



A POPULATION-FOCUSED RESPIRATORY SERVICE FRAMEWORK

Providing an overview of what an integrated system can offer its respiratory population both in and out of hospital

This framework, developed by the PCRS-UK Service Development Committee helps those looking to design a holistic and integrated respiratory service to see the ideal components for a given population of patients.

It builds on the work previously undertaken by PCRS-UK to develop a series of care standards for GP practices as part of its Quality Award programme. With the rise of integrated care systems and general practice at scale, commissioners and service development managers tell us they are keen to improve care and reduce variability but needed a starting point.

The Respiratory Service Framework provides that starting point by describing the scope of best respiratory care and the services required

The framework has been developed by a multi-disciplinary team of clinicians, who are all members of the PCRS-UK Service Development Committee: GPs Noel Baxter, Daryl Freeman, Katherine Hickman, and Sanjeev Rana, Consultant Chest Physician, Binita Kane, Respiratory Specialist Nurse, Vikki Knowles and Respiratory Specialist Physiotherapist Alex Woodward.

PCRS-UK is grateful to Cogora, the publisher of Pulse, Healthcare Leader and Management in Practice for their contribution to the design of the framework

The Primary Care Respiratory Society UK is a registered charity; Charity No: 1098117. Company No: 4298947. VAT Registration Number: 866 1543 09. Email: info@pcrs-uk.org

Website: <http://www.pcrs-uk.org> Twitter: [@pcrsuk](https://twitter.com/pcrsuk) Facebook: <https://www.facebook.com/PCRSUK>

The Primary Care Respiratory Society UK is grateful to its corporate supporters including AstraZeneca UK Ltd, Boehringer Ingelheim Ltd, Chiesi Ltd, Johnson & Johnson Ltd, Napp Pharmaceuticals, Novartis UK and Pfizer Ltd for their financial support which supports the core activities of the Charity and allows PCRS-UK to make its services either freely available or at greatly reduced rates to its members.

Respiratory disease - template

Primary prevention

- Health promotion and education

Early, accurate and complete diagnosis of respiratory symptoms

- Spirometry screening of high-risk patients in community and general practice
- Accurate performance and interpretation of spirometry (ongoing assessment of competencies with support)
- Accurate diagnosis register
- Stratification of registers by disease severity: mild, moderate, severe
- Enhanced referral pathways to specialist support for diagnostic difficulty

Treatment and management of 1) chronic respiratory diseases in acute and stable phases 2) acute respiratory disease

- Expanded templates to guide NICE guideline-based management
- Vaccination
- Named specialist respiratory nurse for practice clusters
- Specialist medication reviews by community pharmacists
- Self-management education and written individualised action plans
- Anticipatory care
- Knowledge and support for carers

Complex and severe disease

- Case management by appropriate case manager (respiratory nurse specialist or community matron)
- Evidence-based oxygen prescribing and follow-up
- Consultant- and nurse-led clinics with multidisciplinary team support (including physiotherapy, psychology, dietetics)
- Non-invasive ventilation
- Planned hospital admission for those who need it

High-cost and high-need patients

- Admission avoidance through intermediate care
- Hospital admission
- Supported discharge to reduce length of stay via early supported discharge programme or intermediate care
- Post-admission review in consultant and nurse-led clinics
- Complex multi-morbidities and frailties

End-of-life care

- Gold Standards Framework
- Prognostic indicators for primary and secondary care
- Specialist support
- Referral pathways
- Treatment and management

Smoking cessation, supported self-care to include maintaining healthy weight and activity levels. Air quality.

Strategies to reduce breathlessness including pulmonary rehabilitation, respiratory physiotherapy and occupational therapy/psychological support

Integrated social care and therapies aimed at enabling independent living and carer support

Supportive and palliative care

Education and clinical support for generalist healthcare professionals

System-wide shared patient information including templates/management plans shared across all healthcare providers

Patient engagement, peer support and self-management. Quality Improvement

Primary prevention

Smoking cessation, supported self-care to include maintaining healthy weight and activity levels. Air quality.

