NICE National Institute for Health and Care Excellence

NICE quality standard

Chronic obstructive pulmonary disease in adults

Quality standard

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Contents

This standard is based on CG101.

This standard should be read in conjunction with QS82, QS13, QS15, QS25, QS43, QS79, QS92 and QS110.

Introduction and overview

Chronic obstructive pulmonary disease (COPD) is an overarching term used to describe a number of conditions including chronic bronchitis, emphysema, chronic obstructive airways disease and chronic airflow limitation. COPD is a chronic disorder characterised by consistent airflow obstruction and is associated with persistent and progressive breathlessness, a chronic productive cough and limited exercise capacity. The airflow obstruction is usually progressive, not fully reversible and does not change markedly over several months. About 900,000 people have diagnosed COPD. Prevalence increases with age (it is rare before 35 years of age) and is mostly associated with smoking. COPD remains the fifth most common cause of death in England and Wales, accounting for more than 28,000 deaths in 2005 and is the second largest cause of emergency admission in the UK, with one in eight (13,000) emergency admissions to hospital as a result of COPD. One fifth (21%) of bed days used for respiratory disease treatment are due to chronic obstructive lung disease, such that COPD accounts for more than one million 'bed days' each year in hospitals in the UK.

This quality standard covers the assessment, diagnosis and clinical management of chronic obstructive pulmonary disease (COPD) in adults. The scope of the quality standard does not include prevention, screening or case finding.

Introduction

This quality standard describes markers of high-quality, cost-effective care that, when delivered collectively, should contribute to improving the effectiveness, safety and experience of care for people with COPD in the following ways:

- Preventing people from dying prematurely.
- Enhancing quality of life for people with long-term conditions.
- Helping people to recover from episodes of ill health, or following injury.
- Ensuring that people have a positive experience of care.

- Treating and caring for people in a safe environment and protecting them from avoidable harm.

The NHS Outcomes Framework 2011/12 is available from www.gov.uk.

The quality standard is also expected to contribute to the following overarching indicators from the 2011/12 Adult Social Care Framework:

- Enhancing quality of life for people with care and support needs.
- Ensuring that people have a positive experience of care and support.
- Safeguarding adults whose circumstances make them vulnerable and protecting from avoidable harm.

This quality standard for COPD should be considered together with An Outcomes Strategy for COPD and Asthma in England and associated guidance. The quality standard and the Outcomes Strategy are complementary but serve different purposes.

The quality standard provides a set of clear statements describing high-quality care within the scope outlined above. It focuses on assessment, diagnosis and the treatment of diagnosed COPD. It is based on current NICE guidance and is consistent with the Outcomes Strategy for the areas it covers.

The Outcomes Strategy has a broader scope that also includes prevention, case finding, early detection and organisation of care. It sets out a vision for future services that is likely to require a significant change in emphasis for public health and NHS services. It is intended to improve the quality of care for people with suspected COPD as well as those with a confirmed diagnosis. As part of this focus, it recommends piloting certain interventions and strategies to determine the best ways of delivering different models of care.

Both this quality standard and the Outcomes Strategy, and commissioning guidance associated with them, should be used by commissioners to make improvements in the full range of COPD services.

Overview

The quality standard for chronic obstructive pulmonary disease (COPD) requires that services should be commissioned from and coordinated across all relevant agencies encompassing the whole COPD care pathway. An integrated approach to provision of services is fundamental to the delivery of high-quality care to people with COPD. This should be considered together with An

Outcomes Strategy for COPD and Asthma in England and associated guidance. The quality standard and the Outcomes Strategy are complementary but serve different purposes.

NICE quality standards are for use by the NHS in England and do not have formal status in the social care sector. However, the NHS will not be able to provide a comprehensive service for all without working with social care communities. In this quality standard care has been taken to make sure that any quality statements that refer to the social care sector are relevant and evidence-based. Social care commissioners and providers may therefore wish to use them, both to improve the quality of their services and support their colleagues in the NHS.

Subject to legislation currently before Parliament, NICE will be given a brief to produce quality standards for social care. These standards will link with corresponding topics published for the NHS. They will be developed in full consultation with the social care sector and will be presented and disseminated in ways that meet the needs of the social care community. As we develop this library of social care standards, we will review and adapt any published NICE quality standards for the NHS that make reference to social care.

List of statements

Statement 1. People with COPD have one or more indicative symptoms recorded, and have the diagnosis confirmed by post-bronchodilator spirometry carried out on calibrated equipment by healthcare professionals competent in its performance and interpretation.

Statement 2. People with COPD have a current individualised comprehensive management plan, which includes high-quality information and educational material about the condition and its management, relevant to the stage of disease.

Statement 3. People with COPD are offered inhaled and oral therapies, in accordance with NICE guidance, as part of an individualised comprehensive management plan.

Statement 4. People with COPD have a comprehensive clinical and psychosocial assessment, at least once a year or more frequently if indicated, which includes degree of breathlessness, frequency of exacerbations, validated measures of health status and prognosis, presence of hypoxaemia and comorbidities.

Statement 5. People with COPD who smoke are regularly encouraged to stop and are offered the full range of evidence-based smoking cessation support.

Statement 6. People with COPD meeting appropriate criteria are offered an effective, timely and accessible multidisciplinary pulmonary rehabilitation programme.

Statement 7. People who have had an exacerbation of COPD are provided with individualised written advice on early recognition of future exacerbations, management strategies (including appropriate provision of antibiotics and corticosteroids for self-treatment at home) and a named contact.

Statement 8. People with COPD potentially requiring long-term oxygen therapy are assessed in accordance with NICE guidance by a specialist oxygen service.

