referral to an ARI virtual ward.

Virtual wards provide acute clinical care at home for a short duration (up to 14 days) as an alternative to care in hospital. Patients have their care reviewed daily by a consultant practitioner (including a nurse or allied health professional (AHP) consultant) or suitably trained GP, via a digital platform that allows for the remote monitoring of a patient’s condition and escalation to a multidisciplinary team. Depending on patient need and the pathway to be supported, a virtual ward may also require in-person care.

The [2022/23 priorities and operational planning guidance](https://www.england.nhs.uk/publication/2022-23-priorities-and-operational-planning-guidance/) set a target of 40–50 virtual ward beds per 100,000 people by December 2023 (not restricted to ARI).

See [appendix 1](#_Appendix_1:_Additional) for the associated care pathways identified in NHSE guidance.

1. Summary of suggestions
   1. Responses

In total 5 registered stakeholders and 3 expert members of the working group responded to the 2-week engagement exercise. The responses have been summarised in table 1 for further consideration.

Table 1 Summary of suggested quality improvement areas

| Area for improvement | Stakeholders |
| --- | --- |
| **Initial assessment**   * Signs, symptoms and severity scoring * Point of care testing | BTS, NHSE, expert  BTS, NHSE, PCRS, experts |
| **Prescribing antimicrobials**   * Strategy to prevent overprescribing * Antimicrobials for specific conditions | BTS  BTS, NHSE |
| **Referral criteria** | Experts |
| **Virtual wards: care and support**   * Access to tests and treatment * Supporting self-management * Escalation of care | NHSE, expert  BTS  NHSE, expert |
| **Virtual wards: service provision**   * Technology * Accessibility | ARN, experts  ARN, PCRS, NHSE, expert |
| **Additional areas**   * Staffing * Surveillance of circulating pathogens * Death on a virtual ward * Oxygen titration/weaning in the community * COPD discharge care bundle | RCN, PCRS  Expert  ARN  ARN  ARN |

Abbreviations:

* ARN, Association of Respiratory Nurses
* BTS, British Thoracic Society
* PCRS, Primary Care Respiratory Society
* NHSE, NHS England
* RCN, Royal College of Nursing

Full details of all the suggestions provided are given in [appendix 2](#_Appendix_2:_Suggestions) for information.

1. Suggested improvement areas

Section 4 presents a summary of the suggested improvement areas, with provisional recommendations that may support statement development and information on current UK practice.

* 1. Initial assessment

### Signs, symptoms and severity scoring

Stakeholders suggested that there is a need to improve the accurate recording of signs and symptoms to support diagnosis of acute respiratory infections, and in particular, upper respiratory tract infections.

A stakeholder suggested that severity scoring tools, such as National Early Warning Score (NEWS), Early Warning Score (EWS), mortality risk assessment using CRB65 or CURB65, and Pneumonia Severity Index (PSI), may be helpful for people with acute respiratory infection and it is important to clarify which should be used, with whom and in which setting.

#### NICE guidance

Initial assessment of adults with suspected acute respiratory infection will be included in the new NICE guideline on [acute respiratory infection in over 16s: initial assessment and management](https://www.nice.org.uk/guidance/indevelopment/gid-ng10376/documents) (in development).

[NICE’s guideline on pneumonia in adults: diagnosis and management](https://www.nice.org.uk/guidance/cg191) (CG191)

1.2.1 When a clinical diagnosis of community-acquired pneumonia is made in primary care, determine whether patients are at low, intermediate or high risk of death using the CRB65 score.

1.2.3 When a diagnosis of community-acquired pneumonia is made at presentation to hospital, determine whether patients are at low, intermediate or high risk of death using the CURB65 score.

[NICE’s quality standard on pneumonia in adults](https://www.nice.org.uk/guidance/qs110) (QS110)

Statement 1: Adults have a mortality risk assessment using the CRB65 score when they are diagnosed with community‑acquired pneumonia in primary care.

Statement 4: Adults have a mortality risk assessment using the CURB65 score when they are diagnosed with community acquired pneumonia in hospital.

### Point of care testing

Stakeholders suggested that there is wide variation in the use of point of care testing for people with acute respiratory infection. There are a range of platforms and tests available for microbiological testing and biomarkers that might inform diagnosis and severity. It needs to be clear which tests to use, including who should be tested, when and in which setting.

**NICE guidance**

Near patient microbiological and biomarker tests will be included in the new NICE guideline on [acute respiratory infection in over 16s: initial assessment and management](https://www.nice.org.uk/guidance/indevelopment/gid-ng10376/documents) (in development).

[NICE’s guideline on emergency and acute medical care in over 16s](https://www.nice.org.uk/guidance/ng94) (NG94)

1.1.2 Provide point-of-care C-reactive protein testing for people with suspected lower respiratory tract infections.

[NICE’s guideline on antimicrobial stewardship: systems and processes for effective antimicrobial medicine use](https://www.nice.org.uk/guidance/ng15) (NG15)

1.1.30 Consider point‑of‑care testing in primary care for patients with suspected lower respiratory tract infections as described in the NICE guideline on pneumonia in adults.

[NICE’s guideline on pneumonia in adults: diagnosis and management](https://www.nice.org.uk/guidance/cg191) (CG191)

1.1.1 For people presenting with symptoms of lower respiratory tract infection in primary care, consider a point of care C‑reactive protein test if after clinical assessment a diagnosis of pneumonia has not been made and it is not clear whether antibiotics should be prescribed. Use the results of the C‑reactive protein test to guide antibiotic prescribing in people without a clinical diagnosis of pneumonia as follows:

* Do not routinely offer antibiotic therapy if the C‑reactive protein concentration is less than 20 mg/litre.
* Consider a delayed antibiotic prescription (a prescription for use at a later date if symptoms worsen) if the C‑reactive protein concentration is between 20 mg/litre and 100 mg/litre.

Offer antibiotic therapy if the C‑reactive protein concentration is greater than 100 mg/litre.

1.2.6 Do not routinely offer microbiological tests to patients with low‑severity community‑acquired pneumonia.

1.2.7 For patients with moderate‑ or high‑severity community‑acquired pneumonia:

* take blood and sputum cultures and

consider pneumococcal and legionella urinary antigen tests.

### Issues for consideration

**For discussion:**

* Is there significant variation in current practice?
* What is the priority for improvement?
* What is the key action that will lead to improvement?
* Could we focus on a specific population or setting?

Can we develop a specific, measurable statement?