Strategies to reduce breathlessness including pulmonary rehabilitation, respiratory physiotherapy and occupational therapy/psychological support

Integrated social care and therapies aimed at enabling independent living and carer support

Supportive and palliative care

Early, accurate and complete diagnosis of respiratory symptoms

- High, low, intermediate probability of asthma
- Trial of treatment
- Accurate performance and interpretation of spirometry and bronchodilator reversibility (ongoing assessment of competencies with support)
- Asthma register (ongoing validation with support)
- Enhanced referral pathways to specialist support for diagnostic difficulty/FeNO

Treatment and management of 1) chronic respiratory diseases in acute and stable phases 2) acute respiratory disease

- Expanded templates to guide BTS-SIGN guideline-based management
- Vaccination
- Named specialist respiratory nurse for practice clusters
- Specialist medication reviews by community pharmacists
- Supported self-management education and written personal asthma action plans (home and school)
- Anticipatory care
- Knowledge and support for carers

Complex and severe disease

- Case manager, i.e. respiratory nurse specialist
- Ensure correct diagnosis, tackle poor adherence - supervised inhalers at school
- Consultant- and nurse-led clinics with multidisciplinary team support (including psychology). Consider omalizumab/ immunotherapy
- Planned hospital admission for those who need it
- Home-visit paediatric team

High-cost and high-need patients

- Hospital admission
- Supported discharge
- Post-admission review in consultant- and nurse-led clinics

End-of-life care

- Prognostic indicators for primary and secondary care
- Specialist support/ tertiary care omalizumab/ immunotherapy/ bronchial thermoplasty
- Referral pathways

Education and clinical support for generalist healthcare professionals

System-wide shared patient information including templates/management plans shared across all healthcare providers

Patient engagement, peer support and self-management. Quality Improvement

Asthma - Adult

Primary prevention

- Health promotion and education

Early, accurate and complete diagnosis of respiratory symptoms

- High, low, intermediate probability of asthma
- Peak expiratory flow rate, trial of treatment
- Accurate performance and interpretation of spirometry and bronchodilator reversibility (ongoing assessment of competencies with support)
- Asthma register (ongoing validation with support)
- Enhanced referral pathways to specialist support for diagnostic difficulty

Treatment and management of respiratory disease in stable, flaring and acute stages

- Expanded templates to guide BTS-SIGN guideline-based management
- Vaccination
- Named specialist respiratory nurse for practice clusters
- Specialist medication reviews by community pharmacists
- Supported self-management education and written personal asthma action plan
- Anticipatory care
- Knowledge and support for carers

Complex / severe disease

- Case management by appropriate case manager (respiratory nurse specialist)
- Ensure correct diagnosis, tackle poor adherence
- Consultant- and nurse-led clinics with multidisciplinary team support (including physiotherapy, psychology, dietetics)
- Planned hospital admission for those who need it

High-cost / high-need patients

- Hospital admission
- Supported discharge
- Post-admission review in consultant- and nurse-led clinics

End-of-life care

- Gold Standards Framework
- Prognostic indicators for primary and secondary care
- Specialist support
- Referral pathways
- Treatment and management

Smoking cessation, health promotion and supported self-care to include maintaining healthy weight and activity levels. Air quality.

Strategies to reduce breathlessness including pulmonary rehabilitation, respiratory physiotherapy and occupational therapy/psychological support

Integrated social care and therapies aimed at enabling independent living

Supportive and palliative care

Education and clinical support for generalist healthcare professionals

Patient engagement, peer support and self-management. Quality Improvement

Treating tobacco dependency

Primary prevention

- E-cigarette policy
- Tobacco-free health venues
- Tobacco-free public venues
- Tax, illegal and other legislation
- Schools programmes
- Education about tobacco in cigarettes, shisha and with cannabis
- National Centre for Smoking Cessation and Training: Very Brief Advice

Early, accurate and complete diagnosis of respiratory symptoms

- Health and public space exhaled carbon monoxide testing
 - Policy
 - Equipment
 - Training
 - Adults
 - Children
 - Young people
 - Families
- Records and stratification of severity and relapse risk
 - Fagerstrom test
 - Self-reported status
- Health space cotinine testing
 - Policy
 - Equipment
 - Training

Treatment and management of 1) chronic respiratory diseases in acute and stable phases 2) acute respiratory disease

