

# Respiratory Problems

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One in a series of curriculum statements produced by  
the Royal College of General Practitioners:

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## Key messages

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- Respiratory problems are the most common reason for general practice consultation and emergency medical admission to hospital.
- Smoking cessation advice is an essential part of health promotion activity in primary care.
- The full involvement of patients in the management of their respiratory problems is essential.
- The management of asthma and chronic obstructive pulmonary disease (COPD) in primary care is a key competence for general practice.
- There is little evidence to support antibiotic prescribing for upper respiratory infections.
- Antibiotics prescribing needs to be rationed to reduce the development of antimicrobial resistance.

# [INTRODUCTION]

## Rationale for this curriculum statement

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Respiratory problems, including infections of the upper and lower respiratory tracts, are a very common reason for patients to attend their general practitioners (GPs). Eight million people suffer from respiratory disease in the UK, with one-third of the population visiting their general practice at least once a year with a respiratory condition.<sup>1</sup> It is the most common reason for general practice consultation and emergency medical admission to hospital.<sup>1</sup> The cost to the health service is more than any other disease area and accounts for 2.8 million bed days a year.<sup>1</sup> In addition, the prevalence of respiratory and allergic diseases is on the increase.<sup>2,3,4</sup> The prevalence of asthma in males increased by 114% and in females by 165% between the 1980s and the 1990s.

Serious causes of respiratory disease kill one in four people in the UK, and account for more deaths than coronary artery disease or non-respiratory cancer.<sup>5</sup> Social inequality accounts for a higher proportion of deaths than any other disease area and the death rate in the UK is twice that of the EU average. Lung cancer is the most common cause of cancer deaths in men and women. It requires continuity of care and coordination with other healthcare providers.

Currently 1500 people still die from asthma each year, including around 25 children and 500 adults younger than 65 years.<sup>6</sup> Confidential enquiries have shown suboptimal care and poor adherence to medication contribute to unnecessary deaths.<sup>7,8,9</sup>

## UK health priorities

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Most respiratory illness can be managed in primary care. Asthma accounts for 2–3% of general practice consultations, with 85% of asthma patients managed exclusively in primary care.<sup>10</sup> More patients could be managed with greater access to spirometry, physiotherapy, O<sub>2</sub> concentrators and enhanced nursing skills.

Respiratory disease is not currently one of the priority areas defined in the national strategy for health. In priority areas, such as cardiac disease, diabetes and cancer, National Service Frameworks are enhancing the delivery of optimal care and increasing research funding in these areas. There is a danger that those suffering from conditions that are not prioritised (like respiratory disease) will become disadvantaged, leading to potential discrimination by disease.

The Respiratory Alliance has called for respiratory problems to receive greater national attention through the publication of *Bridging the Gap: commissioning and delivering high quality integrated respiratory healthcare*.<sup>5</sup> This important booklet has the following aims:

- To summarise the burden of the major respiratory conditions
- To define reasonable expectations for patients with these conditions
- To clarify the service requirements to bridge the gap between current services and expectations.

**General Medical Services 2 contract**

The new GMS contract includes 10 clinical domains in the Quality and Outcomes Framework. Of these one covers the management of asthma and another relates to the management of chronic obstructive pulmonary disease (COPD).

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# [LEARNING OUTCOMES]

The following learning objectives describe the knowledge, skills and attitudes that a GP requires when managing patients with respiratory problems. This curriculum statement should be read in conjunction with the other RCGP curriculum statements in the series. The full range of generic competences is described in the *core* RCGP curriculum statement 1, *Being a General Practitioner*.

## Primary care management

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- Manage primary contact with patients who have a respiratory problem.
- Demonstrate a consistent, evidence-based approach to antibiotic prescribing for respiratory infections.
- Coordinate care with other primary care health professionals, such as practice nurses, district nurses and physiotherapists, to enable chronic disease management and pulmonary rehabilitation.
- Apply the guidelines for emergency admission of patients with an acute exacerbation of asthma, to help reduce preventable deaths.
- Explain the indications for urgent referral to specialist services, especially for patients with suspected lung cancer.
- Describe the indications for home oxygen therapy and home nebulisers, and evaluate individual patients' requirements for these.

## The knowledge base

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### Symptoms:

- Breathlessness, cough, wheeze, chest pain, sputum production, haemoptysis.

### Common and/or important conditions:

- Upper respiratory tract infections: sore throats and colds, tonsillitis, peritonsillar abscess, epiglottitis, laryngitis and tracheitis
- Lower respiratory tract infections: influenza, bronchiolitis, bronchitis and pneumonia (of any cause)
- Acute non-infective respiratory problems: allergy and anaphylaxis, hypersensitivity pneumonitis, pulmonary embolus, pneumothorax, aspiration of a foreign body
- Chronic lower respiratory problems: chronic cough, asthma, COPD, tuberculosis, cystic fibrosis, chronic interstitial lung diseases
- Lung cancer.