**For decision:**

* Should this area be prioritised for inclusion in the quality standard?
  1. Prescribing antimicrobials

### Preventing antibiotic overprescribing

A stakeholder suggested that it is important to have a strategy and approach to avoid unnecessary prescribing of antibiotics in people with acute respiratory infection with and without comorbid lung disease, in face to face and remote consultations. This will improve antimicrobial stewardship.

**NICE guidance**

[NICE’s guideline on antimicrobial stewardship: systems and processes for effective antimicrobial medicine use](https://www.nice.org.uk/guidance/ng15) (NG15)

1.1.31 Prescribers should take time to discuss with the patient and/or their family members or carers (as appropriate):

* the likely nature of the condition
* why prescribing an antimicrobial may not be the best option
* alternative options to prescribing an antimicrobial
* their views on antimicrobials, taking into account their priorities or concerns for their current illness and whether they want or expect an antimicrobial
* the benefits and harms of immediate antimicrobial prescribing
* what they should do if their condition deteriorates (safety netting advice) or they have problems as a result of treatment

whether they need any written information about their medicines and any possible outcomes.

1.1.33 Do not issue an immediate prescription for an antimicrobial to a patient who is likely to have a self‑limiting condition.

1.1.34 If immediate antimicrobial prescribing is not the most appropriate option, discuss with the patient and/or their family members or carers (as appropriate) other options such as:

* self‑care with over‑the‑counter preparations
* back‑up (delayed) prescribing
* other non‑pharmacological interventions, for example, draining the site of infection.

#### Current quality statements

[NICE’s quality standard on antimicrobial stewardship](https://www.nice.org.uk/guidance/qs121) (QS121)

Statement 1: People with a self-limiting condition, as assessed by a primary care prescriber, receive advice about self‑management and adverse consequences of overusing antimicrobials.

Statement 2: Prescribers in primary care can use back‑up (delayed) antimicrobial prescribing when there is clinical uncertainty about whether a condition is self‑limiting or is likely to deteriorate.

### Antimicrobials for specific conditions

A stakeholder suggested that there is a need to improve the prescription of antivirals in the community for people diagnosed with influenza to avoid hospital admissions and further transmission of the infection.

It was also suggested that there is a need to improve the prescription of antimicrobials based on test result and clinical assessment for upper respiratory tract infections.

It was suggested that a cross reference to the current pneumonia quality standard (QS110) is needed, including statement 2 on antibiotic therapy for diagnosed low-severity community-acquired pneumonia which will apply in ARI hubs.

#### NICE guidance

Prescribing antimicrobials as part of the initial assessment for people with acute respiratory infection will be included in the new NICE guideline on [acute respiratory infection in over 16s: initial assessment and management](https://www.nice.org.uk/guidance/indevelopment/gid-ng10376/documents) (in development).

[NICE’s guideline on pneumonia (community acquired): antimicrobial prescribing](https://www.nice.org.uk/guidance/ng138) (NG138)

1.1.1 Offer an antibiotic(s) for adults, young people and children with community-acquired pneumonia. When choosing an antibiotic (see the recommendations on choice of antibiotic), take account of:

* the severity assessment for adults, as set out in table 1 [amended 2021]
* the severity of symptoms or signs for children and young people, based on clinical judgement
* the risk of developing complications, for example, if the person has relevant comorbidity such as severe lung disease or immunosuppression
* local antimicrobial resistance and surveillance data (such as flu and Mycoplasma pneumoniae infection rates)
* recent antibiotic use
* recent microbiological results, including colonisation with multidrug-resistant bacteria.

1.1.2 Start antibiotic treatment as soon as possible after establishing a diagnosis of community-acquired pneumonia, and certainly within 4 hours (within 1 hour if the person has suspected sepsis and meets any of the high-risk criteria for this – see the NICE guideline on sepsis).

[NICE’s guideline on cough (acute): antimicrobial prescribing](https://www.nice.org.uk/guidance/ng120) (NG120)

1.1.14 For people with an acute cough who are identified as systemically very unwell (ideally at a face‑to‑face clinical examination), offer an immediate antibiotic prescription (for choice of antibiotic, see recommendation 1.3.1).

1.1.15 Be aware that people with an acute cough may be at higher risk of complications if they:

* have a pre-existing comorbidity, such as significant heart, lung, renal, liver or neuromuscular disease, immunosuppression or cystic fibrosis
* are older than 65 years with 2 or more of the following criteria, or older than 80 years with 1 or more of the following criteria:
* hospitalisation in previous year
* type 1 or type 2 diabetes
* history of congestive heart failure
* current use of oral corticosteroids.

1.1.16 For people with an acute cough who are identified as at higher risk of complications (ideally at a face‑to‑face clinical examination), consider:

* an immediate antibiotic prescription (for choice of antibiotic, see recommendation 1.3.1) or
* a back-up antibiotic prescription.

[NICE’s guideline on sore throat (acute): antimicrobial prescribing](https://www.nice.org.uk/guidance/ng84) (NG84)

People who are most likely to benefit from an antibiotic (FeverPAIN score of 4 or 5, or Centor score of 3 or 4)

1.1.10 Consider an immediate antibiotic prescription (see recommendation 1.3.1 for choice of antibiotic), or a back-up antibiotic prescription with advice (see recommendation 1.1.9), taking account of:

* the unlikely event of complications if antibiotics are withheld
* possible adverse effects, particularly diarrhoea and nausea.

People who are systemically very unwell, have symptoms and signs of a more serious illness or condition, or are at high-risk of complications

1.1.12 Offer an immediate antibiotic prescription (see recommendation 1.3.1 for choice of antibiotic) with advice (see recommendation 1.1.11).

[NICE’s guideline on sinusitis (acute): antimicrobial prescribing](https://www.nice.org.uk/guidance/ng79) (NG79)

People presenting at any time who are systemically very unwell, have symptoms and signs of a more serious illness or condition, or are at high risk of complications

1.1.8 Offer an immediate antibiotic prescription (see the recommendations on choice of antibiotic).

[NICE’s technology appraisal on amantadine, oseltamivir and zanamivir for the treatment of influenza](https://www.nice.org.uk/guidance/ta168) (TA168)

This guidance does not cover the circumstances of a pandemic, impending pandemic, or a widespread epidemic of a new strain of influenza to which there is little or no community resistance.