- Very Brief Advice
 - Globally trained workforce
 - System-specific 'advise' and 'ask'
- Behaviour change formulary e.g.
 - 'Not one puff' rule
 - Goal setting
 - Agreeing measurement tool
- Pharmacotherapy formulary

Complex / severe disease

- Stop-smoking specialists within teams that look after complex patients who smoke tobacco
- Use of stratification process to apportion resource most appropriately

High-cost / high-need patients

- Multidisciplinary team working between teams working with people who have serious mental illness plus long-term conditions
- Process that enables seeing those who you don't normally see
 - Homeless
 - Prison populations

End-of-life care

- Local policy for use of oxygen in tobacco users
- Death certificate policy for recording smoking cessation

Smoking cessation, supported self-care to include maintaining healthy weight and activity levels. Air quality.

Strategies to reduce breathlessness including pulmonary rehabilitation, respiratory physiotherapy and occupational therapy/psychological support

Integrated social care and therapies aimed at enabling independent living

Supportive and palliative care

Education and clinical support for generalist healthcare professionals

Patient engagement, peer support and self-management. Quality Improvement

Interstitial Lung Disease Pathway

Primary prevention

- Health promotion and education

Early, accurate and complete diagnosis of respiratory symptoms

- Complete and full history documented of respiratory symptoms
 - Chest X-ray
 - Pulse Oximetry
- Accurate performance and interpretation of spirometry for patient presenting with respiratory symptoms
- Accurate diagnosis register
- Vaccination
- Enhanced referral pathways to specialist support for diagnostic confirmation

Treatment and management of respiratory disease in stable, flaring and acute stages

- Expanded templates to guide NICE guideline-based management
- Pulmonary rehabilitation
- Shared care with specialist respiratory team
- Evidence-based oxygen prescribing and follow-up
- Named specialist respiratory nurse
- Specialist medication and surgical consideration from tertiary centre
- Self-management education and written individualised action plans
- Anticipatory care
- Knowledge and support for patient and carers

Complex / severe disease

- Case management, ideally by a respiratory nurse specialist or community matron
- Consultant- and nurse-led clinics with multidisciplinary team support (including physiotherapy, psychology, palliative care dietetics)
- Shared care specialist respiratory team, palliative care team and case manager
- Non-invasive ventilation
- Planned hospital admission for those who need it and wish for active management

High-cost / high-need patients

- Admission avoidance through intermediate care
- Hospital admission or respite care if ceiling of treatment agreed
- Supported discharge to community / palliative multidisciplinary team
- Post-admission review in specialist consultant- and nurse-led clinics
- Oxygen re-assessment

End-of-life care

- Gold Standards Framework
- Prognostic indicators for primary and secondary care
- Specialist support
- Preferred place of care / referral pathways
- Treatment / management, and 'palliative care' box
- Breathlessness management

Smoking cessation, supported self-care to include maintaining healthy weight and activity levels. Air quality.

Strategies to reduce breathlessness including pulmonary rehabilitation, respiratory physiotherapy and occupational therapy/psychological support

Integrated social care and therapies aimed at enabling independent living

Supportive and palliative care

Education and clinical support for generalist healthcare professionals

Patient engagement, peer support and self-management. Quality Improvement

Chronic Obstructive Pulmonary Disease (COPD) - GP Surgery

Primary prevention

- Smoking cessation and prevention
- Health promotion in pregnancy and early childhood
- Reduction of indoor and outdoor pollution
- Identification of occupational risk factors

Early, accurate and complete diagnosis of respiratory symptoms

- Opportunistic case finding and diagnostic quality-assured spirometry for patients in community care
- All patients to receive accurate diagnostic spirometry performed and interpreted by a suitably trained clinician
- Disease registers should be accurate, reviewed and stratified by a severity assessment and not based on lung function alone

Treatment and management of COPD in stable, flaring and acute stages

- Management of stable disease should be guideline-defined, agreed locally and led by local expertise. Management across a healthcare system should be shared across all agencies, template-driven, consistent, and guideline-based
- Working at scale in whatever form provides opportunities for sharing expertise and developing novel pathways for COPD management

