

COMMUNITY ACQUIRED PNEUMONIA

B	CRP levels are of limited use as a diagnostic tool for community acquired pneumonia (CAP) and should not be performed routinely.
D	Consider spirometry in the convalescent period to diagnose asthma or COPD in patients with community acquired pneumonia presenting with a cough associated with diffuse wheeze or crackles.
C	Chest x-ray: <ul style="list-style-type: none"> ▪ should not be used routinely for patients with acute symptoms of community acquired pneumonia ▪ should be considered in the convalescent period in community acquired pneumonia patients who smoke, or if patients do not make satisfactory progress.
D	Early administration of antibiotics in patients with pneumonia is essential.
<input checked="" type="checkbox"/>	For patients with indices of severity who might normally be referred to hospital, but for various reasons are managed in the community, aminopenicillin and macrolide combination treatment and close follow-up is recommended.
<input checked="" type="checkbox"/>	Patients with features of pneumonia should be reviewed after 48 hours, or earlier if clinically indicated, when severity should be reassessed.

OTHER MANAGEMENT MEASURES

D	GPs can reduce a patient's expectations of being prescribed an antibiotic and reduce unnecessary consultations by addressing four issues at consultation: <ul style="list-style-type: none"> ▪ The natural course of the illness ▪ The lack of effectiveness of antibiotics ▪ The problems of antibiotic resistance ▪ The side effects of antibiotics.
B	GPs should give non-pneumonic LRTI patients a leaflet to help explain the illness, to explain the decision not to prescribe an antibiotic and to reduce consultation rates.
<input checked="" type="checkbox"/>	Patients in all groups should be advised to rest and drink plenty of fluids. Paracetamol should be advised as an antipyretic and analgesic. There is no good evidence that cough mixtures work. Patients should also be advised to contact their general practice in the event of deterioration.

IMMUNISATION

B	Influenza vaccination is recommended for those aged ≥65 years and for people of any age with underlying chronic disease or living in long-stay residential care, and for health and social care workers.
B	Pneumococcal polysaccharide vaccine (PPV) should be given to all those aged two years or older in whom pneumococcal infection is likely to be more common or more serious in terms of increased morbidity and mortality (those with chronic lung disease, underlying medical conditions or severely immunocompromised).
B	PPV should be given to all people over the age of 65 years, on a one-off basis, to be administered when patients receive their routine annual influenza vaccine.

LOWER RESPIRATORY TRACT INFECTION**59**

The Scottish Intercollegiate Guidelines Network (SIGN) support improvement in the quality of health care for patients in Scotland by developing national clinical guidelines containing recommendations for effective practice based on current evidence.

The recommendations are graded **A B C D** to indicate the strength of the supporting evidence.

Good practice points are provided where the guideline development group wish to highlight specific aspects of accepted clinical practice.

Details of the evidence supporting these recommendations and their application in practice can be found in the full guideline, available on the SIGN website: www.sign.ac.uk.

This guideline was issued in June 2002 and will be considered for review in 2005.

For more information about the SIGN programme, contact the SIGN executive or see the website.

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Quick Reference Guide

This Quick Reference Guide provides a summary of the main recommendations in the SIGN guideline on Community Management of Lower Respiratory Tract Infection (LRTI) in Adults. This guideline covers adults (>16 years of age) presenting to primary healthcare services or Accident and Emergency departments with acute lower respiratory symptoms and/or signs which may be due to infection. This includes non-pneumonic LRTI, chronic obstructive pulmonary disease (COPD), and community acquired pneumonia (CAP).

Exact definition of LRTI is difficult as the term is used to cover a wide variety of clinical situations ranging from non-pneumonic LRTI in the young healthy adult through to pneumonia or life-threatening exacerbation in a patient with severe disabling COPD. No combination of symptoms or clinical findings (i.e. pulse, respiratory rate, temperature, and chest examination) can reliably confirm the diagnosis of pneumonia.

NON-PNEUMONIC LRTI IN PREVIOUSLY WELL PATIENTS

B	Sputum culture, chest x-ray and blood tests for C - reactive protein (CRP) should not be carried out routinely in non-pneumonic LRTI.
A	Antibiotics should not normally be prescribed for previously well patients who do not have signs in the chest or features of severity.
A	Sputum purulence alone is not an indication for antibiotics in a previously well patient with no chest signs.

EXACERBATIONS OF COPD

<input checked="" type="checkbox"/>	<ul style="list-style-type: none"> ▪ Visualise sputum in patients with an exacerbation of COPD. ▪ Where sputum purulence is present and antibiotic treatment is intended, obtain sputum culture if overnight analysis is available. ▪ Base antibiotic choice on the result of the sputum culture. ▪ If overnight analysis is not available, proceed with empirical therapy, if appropriate.
<input checked="" type="checkbox"/>	Chest x-ray: <ul style="list-style-type: none"> ▪ should not be used routinely for patients with acute symptoms of exacerbations of COPD. ▪ should be considered in the convalescent period in COPD patients who smoke, or if patients do not make satisfactory progress.
B	Patients with significant airways obstruction who have an increase in breathlessness and sputum purulence should be treated with an antibiotic.
<input checked="" type="checkbox"/>	The antibiotic of choice should be an aminopenicillin, a macrolide or a tetracycline.

Lower Respiratory Tract Infection



ADULTS IN THE COMMUNITY WITH SYMPTOMS OF LOWER RESPIRATORY TRACT INFECTIONS

ACUTE COUGH

Are there lower respiratory tract symptoms or signs?

Yes

No

Are they related to or possibly triggered by infection?

Yes

No

FEATURES OF SEVERITY?

raised respiratory rate, low blood pressure, new confusion, tachycardia

No

Yes

NEW FOCAL CHEST SIGNS?

(crackles or altered breath sounds)

No

Early administration of antibiotics is good practice

Consider referral to secondary care

Any other explanation?
(e.g. asthma, upper respiratory tract illness, gastrointestinal reflux)

Manage appropriately

SIGNIFICANT PRIOR LUNG DISEASE?

No, i.e. previously well

Yes e.g. acute exacerbation of COPD

Yes

Increased dyspnoea and sputum purulence?

No

Yes

NO

MAYBE

YES

ANTIBIOTIC TREATMENT?
(refer to Annex 1)

In all cases, give symptomatic treatment with fluids and paracetamol, and if appropriate provide educational material regarding lower respiratory tract infections, assess for unknown co-morbidity, advise smoking cessation and check vaccination status against influenza & pneumococcus. When a decision to give antibiotic has been made, a sputum culture is good practice wherever possible.