1.1 Oseltamivir and zanamivir are recommended, within their marketing authorisations, for the treatment of influenza in adults and children if all the following circumstances apply:

* national surveillance schemes indicate that influenza virus A or B is circulating
* the person is in an 'at-risk' group as defined in 1.2
* the person presents with an influenza-like illness and can start treatment within 48 hours (or within 36 hours for zanamivir treatment in children) of the onset of symptoms as per licensed indications.

1.2 For the purpose of this guidance, people 'at risk' are defined as those who have one of more of the following:

* chronic respiratory disease (including asthma and chronic obstructive pulmonary disease)
* chronic heart disease
* chronic renal disease
* chronic liver disease
* chronic neurological conditions
* diabetes mellitus.

People who are aged 65 years or older and people who might be immunosuppressed are also defined as 'at-risk' for the purpose of this guidance.

1.4 During localised outbreaks of influenza-like illness (outside the periods when national surveillance indicates that influenza virus is circulating in the community), oseltamivir and zanamivir may be offered for the treatment of influenza in 'at-risk' people who live in long-term residential or nursing homes. However, these treatments should be offered only if there is a high level of certainty that the causative agent in a localised outbreak is influenza (usually based on virological evidence of influenza infection in the initial case).

#### Current quality statements

[NICE’s quality standard on pneumonia in adults](https://www.nice.org.uk/guidance/qs110) (QS110) Statement 2: Adults with low‑severity community‑acquired pneumonia are prescribed a 5‑day course of a single antibiotic.

### Issues for consideration

**For discussion:**

* Is there significant variation in current practice?
* What is the priority for improvement?
* What is the key action that will lead to improvement?
* Could we focus on a specific population or setting?
* Can we develop a specific, measurable statement?

**For decision:**

* Should this area be prioritised for inclusion in the quality standard?
  1. Referral criteria

A stakeholder suggested that a variety of different criteria are currently used in ARI hubs to determine referral to secondary care leading to variation in care. Clarifying routes into the variety of treatment and recovery options at home, in hospital and other specialised units was also highlighted.

#### NHS England guidance

[NHSE Guidance note: Acute respiratory infection virtual ward](https://www.england.nhs.uk/publication/guidance-note-acute-respiratory-infection-virtual-ward/)

The ARI virtual ward should be available as an option for registered professionals to refer adults (aged 16 or over) who have a primary diagnosis of suspected/confirmed respiratory infection (including COVID-19) and, are stable or have an improving clinical trajectory but require ongoing monitoring. Services may need to develop their own admission and discharge criteria for acute level care in line with their population needs, available workforce and competencies. Subject to a clinical judgement, the following criteria may support identification of patients suitable for admission to an ARI virtual ward.

Inclusion criteria

Patients with the following clinical features may be suitable:

* suspected or confirmed respiratory infection including COVID-19
* oxygen saturations of 95–100%, NEWS2 <3, clinically stable and/or improving
* no significant respiratory co-morbidities.

Patients with the following clinical features may also be considered, where clinically appropriate:

* saturations of 93–94% and/or NEWS2 3 or 4 with improving clinical
* trajectories (in patients being discharged from hospital-based acute care)
* saturations of 88–94% (or baseline) if known chronic hypoxia, eg chronic obstructive pulmonary disease (COPD)
* frail patients should not be excluded but dedicated frailty services, eg frailty virtual wards, may be more appropriate where these exist locally
* pregnant women with saturations >94% should not be excluded and early maternity involvement should be sought for specific advice around management of suspected ARI including COVID-19 in pregnancy.

Exclusion criteria

Patients with the following clinical criteria should be excluded:

* unstable or worsening clinical trajectory, eg saturations <93% unless
* confirmed baseline and/or NEWS2 ≥5
* severe or life-threatening presentations of pneumonia, asthma or COPD
* suspected sepsis
* chest pain that is concerning for a serious cause requiring immediate hospital transfer, eg acute coronary syndrome
* pregnant women with saturations of ≤94%.

Clinical judgement remains paramount for all assessments, particularly for patients at higher risk of serious illness, with a learning disability or living with serious mental illness.

#### NICE guidance

Current NICE guidelines specifying criteria for hospital admission are unlikely to be directly transferable as referral criteria for virtual wards due to variation in service characteristics.

Recommendations on referral to hospital when symptoms or signs suggest serious illness are included in NICE antimicrobial prescribing guidelines on:

* [Community acquired pneumonia](https://www.nice.org.uk/guidance/ng138)
* [Cough](https://www.nice.org.uk/guidance/ng120)
* [Exacerbation of COPD](https://www.nice.org.uk/guidance/ng114)
* [Sore throat](https://www.nice.org.uk/guidance/ng84)
* [Sinusitis](https://www.nice.org.uk/guidance/ng79)

Potential factors to consider when deciding where to treat people with COPD are included on [NICE’s guideline on chronic obstructive pulmonary disease](https://www.nice.org.uk/guidance/ng115). It notes that there are currently insufficient data to make firm recommendations about which people with COPD with an exacerbation are most suitable for hospital-at-home or early discharge. Selection should depend on the resources available, and absence of factors associated with a worse prognosis (for example, acidosis).

[NICE’s guideline on pneumonia in adults](https://www.nice.org.uk/guidance/cg191) recommends:

1.2.2 [In primary care] Use clinical judgement in conjunction with the CRB65 score to inform decisions about whether patients need hospital assessment as follows:

* consider home‑based care for patients with a CRB65 score of 0
* consider hospital assessment for all other patients, particularly those with a CRB65 score of 2 or more.

1.2.4 [In hospital] Use clinical judgement in conjunction with the CURB65 score to guide the management of community‑acquired pneumonia, as follows:

* consider home‑based care for patients with a CURB65 score of 0 or 1
* consider hospital‑based care for patients with a CURB65 score of 2 or more
* consider intensive care assessment for patients with a CURB65 score of 3 or more.

### Issues for consideration

**For discussion:**

* Is there significant variation in current practice?
* What is the priority for improvement?
* What is the key action that will lead to improvement?
* Could we focus on a specific population or setting?
* Can we develop a specific, measurable statement?

**For decision:**

* Should this area be prioritised for inclusion in the quality standard?
  1. Virtual wards: care and support

### Access to tests and treatments

It was emphasised that people admitted to a virtual ward and their carers need to be reassured that they have access to treatment, tests or investigations quickly.

It was suggested that a cross reference to the current pneumonia quality standard (QS110) is needed, including statement 3 on chest x-ray and diagnosis within 4 hours of hospital presentation and statement 5 on antibiotic therapy within 4 hours in hospital as these will apply in a virtual ward.