Complex / severe disease

- Case management by appropriate case manager (respiratory nurse specialist or community matron) in conjunction with all relevant community teams
- Evidence-based oxygen prescribing and follow up as close to patient's home as clinically possible
- Comorbidities should be identified and optimally managed
- Use of practice IT systems can identify patients at risk of admission and those who should be referred to specialist teams

High-cost / high-need patients

- Ensure these patients are cared for in a holistic manner focusing not just on their COPD, but their comorbidities and psychosocial needs
- The patient should remain at the centre of the process with primary care communicating the change of focus in managing their disease from treatment to supportive
- Use of community teams including specialist nurses, occupational therapists and physiotherapists may help in delivering this rounded care
- Prompt referral and access to specialist respiratory care

End-of-life care

- Ensure these patients are on the Gold Standards Framework list
- Where appropriate, prompt referral into palliative or breathlessness services
- Use a patient-centred approach that delivers seamless end-of-life care in the community
- Full discussion around preferred place of care and end-of-life process

Smoking cessation, supported self-care to include maintaining healthy weight and activity levels. Air quality.

Strategies to reduce breathlessness including pulmonary rehabilitation, respiratory physiotherapy and occupational therapy/psychological support

Integrated social care and therapies aimed at enabling independent living

Supportive and palliative care

Education and clinical support for generalist healthcare professionals

Patient engagement, peer support and self-management. Quality Improvement

Lung Cancer

Primary prevention

- Health promotion and education
- Smoking cessation and prevention programmes
- Increased awareness and reduction of occupational risks

Early, accurate and complete diagnosis of respiratory symptoms

- Annual chest X-ray (CXR) screening for high-risk population: 55-74 years, 30 pack years and active smoker or given up in last 15 years
- Hot reporting of CXR within 24 hours
- Rapid secondary care assessment for unexplained symptoms of cough, weight loss, anorexia, lethargy, anaemia, haemoptysis, or shortness of breath in high-risk population regardless of CXR findings
- Multidisciplinary team meetings – prompt and findings communicated to wider healthcare team
- Ensure treatment pathways remain sensitive to patient wishes

Treatment and management of respiratory diseases in stable, flaring and acute phases

- Smoking cessation
- Named cancer specialist nurse for primary care
- Specialist medication reviews by community pharmacists
- Access to urgent assessment for oncological emergencies
- End-of-cancer treatment 'recovery package', holistic needs assessment, end of treatment summary, health and wellbeing event and meeting with GP
- Survivorship and management of long-term complications
- Pre-hab delivered in community in preparation for treatment
- Recognise and manage all co-morbidities

Complex / severe disease

- Specialist consultant- and nurse-led palliative care and symptom control in community with named nurse
- Evidence-based oxygen prescribing and follow-up
- Planned hospital admission for those who need it
- Anticipatory care
- Knowledge and support for carers

High-cost / high-need patients

- Specialist palliative care in the community
- Access to indwelling pleural catheters with community support
- Well communicated fast-track discharges to support end-of-life care

End-of-life care

- Gold Standards Framework
- Access to appropriate place of care for end of life
- Support for preferred place of death

Smoking cessation, supported self-care to include maintaining healthy weight and activity levels

Strategies to reduce breathlessness including pulmonary rehabilitation, respiratory physiotherapy and occupational therapy/psychological support

Integrated social care and therapies aimed at enabling independent living

Supportive and palliative care

Education and clinical support for generalist healthcare professionals

Patient engagement, peer support and self-management. Quality Improvement

Respiratory Infections

Primary prevention

- Public health
- Healthy living
- Addressing health inequalities
- Parity of esteem
- Social factors
- Frailty
- Smoking cessation/ reduce passive smoking
- Environment
 - Pollution
 - Industrial
- Immunisations
- Optimising care for chronic disease
- Prevent hospital admission
- Winter planning
- Ethnic groups and foreign travel

Early, accurate and complete diagnosis of respiratory symptoms

- System awareness of managing respiratory infection
- Vital signs
- Pulse oximetry
- CRB-65
- Access to diagnostics - confirm diagnosis
- Managing comorbidities to enhance recovery
- Access to diagnostics - exclude underlying cause e.g. COPD
- Enhanced referral pathways to specialist support for diagnostic difficulty