### Investigation:

- Serial peak flow measurement, including patient diaries
- Reversibility testing using peak flow meter
- Spirometry
- Knowledge of secondary-care investigations and treatment including lung function assessment, computerised tomography (CT) and magnetic resonance imaging (MRI).

### Treatment:

- Understand principles of treatment for common conditions managed largely in primary care – upper and lower respiratory tract infections, asthma, COPD, allergic reactions and anaphylaxis

- Inhaler technique for using commonly used devices.

**Emergency care:**

- Acute management of people presenting with shortness of breath
- Acute management of anaphylaxis
- Management of exacerbations of asthma and COPD
- Understand indications for emergency referral of people with asthma, COPD and anaphylaxis.

**Prevention:**

- Smoking cessation assessment, advice and management
- Vaccination against influenza, *streptococcus pneumoniae*, *haemophilus influenzae b*, diphtheria and pertussis
- Health education advice and patient self-management plans for people with asthma and COPD
- Understand avoidance of triggers and prophylaxis for allergic conditions
- Investigation of people with family history of genetic respiratory disease, e.g. cystic fibrosis.

## Person-centred care

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- Identify the patient's health beliefs regarding smoking and either reinforce, modify or challenge these beliefs as appropriate.
- Negotiate a patient self-management plan for asthma in partnership with the patient.
- Communicate prognosis truthfully and sensitively to patients with incurable disabling respiratory conditions, such as COPD and metastatic lung cancer, and share uncertainty when the patient wants this information.
- Demonstrate empathy and compassion towards patients with incurable disabling respiratory conditions.
- Utilise disease registers and data-recording templates effectively for opportunistic and planned monitoring of respiratory problems to ensure continuity of care between different healthcare providers.

## Specific problem-solving skills

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- Utilise knowledge of the relative prevalence of respiratory problems to assist diagnosis.
- Describe the alarm symptoms for lung cancer.
- Recognise particular groups of patients at higher risk of acquiring a respiratory infection, e.g. asthmatics and those with other underlying lung pathology, HIV/AIDS, immune-compromised, alcoholics, the frail (old and young).
- Explain the role of serial peak flow measurement, reversibility testing and spirometry in the diagnosis of asthma and COPD.
- Intervene urgently when patients present with a respiratory emergency, e.g. anaphylaxis, inhaled foreign body, epiglottitis, etc.

## A comprehensive approach

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- Assess the likelihood of occupational exposure as a cause of respiratory disease (e.g. COPD).
- Recognise that breathlessness may have several coexisting causes (e.g. simultaneous cardiac and respiratory disease) and determine optimum management for these.

- Consider safety issues when prescribing home oxygen therapy.

## Community orientation

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- Understand the current population trends in the prevalence of allergic and respiratory conditions in the community.
- Appreciate the importance of the social and psychological impact of respiratory problems on the patient's family, friends, dependants and employers.
- Consider safety issues when prescribing home oxygen therapy.

## A holistic approach

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- Appreciate the importance of the social and psychological impact of respiratory problems on the patient's family, friends, dependants and employers.
- Appreciate the disability suffered by people with chronic respiratory problems.
- Empower patients to self-manage their conditions as far as practicable.
- Recognise the stigma associated with smoking when giving health promotion advice to ensure the doctor-patient relationship is not damaged.

## Contextual aspects

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- Understand the current population trends in the prevalence of allergic and respiratory conditions in the community.
- Recognise the central role of primary care in managing asthma and COPD.
- Recognise that suboptimal care and poor adherence to medication contribute to unnecessary deaths from asthma.
- Recognise that lung cancer is the leading cause of cancer deaths in both men and women, often affecting young patients.

## Attitudinal aspects

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- Ensure that personal opinion regarding smoking does not influence management decisions for people with respiratory problems.

## Scientific aspects

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- Understand and implement the key national guidelines that influence healthcare provision for respiratory problems (e.g. the BTS/SIGN guidelines on asthma management, the NICE guidelines on COPD management).
- Understand the evidence regarding antibiotic prescribing in upper respiratory tract infections.

## Psychomotor skills

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- Demonstrate peak flow measurement technique using child and adult meters, and interpret the results.
- Describe how to use peak flow diaries and evaluate the results.
- Describe, demonstrate and assess technique for using common inhaler types.
- Demonstrate the use of a hand-held spirometer.
- Interpret the results from spirometry.