#### NICE guidance

Please note that due to different levels of monitoring and escalation, NICE recommendations made for a hospital setting may not be appropriate or feasible for virtual wards.

There are no specific NICE recommendations on the management of people with acute respiratory infections in virtual wards.

[NICE’s guideline on pneumonia in adults: diagnosis and management](https://www.nice.org.uk/guidance/cg191) (CG191)

1.2.8 Put in place processes to allow diagnosis (including X‑rays) and treatment of community‑acquired pneumonia within 4 hours of presentation to hospital.

[NICE’s guideline on patient experience in adult NHS services](https://www.nice.org.uk/guidance/cg138) (CG138)

1.4.6 Give the patient (and their family members and/or carers if appropriate) information about what to do and who to contact in different situations, such as 'out of hours' or in an emergency.

#### Current quality statements

[NICE’s quality standard on pneumonia in adults](https://www.nice.org.uk/guidance/qs110) (QS110)

Statement 3: Adults with suspected community‑acquired pneumonia in hospital have a chest X‑ray and receive a diagnosis within 4 hours of presentation.

Statement 5: Adults with community‑acquired pneumonia who are admitted to hospital start antibiotic therapy within 4 hours of presentation.

### Supporting self-management

A stakeholder suggested that there is a need to improve education for people with exacerbations of chronic lung disease who are being managed on a virtual ward so that they can self-manage their condition. An example of advising people to only take steroids if they are wheezy and tight-chested was highlighted. It was also suggested that improving self-management on a virtual ward is important for all people admitted.

#### NICE guidance

There are no specific NICE recommendations on self-management on a virtual ward for people with exacerbations of chronic respiratory conditions associated with an acute respiratory infection.

[NICE’s guideline on patient experience in adult NHS services](https://www.nice.org.uk/guidance/cg138) (CG138)

1.5.11 Give the patient information, and the support they need to make use of the information, in order to promote their active participation in care and self-management.

#### Other guidance

[NHSE/GIRFT Making the most of virtual wards, including Hospital at Home: Practical guidance for clinicians to maximise use of virtual wards for the benefit of patients](https://gettingitrightfirsttime.co.uk/new-summary-guide-supports-nhs-ambition-to-increase-the-use-of-virtual-wards/)

After admission to virtual ward with COPD or asthma exacerbation, optimal management includes:

* Advice about smoking cessation, support, prescription and referral
* Ensuring inhaler technique is optimal
* Education about breathing techniques and chest clearance
* Self-management education and use of rescue pack
* Advice where to source further written information
* Referral to local self-help groups.

### Escalation of care

It was suggested that it is important for virtual wards to have clear processes to ensure appropriate management, early recognition of deteriorating symptoms and appropriate escalation of care (including out of hours). It was emphasised that people admitted to a virtual ward and their carers need to be reassured that any changes will be responded to quickly.

#### NHS England guidance

[NHSE Guidance note: Acute respiratory infection virtual ward](https://www.england.nhs.uk/publication/guidance-note-acute-respiratory-infection-virtual-ward/)

To provide a safe and robust virtual ward staffing is required for a minimum of 12 hours a day (8am–8pm), seven days a week, with locally arranged provision for out of hours cover, enabling flexibility of service provision as determined by local need.

Clear pathways for referral and escalation should be developed collaboratively with SDEC, emergency department (ED), primary care, community health services, NHS 111/999 and UCR.

Stage 3: Admission

* Patients being admitted to an ARI virtual ward will agree a patient-held personalised escalation and discharge plan, including monitoring arrangements.
* The patient should additionally be provided with, as a minimum:

‒ a telephone number to call for advice or support between 8am and 8pm,

seven days a week

‒ instructions on who to contact outside these hours.

Stage 5: Self-escalation

* The patient should self-escalate according to the severity of their deterioration. Clear information around escalation should be provided at admission and in supporting patient information (see example patient information leaflet below). Escalation may include calling the ARI virtual ward telephone number provided, calling 999 or attending their nearest ED.

#### NICE guidance

Please note that due to different levels of monitoring and escalation, NICE recommendations made for a hospital setting may not be appropriate or feasible for virtual wards.

There are no specific NICE recommendations on the management of people with acute respiratory infections in virtual wards.

[NICE’s guideline on patient experience in adult NHS services](https://www.nice.org.uk/guidance/cg138) (CG138)

1.4.6 Give the patient (and their family members and/or carers if appropriate) information about what to do and who to contact in different situations, such as 'out of hours' or in an emergency.

### Issues for consideration

**For discussion:**

* Do we have sufficient guidance to support a statement?
* Is there significant variation in current practice?
* What is the priority for improvement?
* What is the key action that will lead to improvement?
* Could we focus on a specific population or setting?
* Can we develop a specific, measurable statement?

**For decision:**

* Should this area be prioritised for inclusion in the quality standard?
  1. Virtual wards: service provision

### Technology

A stakeholder suggested that as there are so many different platforms available for virtual wards it would be helpful to highlight requirements for the most cost-effective physiological monitoring system for people on a virtual ward with acute respiratory infection.

It was also suggested that digital technology should be used to support the wider use of remote consultations within virtual wards including video calls, messaging, email and telephone calls. This will help to reduce the carbon footprint in healthcare.

The importance of ensuring that people admitted to a virtual ward and their carers are supported to use the technology was also highlighted. This should include what to do when things go wrong, or the technology fails in some way.

#### NICE guidance

[NICE’s early value assessment of virtual wards platform technologies for acute respiratory infections](https://www.nice.org.uk/guidance/indevelopment/gid-hte10006) (in development) will outline key considerations and characteristics of the digital platforms.

[NICE’s guideline on patient experience in adult NHS services](https://www.nice.org.uk/guidance/cg138) (CG138)

1.5.17 Give the patient (and/or their family members and carers) information to enable them to use any medicines and equipment correctly. Ensure that the patient and their family members and carers feel adequately informed, prepared and supported to use medicines and equipment and to carry out self-care and self-management.

### Accessibility

Stakeholders highlighted the importance of ensuring that virtual wards are widely accessible to people regardless of their age, socioeconomic status, disability etc. There was a particular concern about people who are digitally excluded because they don’t have their own device such as a smartphone. It was suggested that devices and training should be provided so that people can benefit from the virtual ward. Additional support may also be needed to ensure people are not excluded from a virtual ward due to language, cultural issues or a disability such as a learning disability.

It will also be important to ensure that mobile services are available in rural areas to avoid geographical inequalities.