Treatment and management of 1) chronic respiratory diseases in acute and stable phases 2) acute respiratory disease

- NICE and other validated guideline-based management
- Early, prompt and appropriate treatment
- Consider anti-microbial resistance
- Named specialist respiratory health care professional for episode of care
- Specialist medication reviews by community pharmacists
- Self-management education
- Anticipatory care
- Support for carers

Complex / severe disease

- NICE and other validated guideline-based management
- CRB-65 and consider hospital admission
- Early diagnosis of underlying cause of infection
- Hospital@Home/ supported care
- Managing comorbidities to enhance recovery
- Case management by appropriate case manager
- Evidence-based oxygen prescribing and follow-up
- Consultant- and nurse-led clinics with multidisciplinary team support (including physiotherapy, psychology, dietetics)

High-cost / high-need patients

- Admission avoidance through intermediate care
- Hospital admission
- Supported discharge to reduce length of stay
- Post-admission review to exclude diagnostic cause and optimise treatment of comorbidities
- Complex multi-morbidities and frailties

End-of-life care

- Gold Standards Framework
- Preferred place of care
- Do Not Attempt Resuscitation orders
- Treat infection according to patient preferences rather than clinical indicators
- Palliative drug box
- Appropriate oxygen
- Supportive treatments

Death certification

- Process to review death certification where lower respiratory tract infection is given as 'cause of death'
- Understand contributing underlying disease

Smoking cessation, supported self-care to include maintaining healthy weight and activity levels. Air quality.

Strategies to reduce breathlessness including pulmonary rehabilitation, respiratory physiotherapy and occupational therapy/psychological support

Integrated social care and therapies aimed at enabling independent living

Supportive and palliative care

Education and clinical support for generalist healthcare professionals

Patient engagement, peer support and self-management. Quality Improvement

Chronic obstructive pulmonary disease (COPD) - Community

Primary prevention

- Health promotion and education
- Education about smoking (cigarettes, e-cigarettes, cannabis) in general public and targeted at schools
- Physical activity promotion
- Air quality legislation

Early, accurate and complete diagnosis of respiratory symptoms

- Joint working with GP practices
- Case finding with smoking cessation and community pharmacists
- Supporting and upskilling GP practice staff in identifying and managing COPD
- Education on spirometry ensuring accurate performance and interpretation
- Education on management of COPD
- Promotion of available respiratory services
- Work with GP practices to ensure efficient referral pathways in place
- Encourage smoking cessation training by all healthcare professionals

Treatment and management of 1) chronic respiratory diseases in acute and stable phases 2) acute respiratory disease

- Pulmonary rehabilitation and ongoing exercise support/advice
- Inhaler technique
- Written self-management plans
- Appropriate respiratory prescribing, optimise pharmacotherapy
- Use of risk stratification to direct appropriate patient to appropriate resource
- Vaccination
- Anticipatory prescribing with appropriate education
- Disease education
- Signposting to British Lung Foundation
- Chest clearance, energy conservation techniques
- Smoking cessation

Complex / severe disease

- Integrated working with secondary care with shared care
- Oxygen assessment
- Non-invasive ventilation
- Consultant and multidisciplinary team specialist clinics - community- or hospital-based
- Consider carer support
- Psychological interventions and support
- Optimal management of comorbidities, liaise with other disease specialities

High-cost / high-need patients

- Admission avoidance and supported discharge using specialist respiratory teams or intermediate care
- Post-admission review in specialist consultant clinic and respiratory specialist practitioner clinics
- Joint working with social care

End-of-life care

- Referral to specialist teams and joint working with local hospice/palliative care teams
- Gold Standards Framework
- Breathlessness management

Smoking cessation, supported self-care to include maintaining healthy weight and activity levels. Air quality.

Strategies to reduce breathlessness including pulmonary rehabilitation, respiratory physiotherapy and occupational therapy/psychological support

Integrated social care and therapies aimed at enabling independent living

Supportive and palliative care

Education and clinical support for generalist healthcare professionals

Patient engagement, peer support and self-management. Quality Improvement