NICE National Institute for Health and Care Excellence

NICE Pathways

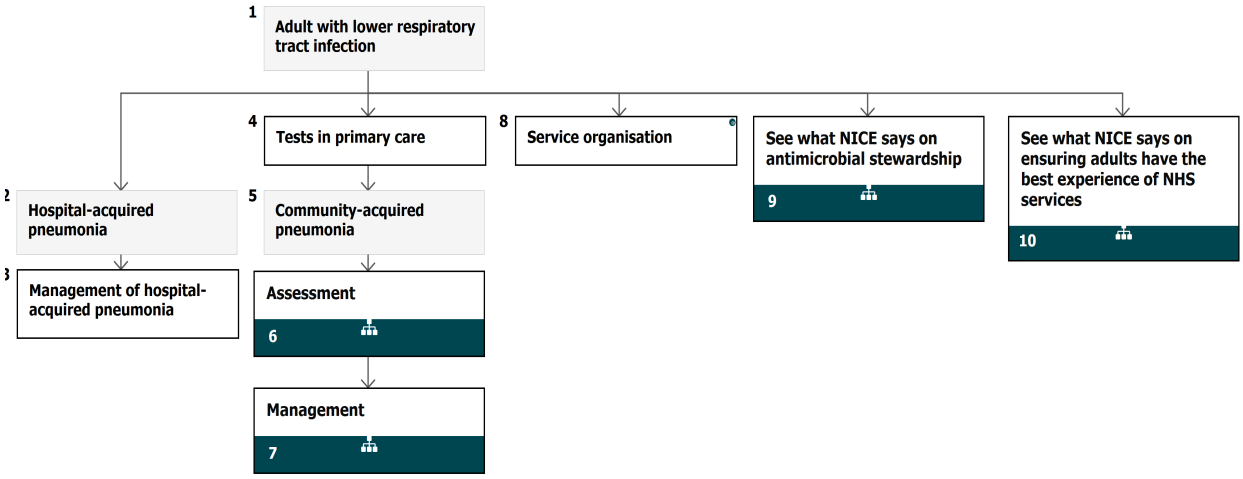
Pneumonia overview

NICE Pathways bring together everything NICE says on a topic in an interactive flowchart. NICE Pathways are interactive and designed to be used online.

They are updated regularly as new NICE guidance is published. To view the latest version of this NICE Pathway see:

http://pathways.nice.org.uk/pathways/pneumonia
NICE Pathway last updated: 29 November 2018

This document contains a single flowchart and uses numbering to link the boxes to the associated recommendations.



1 Adult with lower respiratory tract infection

No additional information

2 Hospital-acquired pneumonia

No additional information

3 Management of hospital-acquired pneumonia

Antibiotic therapy

Offer antibiotic therapy as soon as possible after diagnosis, and certainly within 4 hours, to patients with hospital-acquired pneumonia.

Choose antibiotic therapy in accordance with local hospital policy (which should take into account knowledge of local microbial pathogens) and clinical circumstances for patients with hospital-acquired pneumonia.

Consider a 5- to 10-day course of antibiotic therapy for patients with hospital-acquired pneumonia.

NICE has published evidence summaries on:

- antimicrobial prescribing: Ceftazidime/avibactam
- hospital-acquired pneumonia caused by methicillin-resistant Staphylococcus aureus: telavancin.

See what NICE says on acutely ill patients in hospital and prevention and control of healthcare-associated infections.

Severe acute respiratory failure

NICE has published interventional procedures guidance on the following procedures with **special arrangements** for consent, audit and clinical governance:

- extracorporeal membrane carbon dioxide removal for acute respiratory failure
- extracorporeal membrane oxygenation for severe acute respiratory failure in adults.

4 Tests in primary care

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.

NICE has published medtech innovation briefings on:

- FebriDx for C-reactive protein and Myxovirus resistance protein A testing in primary care
- Alere Afinion CRP for C-reactive protein testing in primary care
- QuikRead go for C-reactive protein testing in primary care.

See what NICE says on self-limiting respiratory tract and ear infections – antibiotic prescribing.