#### NICE guidance

[NICE’s guideline on patient experience in adult NHS services](https://www.nice.org.uk/guidance/cg138) (CG138)

1.1.2 Ensure that factors such as physical or learning disabilities, sight, speech or hearing problems and difficulties with reading, understanding or speaking English are addressed so that the patient is able to participate as fully as possible in consultations and care.

#### Other guidance

[NHSE Guidance note: Acute respiratory infection virtual ward](https://www.england.nhs.uk/publication/guidance-note-acute-respiratory-infection-virtual-ward/)

The patient should additionally be provided with, as a minimum:

* loan of any remote monitoring devices/equipment (which meet relevant ISO and CE approvals), supported by relevant instructions on use.

[NHSE/GIRFT Making the most of virtual wards, including Hospital at Home: Practical guidance for clinicians to maximise use of virtual wards for the benefit of patients](https://gettingitrightfirsttime.co.uk/new-summary-guide-supports-nhs-ambition-to-increase-the-use-of-virtual-wards/)

Reducing health inequalities

* Despite COPD being more common in deprived communities COPD services are often less well utilised in these areas, resulting in healthcare and health inequalities.
* ARI VW Leads should promote equity of access to VW services, taking account of known inequalities and likely prevalence to monitor their ARI VW population to ensure it is representative of the local community.

Issues for consideration

**For discussion:**

* Do we have sufficient guidance to support a statement?
* Is there significant variation in current practice?
* What is the priority for improvement?
* What is the key action that will lead to improvement?
* Could we focus on a specific population or setting?
* Can we develop a specific, measurable statement?

**For decision:**

* Should this area be prioritised for inclusion in the quality standard?
  1. Additional areas

### Summary of suggestions

The improvement areas below were suggested as part of the stakeholder engagement exercise. However, they were felt to be either unsuitable for development as quality statements, outside the remit of this particular quality standard referral or need further discussion to establish potential for statement development.

There will be an opportunity for to discuss these areas at the end of the working group.

Table 2 Summary of information available for additional areas

| Suggested area for improvement | Within remit of NICE QS | In scope | Guideline recs | Relevant  existing QS |
| --- | --- | --- | --- | --- |
| Staffing and training | No | No | No | No |
| Surveillance of circulating pathogens | No | Yes | No | No |
| Death on a virtual ward | Yes | Yes | No | No |
| Oxygen in the community | Yes | Yes | No | No |
| COPD hospital discharge care bundle | Yes | Yes | Yes | Yes |

### Staffing and training

Stakeholders highlighted that it is a priority to ensure that respiratory-experienced staff are involved in service design and delivery. This should include having a pneumonia lead and a trained workforce to support respiratory infections including pneumonia. It is important that staff who are triaging people to an ARI service are appropriately trained.

Quality statements focus on actions that demonstrate high quality care or support, not the training or staffing that enables the actions to take place. The group should consider which elements of care and support would be improved through staffing and training.

### Surveillance of circulating pathogens

It was suggested that systems and processes are needed to support surveillance and clinician awareness of circulating pathogens. Currently a lack of awareness can lead to unnecessary treatment and escalation of care.

Quality standards focus on areas for quality improvement that can be addressed by local commissioners. We assume surveillance would need to be across a larger area to be effective.

### Death on a virtual ward

It was suggested that national guidance on managing death on a virtual ward is needed, particularly in relation to certifying a death. This area has not been progressed because additional guidance is outside of the remit of quality standards. Suggestions for additional guidance will be passed on to the NICE centre for guidelines.

### Oxygen in the community

Evidence was provided from a small study on the provision of oxygen therapy at home. Quality standards do not evaluate new evidence. This information will be passed on to the NICE centre for guidelines.

### COPD hospital discharge care bundle

It was suggested that the British Thoracic Society COPD hospital discharge bundle should be extended to include those people managed on a virtual ward. It was suggested that the national asthma and COPD audit programme should be extended to include virtual wards to collect data on the discharge care bundle.

NICE’s quality standard on chronic obstructive pulmonary disease (QS10) is currently being updated to include a new statement on hospital discharge care bundle. We have asked them to consider if virtual wards can be included.

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# Appendix 1: Additional information

Figure 1: Illustrative example of acute respiratory infection pathway ([NHSE combined adult and paediatric acute respiratory infection (ARI) hubs (previously RCAS hubs)](https://www.england.nhs.uk/publication/going-further-on-our-winter-resilience-plans/))

A flowchart of a patient

Description automatically generated

Figure 2: Acute respiratory infection virtual ward pathway ([NHSE guidance on acute respiratory infection virtual ward](https://www.england.nhs.uk/publication/guidance-note-acute-respiratory-infection-virtual-ward/))