## [ FURTHER READING ]

### Examples of relevant texts and resources

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- Arroll B and Kenealy T. Antibiotics for the common cold and acute purulent rhinitis *Cochrane Database of Systematic Reviews* 2005, Issue 3. Art. No.: CD000247
- British Medical Association and Royal Pharmaceutical Society of Great Britain. *The British National Formulary* London: BMJ Books, updated annually
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- Global initiative for chronic obstructive lung disease (GOLD) scientific committee (eds). *Global Strategy for the Diagnosis, Management and Prevention of Chronic Obstructive Lung Disease (2006) GOLD, 2006*, [www.goldcopd.com/Guidelineitem.asp?l1=2&l2=1&intId=989](http://www.goldcopd.com/Guidelineitem.asp?l1=2&l2=1&intId=989)
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- William S, Ryan D, Price D, *et al.* General practitioners with a special clinical interest: a model for improving respiratory disease management *Br J Gen Pract* 2002; 52: 838-43
- Working Party of the General Practice Airways Group and the Royal College of General Practitioners. General practitioners with a special interest in respiratory medicine *Prim Care Resp J* 2003; 12(2): 38-41

### Web resources

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#### British Thoracic Society

Information on spirometry can be found at British Thoracic Society.  
[www.brit-thoracic.org.uk](http://www.brit-thoracic.org.uk)

#### BTS/ SIGN: British Guideline on Asthma Management **2003-2008**

Useful for current management guidelines on asthma.  
[www.sign.ac.uk](http://www.sign.ac.uk) or [www.brit-thoracic.org.uk](http://www.brit-thoracic.org.uk)

#### General Practice Airways Group (GPIAG)

An excellent site for access to resources on the management of respiratory disease in primary care.

[www.gpiag.org.uk](http://www.gpiag.org.uk) [www.gpiag.org](http://www.gpiag.org)

### **GOLD (WHO Global Initiative for Chronic Lung Disease)**

Useful for current management guidelines on COPD.

[www.goldcopd.com](http://www.goldcopd.com)

### **National Asthma Campaign**

For patient information and specifically for resources on action/self-management plans.

[www.asthma.org.uk](http://www.asthma.org.uk)

### **National Respiratory Training Centre (NRTC)**

It aims to provide a consistent, comprehensive and innovative approach to professional health training in the field of respiratory health, with the ultimate objective of transforming lives worldwide. Educational programmes are run nationally and internationally, and are accredited by the Open University.

[www.nrtc.org.uk](http://www.nrtc.org.uk)

### **NICE guidance on respiratory diseases**

[www.nice.org.uk](http://www.nice.org.uk)

### **Interesting papers**

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- Douglas NJ and George CFP. Treating sleep apnoea is cost effective *Thorax* 2002; 57: 93
- Greater expectations. Findings of the National Asthma Campaign Survey of the Needs of People with Asthma *Asthma J* 2000; 5
- McNicholas WT. Sleep apnoea and driving risk *Eur Respir J* 1999; 13: 1225-7
- National Asthma Campaign. Asthma audit out in the open. A true picture of asthma in the UK today *Asthma J* September 2001; 6: special supplement
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- Saarinen M and Kajosaari M. Breastfeeding as prophylaxis against atopic disease: prospective follow-up study until 17 years old *Lancet* 1995; 346: 1065-9
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# **[PROMOTING LEARNING ABOUT RESPIRATORY PROBLEMS]**

## **Work-based learning – in primary care**

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Most patients with chronic respiratory conditions (asthma and COPD) are managed in primary care settings, making this an ideal place to learn. There is no substitute for clinical experience supported by a GP trainer and experienced members of the primary healthcare team, such as the physiotherapist, occupational therapist and district nurse. Locally based GPs and practitioners with a special interest in respiratory disease are a good source of information, advice and support.

## **Work-based learning – in secondary care**

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Some GP training programmes will contain placements of varying length in acute medicine and with respiratory physicians that give exposure to acutely ill patients and inpatients with serious respiratory problems. Specialist care is also provided in outpatient or clinic settings – particularly for patients who have rare conditions, require specialist treatments or have proven difficult to control in primary care. These are ideal places for seeing concentrated groups of patients with respiratory problems.

## **Non-work-based learning**

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Reading, discussion and developing an understanding of the national guidelines for respiratory problems is an important aspect of learning.

The National Respiratory Training Centre (NRTC) provides accredited education and training in respiratory and allergic disease for health professionals. Their courses are accredited by the Open University. They provide short courses, taught by NRTC trainers based around the UK and distance learning programmes. They are designed for both primary and secondary care health professionals caring for patients with respiratory or allergic conditions ([www.nrtc.org.uk](http://www.nrtc.org.uk)).

## **Learning with other healthcare professionals**

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Practice nurses, nurse practitioners, physiotherapists, occupational therapists and district nurses have important expertise in the management of and rehabilitation for respiratory disease. Exploration and discussion of these roles are important for learning. In particular, practice nurses are often responsible for ongoing monitoring and management of asthma and COPD, and a clear understanding of their role is essential.

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- 2 ISAAC. Worldwide variation in prevalence of symptoms of asthma, allergic rhinoconjunctivitis and atopic asthma *Lancet* 1998; 351: 1225–32
- 3 Omran M and Russell G. Continuing increase in respiratory symptoms and atrophy in Aberdeen schoolchildren *BMJ* 1996; 312: 34
- 4 Anderson HR, Butland BK, Strachan DP. Trends in prevalence and severity of childhood asthma *BMJ* 1994; 308: 160–4
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