5 Community-acquired pneumonia

No additional information

6 Assessment

See Pneumonia / Assessment of community-acquired pneumonia

7 Management

See Pneumonia / Management of community-acquired pneumonia

8 Service organisation

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

Quality standards

The following quality statements are relevant to this part of the interactive flowchart.

3. Chest X-ray and diagnosis within 4 hours of hospital presentation

5. Antibiotic therapy within 4 hours in hospital

9 See what NICE says on antimicrobial stewardship

See Antimicrobial stewardship

10 See what NICE says on ensuring adults have the best experience of NHS services

See Patient experience in adult NHS services

Glossary

Clinical diagnosis of community-acquired pneumonia

(diagnosis based on symptoms and signs of lower respiratory tract infection in a patient who, in the opinion of the GP and in the absence of a chest X-ray, is likely to have community-acquired pneumonia; this might be because of the presence of focal chest signs, illness severity or other features)

Community-acquired pneumonia

(pneumonia that is acquired outside hospital: pneumonia that develops in a nursing home resident is included in this definition; when managed in hospital the diagnosis is usually confirmed by chest X-ray)

Dual antibiotic therapy

(treatment with 2 different antibiotics at the same time)

Hospital-acquired pneumonia

(pneumonia that develops 48 hours or more after hospital admission and that was not incubating at hospital admission: when managed in hospital the diagnosis is usually confirmed by chest X-ray; for the purpose of this guidance, pneumonia that develops in hospital after intubation (ventilator-associated pneumonia) is excluded from this definition)

Lower respiratory tract infection

(an acute illness (present for 21 days or less), usually with cough as the main symptom, and with at least 1 other lower respiratory tract symptom (such as fever, sputum production, breathlessness, wheeze or chest discomfort or pain) and no alternative explanation (such as sinusitis or asthma); pneumonia, acute bronchitis and exacerbation of chronic obstructive airways disease are included in this definition)

Mortality risk

(the percentage likelihood of death occurring in a patient in the next 30 days)

Sources

Pneumonia in adults: diagnosis and management (2014) NICE guideline CG191

Your responsibility

Guidelines

The recommendations in this guideline represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, professionals and practitioners are expected to take this guideline fully into account, alongside the individual needs, preferences and values of their patients or the people using their service. It is not mandatory to apply the recommendations, and the guideline does not override the responsibility to make decisions appropriate to the circumstances of the individual, in consultation with them and their families and carers or guardian.

Local commissioners and providers of healthcare have a responsibility to enable the guideline to be applied when individual professionals and people using services wish to use it. They should do so in the context of local and national priorities for funding and developing services, and in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities. Nothing in this guideline should be interpreted in a way that would be inconsistent with complying with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Technology appraisals

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, health professionals are expected to take these recommendations fully into account, alongside the individual needs, preferences and values of their patients. The application of the recommendations in this interactive flowchart is at the discretion of health professionals and

their individual patients and do not override the responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or their carer or guardian.

Commissioners and/or providers have a responsibility to provide the funding required to enable the recommendations to be applied when individual health professionals and their patients wish to use it, in accordance with the NHS Constitution. They should do so in light of their duties to have due regard to the need to eliminate unlawful discrimination, to advance equality of opportunity and to reduce health inequalities.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.

Medical technologies guidance, diagnostics guidance and interventional procedures guidance

The recommendations in this interactive flowchart represent the view of NICE, arrived at after careful consideration of the evidence available. When exercising their judgement, healthcare professionals are expected to take these recommendations fully into account. However, the interactive flowchart does not override the individual responsibility of healthcare professionals to make decisions appropriate to the circumstances of the individual patient, in consultation with the patient and/or guardian or carer.

Commissioners and/or providers have a responsibility to implement the recommendations, in their local context, in light of their duties to have due regard to the need to eliminate unlawful discrimination, advance equality of opportunity, and foster good relations. Nothing in this interactive flowchart should be interpreted in a way that would be inconsistent with compliance with those duties.

Commissioners and providers have a responsibility to promote an environmentally sustainable health and care system and should assess and reduce the environmental impact of implementing NICE recommendations wherever possible.