A diagram of a patient's condition

Description automatically generated

# Appendix 2: Suggestions from stakeholders

| **ID** | **Theme** | **Stakeholder** | **Suggestion** | **Why is this a key area for quality improvement?** |
| --- | --- | --- | --- | --- |
| 1 | Initial assessment | British Thoracic Society | Key area for quality improvement 3 | Better diagnosis of upper respiratory tract infections delivering the appropriate antimicrobials based on test result and clinical assessment. |
| 2 | Initial assessment | Expert 1 | Key area for quality improvement 1 | Acute Respiratory Infection  Accurate set of signs and symptoms for the diagnosis and treatment of aRI – needs to include infection prevention |
| 3 | Initial assessment | Expert 2 | Severity scoring for patients with acute respiratory infection | Scores such as NEWS, EWS, CURB65, PSI and PSI may all inform outcome. Do severity scores help in this setting, and which would be preferred |
| 4 | Initial assessment | NHSE | We would suggest that such guidance cross references the existing pneumonia Quality Standard – Specifically statements 1-2 would apply to ARI hubs and 3-5 to virtual wards. | Statement 1 Adults have a mortality risk assessment using the CRB65 score when they are diagnosed with community acquired pneumonia in primary care.  Statement 2 Adults with low severity community acquired pneumonia are prescribed a 5 day course of a single antibiotic.  Statement 3 Adults with suspected community acquired pneumonia in hospital have a chest X ray and receive a diagnosis within 4 hours of presentation.  Statement 4 Adults have a mortality risk assessment using the CURB65 score when they are diagnosed with community acquired pneumonia in hospital.  Statement 5 Adults with community acquired pneumonia who are admitted to hospital start antibiotic therapy within 4 hours of presentation.  Supporting information: British Thoracic Society guidance on Community Acquired Pneumonia |
| 5 | Initial assessment | British Thoracic Society | Key area for quality improvement 5 | Important to ensure that the programme reaches out to different ethnic, cultural and socioeconomic backgrounds using translated documents and social prescribing. Near patient rapid testing employed in the pathway of care maybe more beneficial to this process. |
| 6 | Initial assessment | Expert 1 | Key area for quality improvement 2 | Access to appropriate tests and treatment/treatment in a way that is of most benefit to the patient – includes receipt of medication, monitoring and evaluation, access if there are changes, etc. |
| 7 | Initial assessment | Expert 2 | Point of care testing in patients with ARI | Numerous platforms and tests are commercially available, for both microbiological testing and biomarkers that might inform severity. There is wide variation in platforms used. |
| 8 | Initial assessment | Expert 3 | Key area for quality improvement 3 | QS relating to criteria for use of testing: Infl A&B & multiplex testing (Patient criteria, setting). |
| 9 | Initial assessment | NHSE | Point of care testing in ARI hubs | Suggestion that point of care testing is considered, potentially with a statement to ensure the reproducibility and reliability of any near patient test used in diagnosing acute respiratory infections. |
| 10 | Initial assessment | Primary Care Respiratory Society | Point of care testing availability | To enable rapid identification of infecting pathogen (e.g. SARS-CoV-2 or influenza)  Supporting information: Experience of setting up an ARI service in Norfolk and Waveney |
| 11 | Prescribing antimicrobials | British Thoracic Society | Key area for quality improvement 2 | Having a strategy and approach to avoid unnecessary antibiotic prescriptions in both the healthy population and those with underlying lung disease when assessed either face to face and remotely. This will improve antimicrobial stewardship. |
| 12 | Prescribing antimicrobials | British Thoracic Society | Key area for quality improvement 1 | Improving prescription of antivirals in the community in those diagnosed positively with influenza and ensuring hospital admission avoided hence preventing further nosocomial infection transmission. |
| 13 | Prescribing antimicrobials | British Thoracic Society | Key area for quality improvement 3 | Better diagnosis of upper respiratory tract infections delivering the appropriate antimicrobials based on test result and clinical assessment. |
| 14 | Prescribing antimicrobials | NHSE | We would suggest that such guidance cross references the existing pneumonia Quality Standard – Specifically statements 1-2 would apply to ARI hubs and 3-5 to virtual wards. | Statement 1 Adults have a mortality risk assessment using the CRB65 score when they are diagnosed with community acquired pneumonia in primary care.  Statement 2 Adults with low severity community acquired pneumonia are prescribed a 5 day course of a single antibiotic.  Statement 3 Adults with suspected community acquired pneumonia in hospital have a chest X ray and receive a diagnosis within 4 hours of presentation.  Statement 4 Adults have a mortality risk assessment using the CURB65 score when they are diagnosed with community acquired pneumonia in hospital.  Statement 5 Adults with community acquired pneumonia who are admitted to hospital start antibiotic therapy within 4 hours of presentation.  Supporting information: British Thoracic Society guidance on Community Acquired Pneumonia. |
| 15 | Referral criteria | Expert 1 | Key area for quality improvement 3 | Treatment and Recovery options depending upon the setting. For example, at home (supported physically or virtually), in a specialised unit, as an in-patient, etc. |
| 16 | Referral criteria | Expert 2 | Criteria for referral to secondary care | In patients on VW or reviewed in ARI hubs, a variety of different criteria are used to determine referral to ED / hot clinics. |
| 17 | Virtual wards: care and support | Expert 1 | Key area for quality improvement 4 | Virtual wards:  Clinical governance is essential:  • Formalised pathways to ensure early recognition of deteriorating symptoms supported by a process to manage in/out of hours requirements  • Appropriate escalation processes  • A process to ensure patients are safe and the process is effective if the virtual ward is being provided by more than one provider, is being provided to anyone where protected or defined characteristics are involved, etc. |
| 18 | Virtual wards: care and support | Expert 1 | Key area for quality improvement 2 | Virtual wards:  Patients and their carers (along with staff) need to trust the technology/system/process:  • That the data is getting through and is being reviewed regularly and that there are mechanism to ensure any changes are picked up quickly, patients will have access to treatment  • That there is the option for a chat/face-to-face discussion when it is needed or when patients feel they need support  • That they can access the medication, treatment, tests etc, that they need quickly for example if things change, if they feel worse/better, etc. and that they will not be disadvantaged by being treated virtually |
| 19 | Virtual wards: care and support | NHSE | We would suggest that such guidance cross references the existing pneumonia Quality Standard – Specifically statements 1-2 would apply to ARI hubs and 3-5 to virtual wards. | Statement 1 Adults have a mortality risk assessment using the CRB65 score when they are diagnosed with community acquired pneumonia in primary care.  Statement 2 Adults with low severity community acquired pneumonia are prescribed a 5 day course of a single antibiotic.  Statement 3 Adults with suspected community acquired pneumonia in hospital have a chest X ray and receive a diagnosis within 4 hours of presentation.  Statement 4 Adults have a mortality risk assessment using the CURB65 score when they are diagnosed with community acquired pneumonia in hospital.  Statement 5 Adults with community acquired pneumonia who are admitted to hospital start antibiotic therapy within 4 hours of presentation.  Supporting information: British Thoracic Society guidance on Community Acquired Pneumonia |
| 20 | Virtual wards: care and support | British Thoracic Society | Key area for quality improvement 4 | Improving education for patients with exacerbations of chronic lung diseases so they are reassured when managed in a virtual ward setting and can engage self management accordingly. Steroids should be only taken if wheezy and tight-chested. |
| 21 | Virtual wards: care and support | Association of Respiratory Nurses | Visibility of Virtual Wards within systems - partnership working. | Effective communication and information sharing across the primary and secondary care interface can be poor.  Collaboration and integration of access to electronic patient records across primary and secondary care improves two-way sharing of information, adding value to clinical decision-making, safety and patient experience.  See Royal College of Physicians Case Study demonstrating integrated care can reduce duplication, supports medicine reconciliation and care pathways. Reducing time spent on administration, whilst improving communication and patient safety. <https://www.rcplondon.ac.uk/file/5580/download>    See NICE Chapter 33 Integrated patient information systems supporting collaboration and integrations or EPRs. <https://www.nice.org.uk/guidance/ng94/evidence/33.integrated-patient-information-systems-pdf-172397464672> |
| 22 | Virtual wards: service provision | Primary Care Respiratory service | Integration into overall respiratory service provision | Experience of setting up an ARI service in Norfolk and Waveney |
| 23 | Virtual wards: service provision | Royal college of nursing | Key area for quality improvement 2  [Virtual Ward Platform Technologies for acute respiratory infections](https://www.nice.org.uk/guidance/indevelopment/gid-hte10006) | We hear from our members that there is a need for virtual services and there needs to be investment in both the workforce, the education as well as technology. A joined up approach is essential with existing services across health and social care. There also is a need to be an inclusive approach as many respiratory services already have ‘virtual’ elements and this needs recognising.  An example of this is Same day emergency care pathways for respiratory infections and also Respiratory early discharge services. There will be learning from these services that will be transferable. |
| 24 | Virtual wards: service provision | Association of Respiratory Nurses | Reducing the carbon footprint – remoted consultations within virtual wards | Encourage, whilst considering safety, the wider use of remote consultations within virtual wards; video calling, messaging services, email and telephone calls.  Remote consultations can reduce travelling to patients homes, hence car emissions.  Improving digital technology can aid reducing the carbon footprint in healthcare whilst also supporting delivery of a Net Zero NHS.  See [Delivering a ‘Net Zero’ National Health Service](https://www.england.nhs.uk/greenernhs/a-net-zero-nhs/)  [NHSE Video Consultations in Secondary care – the benefits](https://www.england.nhs.uk/outpatient-transformation-programme/video-consultations-in-secondary-care/) |
| 25 | Virtual wards: service provision | Expert 1 | Key area for quality improvement 1 | Virtual wards:  It is essential for both patients and staff that there are support mechanisms in place which includes physical and emotional support and understanding. Patients and staff will need to be trained in both the process and the use of the technology. Particular support may be needed for those living alone or those caring for patients using virtual wards. This support may differ between paid/professional carers and unpaid carers and family members.  Staff and patients will need not only to understand how the technology works but also what to do when things go wrong/the technology fails or is compromised in some way. |
| 26 | Virtual wards: service provision | Expert 2 | Most cost effective physiological monitoring system for patients on VW | Organisations are individually commissioning a variety of different platforms for this use. A recommendation on the most effective suite of monitoring for VW would be preferred. |
| 27 |  | Association of Respiratory Nurses | Technology enablement for virtual ward users - reducing inequalities and barriers for service users. | Access to online and digital solutions for users vary, often having no digital access or device,. e.g. smart phones / digital solution for all service users eligible for virtual ward care.  Access to digital enablement regardless of age / socioeconomic status.  Equitable technology access including remote monitoring on Virtual Wards.  Empower patient engagement with technology and improve self-management / patient satisfaction.  See [GIRFT Principles for virtual wards](https://gettingitrightfirsttime.co.uk/new-summary-guide-supports-nhs-ambition-to-increase-the-use-of-virtual-wards/).  See [The King’s Fund Policy Brief – Ensuring digitally enabled health care is equitable and effective for all.](https://www.kingsfund.org.uk/publications/ensuring-digitally-enabled-health-care-equitable-effective-for-all)  See Equality Act 2010 – Age Discrimination. https://www.legislation.gov.uk/ukpga/2010/15/pdfs/ukpga\_20100015\_en.pdf |
| 28 | Virtual wards: service provision | Expert 1 | Key area for quality improvement 3 | Virtual wards:  Equality will be key:  • Equality issues such as language or cultural differences will play a key role in selecting who is able to be treated using a virtual ward, what additional support may be required  • Similarly how will those who are digitally excluded be involved – will they be trained/supported or will they be excluded from the virtual ward process – how will this disadvantage or advantage them. This must be considered. |
| 29 | Virtual wards: service provision | NHSE | Key area for quality improvement 1 | We strongly suggest that learning disability should be a group of focus in the quality standard. Rationale includes:  - Of the people in the 2021 LeDeR dateset who had respiratory illnesses listed as a long term condition, 17% of their deaths were ‘avoidable’.  - from LeDeR: people with a learning disability disability die, on average, over 20 years younger than the general population  - 49% of deaths of people with an intellectual disability are due to avoidable causes compared with 22% in the general population.  - Of the avoidable deaths of people with an intellectual disability, 17% are due to respiratory conditions.  - People with an intellectual disability from minority ethnic groups are more likely to die at a younger age than white people with an intellectual disability.  - Suggest it is made clear that some people with an intellectual disability and autistic people may not report respiratory symptoms as quickly (or at all), therefore extra support and monitoring should be considered and made for this group of people.  - Attention to soft signs of deterioration, including changes in behaviour, communication, mood and engagement can support the opportunity for early detection of illness and supports early intervention |
| 30 | Virtual wards: service provision | NHSE | Key area for quality improvement 2 | Rationale based on need for reasonable adjustments and appropriate communication standards:  - Specific communication needs and understanding by professionals with expertise in learning disability  - Need for good recording, understanding, implementation and sharing of reasonable adjustments: Adjustments aim to remove barriers, do things in a different way, or to provide something additional to enable a person to receive the assessment and treatment they need.  - Availability and use of specific educational material to inform joint decision making  - We strongly suggest reference to the consideration for existing multidisciplinary input into the care of the person. Consideration should also be given to the role of an organisation’s learning disability team or liaison nurse on issues of communication, reasonable adjustments, pain assessment etc |
| 31 | Virtual wards: service provision | NHSE | Key area for quality improvement 3 | Virtual ward platform  - We strongly suggest that technology should be suitable and accessible for people with a learning disability and their carers  - There should be recognition that baseline scores for some people with an learning disability may differ from average baselines in the general population. |
| 32 | Virtual wards: service provision | NHSE | General Comment | We strongly suggest reference to making reasonable adjustments: This is a legal requirement set out in the Equality Act 2010 and is important to support the right diagnostic and treatment decisions for an individual. made. Adjustments aim to remove barriers, do things in a different way, or to provide something additional to enable a person to receive the assessment and treatment they need. Possible examples include; allocating a clinician by gender, taking blood samples by thumb prick rather than needle, providing a quiet space to see the patient away from excess noise and activity. |
| 33 | Virtual wards: service provision | NHSE | General Comment | We recommend including reference to the importance of Communication: Communicate with and try to understand the person you are caring for. Check with the person themselves, their family member or carer or their hospital or communication passport for the best way to achieve this. Use simple, clear language, avoiding medical terms and ‘jargon’ wherever possible. Some people may be non-verbal and unable to tell you how they feel. Pictures may be a useful way of communicating with some people, but not all. |
| 34 | Virtual wards: service provision | NHSE | General Comment | A person with a learning disability and some autistic people may not be able to articulate their response to pain in the expected way: for example, they may say that they have a pain in their stomach when the pain is not there; may say the pain is less acute than you would anticipate; or not say they are in pain when they are. Some may feel pain in a different way or respond to it differently: for example, by displaying challenging behaviour; laughing or crying; trying to hurt themselves; or equally may become withdrawn or quiet. People who use a wheelchair may have chronic pain. Understanding what is ‘normal’ for that person by talking to |
| 35 | Virtual wards: service provision | NHSE | General Comment | Be aware of diagnostic overshadowing: This occurs when the symptoms of physical ill health are mistakenly either attributed to a mental health or behavioural problem or considered inherent to the person’s learning disability or autism diagnosis. People with a learning disability or autism have the same illnesses as everyone else, but the way they respond to or communicate their symptoms may be different and not obvious. Their presentation with COVID-19 may be different from that for people without a learning disability or autism. |
| 36 | Virtual wards: service provision | NHSE | General Comment | Pay attention to healthcare passports: Some people with a learning disability and some autistic people may have a healthcare passport giving information about the person and their health needs, preferred method of communication and other preferences. Ask the person or their accompanying carer if they have one of these. |
| 37 | Virtual wards: service provision | Primary Care Respiratory Society | Mobile service for rural areas | Centralised services in rural areas and contribute to geographical health inequalities |
| 38 | Additional area | Primary Care Respiratory Society | Workforce should include respiratory-experienced staff | Need to ensure appropriate respiratory-relevant care and service design (e.g mandatory mask wearing, isolation of patients with suspected SARS-CoV-2 infection) |
| 39 | Additional area | Primary Care Respiratory Society | Appropriate training for staff expected to triage patients for referral to an ARI service | Appropriate training to ensure only acutely unwell patients with respiratory infections are referred to an ARI. Patients not acutely unwell should be directed to appropriate services such as pharmacy |
| 40 | Additional area | Royal college of nursing | Key area for quality improvement 1  [Acute Respiratory Infection in over 16s: Initial assessment and management](https://www.nice.org.uk/guidance/indevelopment/gid-ng10376) | In England the Getting it right first time guidance recommends that all organisations (specifically hospitals) have a pneumonia lead and workforce to support respiratory infections which includes pneumonia.  [www.gettingitrightfirsttime.co.uk/wp-content/uploads/2021/03/Respiratory-Medicine-06-04i-Embargo.pdf](http://www.gettingitrightfirsttime.co.uk/wp-content/uploads/2021/03/Respiratory-Medicine-06-04i-Embargo.pdf)  Recommendation 13: one specialist nurse per 400 admissions |
| 41 | Additional area | Royal college of nursing | Key area for quality improvement 3  [Acute Respiratory Infection in over 16s: Initial assessment and management](https://www.nice.org.uk/guidance/indevelopment/gid-ng10376)  [Virtual Ward Platform Technologies for acute respiratory infections](https://www.nice.org.uk/guidance/indevelopment/gid-hte10006) | We know it is essential that the nursing workforce is funded and recruited as well as retained in these services. A lack of the nursing workforce leads to increased mortality.  [Nursing Workforce Standards | Professional Development | Royal College of Nursing (rcn.org.uk)](https://www.rcn.org.uk/Professional-Development/Nursing-Workforce-Standards)  <https://www.rcn.org.uk/-/media/Royal-College-Of-Nursing/Documents/Policies-and-briefings/UK-Wide/Policies/2021/BR-0521.pdf> |
| 42 | Additional area | Expert 3 | Key area for quality improvement 2 | *Systems and processes to support Surveillance & clinician awareness of circulating pathogens*.  If people aren’t testing for COVID or flu, then they risk being issued with repeated courses of antibiotics & escalation of care (admission, investigations). This was evident in GP in Dec22/Jan 23 when non-COVID respiratory infections were high, and also in Spring 2023 where COVID levels were high but not widely recognised by patients, care homes or clinicians, due to national testing policy. |
| 43 | Additional area | Association of Respiratory Nurses | national guidance for is – death on VW, particularly around certifying | No evidence |
| 44 | Additional area | Association of Respiratory Nurses | Oxygen titration/weaning in the community | Independent audit from Liverpool Heart and chest attached |
| 45 | Additional area | Association of Respiratory Nurses | Incorporation of discharge bundles as standard for step ups/downs to VW for relevant conditions - COPD | The care bundle being adopted nationally was developed by the British Thoracic Society and NHS Improvement.  Evidence:  [Designing and implementing a COPD discharge care bundle | Thorax (bmj.com)](https://thorax.bmj.com/content/67/1/90)  [Quality statement 8 (placeholder): Hospital discharge care bundle | Chronic obstructive pulmonary disease in adults | Quality standards | NICE](https://www.nice.org.uk/guidance/qs10/chapter/quality-statement-8-placeholder-hospital-discharge-care-bundle) |
| 46 | Additional area | Association of Respiratory Nurses | Virtual Ward users with COPD have a BTS COPD discharge bundle completed. | The NACAP audit excludes Virtual Wards use of the BTS COPD discharge bundle form the National Asthma and COPD Audit Programme dataset. Hence, excluding 5 high impact actions to ensure best clinical outcome for patients admitted to virtual wards with an acute exacerbation of COPD.  See [RightCare Pathway: COPD – Hospital admissions in patient care according to national standard](https://www.england.nhs.uk/rightcare/wp-content/uploads/sites/40/2017/12/nhs-rightcare-copd-pathway-v18.pdf)  [British Thoracic Society COPD Quality Improvement](https://www.brit-thoracic.org.uk/quality-improvement/clinical-resources/copd-spirometry/) |
| 47 | Additional area | NICE patient safety team | General | A search of our records has included looking at Regulation 28 reports from HM Coroner received by NICE, any related investigations by the Healthcare Safety Investigation Branch (HSIB) that NICE has been involved in, and other ad hoc intelligence we may have received from other sources.  In line with the scope, we have specifically considered cases with co-morbidities that will affect their risk, for example chronic obstructive pulmonary disease or where pneumonia has been a feature of the case.  From this search we have not identified any relevant coroners reports, general enquiries or HSIB reports that would fall into the scope of this topic. |
| 48 | - | Expert 3 | Key area for quality improvement 1 | This is very early in the process for identifying priorities: we have not seen the virtual ward evidence and not had a meeting to discuss the ARI evidence. Please consider a further opportunity to identify key areas. |