Statement 9. People with COPD receiving long-term oxygen therapy are reviewed in accordance with NICE guidance, at least annually, by a specialist oxygen service as part of the integrated clinical management of their COPD.

Statement 10. People admitted to hospital with an exacerbation of COPD are cared for by a respiratory team, and have access to a specialist early supported-discharge scheme with appropriate community support.

Statement 11. People admitted to hospital with an exacerbation of COPD and with persistent acidotic ventilatory failure are promptly assessed for, and receive, non-invasive ventilation delivered by appropriately trained staff in a dedicated setting.

Statement 12. People admitted to hospital with an exacerbation of COPD are reviewed within 2 weeks of discharge.

Statement 13. People with advanced COPD, and their carers, are identified and offered palliative care that addresses physical, social and emotional needs.

In addition, quality standards that should also be considered when commissioning and providing a high-quality COPD service are listed in related NICE quality standards.

Quality statement 1: Diagnosis

Quality statement

People with COPD have one or more indicative symptoms recorded, and have the diagnosis confirmed by post-bronchodilator spirometry carried out on calibrated equipment by healthcare professionals competent in its performance and interpretation.

Quality measure

Structure:

a) Evidence of local arrangements to ensure that clinical diagnoses of COPD include a record of one or more indicative symptoms.

b) Evidence of local arrangements to ensure that people diagnosed with COPD have the diagnosis confirmed by post-bronchodilator spirometry.

c) Evidence of local arrangements to ensure that post-bronchodilator spirometry is carried out on correctly calibrated equipment.

d) Evidence of local arrangements to ensure that those carrying out post-bronchodilator spirometry are competent in its performance and interpretation.

Process:

a) Proportion of people with COPD who have one or more indicative symptoms recorded.

Numerator – the number of people in the denominator with one or more indicative symptoms recorded.

Denominator – the number of people with COPD.

b) Proportion of people with COPD who have the diagnosis confirmed by post-bronchodilator spirometry.

Numerator – the number of people in the denominator who have confirmatory post-bronchodilator spirometry.

Denominator – the number of people with COPD.

What the quality statement means for each audience

Service providers ensure diagnoses of COPD include a record of one or more indicative symptoms, and are confirmed by post-bronchodilator spirometry carried out on calibrated equipment by healthcare professionals competent in its performance and interpretation.

Healthcare professionals ensure that people diagnosed with COPD have a record of one or more indicative symptoms and confirmatory post-bronchodilator spirometry. Those carrying out spirometry ensure that the equipment is calibrated and that they are competent in its performance and interpretation.

Commissioners ensure they commission services that record one or more indicative symptoms when diagnosing COPD, and confirm diagnoses of COPD with post-bronchodilator spirometry carried out on calibrated equipment by healthcare professionals competent in its performance and interpretation.

People with COPD are identified by having at least one symptom of COPD (such as breathlessness, long-lasting cough or often coughing up phlegm) and have their diagnosis confirmed by a trained healthcare professional using specialist equipment to test how well the lungs work.

Source guidance

NICE clinical guideline 101 recommendations 1.1.1.1 (key priority for implementation), 1.1.1.2, 1.1.2.2 and 1.1.2.4 (key priority for implementation).

Data source

Structure: a) to d) Local data collection.

Process:

a) Local data collection.

b) The percentage of all patients with COPD diagnosed after 1 April 2008 in whom the diagnosis has been confirmed by post-bronchodilator spirometry. Available from Quality and Outcomes Framework indicator COPD 12.

Definitions

Indicative symptoms include but are not limited to:

- exertional breathlessness
- chronic cough
- regular sputum production
- frequent winter 'bronchitis'.

Quality statement 2: Management planning

Quality statement

People with COPD have a current individualised comprehensive management plan, which includes high-quality information and educational material about the condition and its management, relevant to the stage of disease.

Quality measure

Structure: Evidence of local arrangements to provide people with COPD an individualised comprehensive management plan, which includes high-quality information and educational material about the condition and its management, relevant to the stage of disease.

Process: Proportion of people with COPD who have a current individualised comprehensive management plan, which includes high-quality information and educational material about the condition and its management, relevant to the stage of disease.

Numerator – the number of people in the denominator who have a current individualised comprehensive management plan, which includes high-quality information and educational material about the condition and its management, relevant to the stage of disease.

Denominator – the number of people with COPD.

What the quality statement means for each audience

Service providers ensure systems are in place to provide people with COPD individualised comprehensive management plans, and ensure that information and educational material about the condition and its management is of high quality.

Healthcare professionals ensure that people with COPD have a current individualised comprehensive management plan, which includes high-quality information and educational material about the condition and its management, relevant to the stage of disease.

Commissioners ensure services are commissioned that provide people with COPD with individualised comprehensive management plans, which include high-quality information and educational material about the condition and its management, relevant to the stage of disease.

People with COPD have an up-to-date, individually tailored care plan, which includes information and advice about their condition and how it will be managed, relevant to their stage of the disease.

Source guidance

NICE clinical guideline 101 recommendation 1.2.12.19.

Data source

Structure: Local data collection.

Process: Local data collection.

Definitions

Appendix C of the full National Clinical Guideline Centre COPD clinical guideline suggests the following topics for inclusion in educational packages:

- disease education (anatomy, physiology, pathology and pharmacology, including oxygen therapy and vaccination)
- dyspnoea/symptom management, including chest clearance techniques
- smoking cessation
- energy conservation/pacing
- nutritional advice
- managing travel
- benefits system and disabled parking badges
- advance directives (living wills)
- making a change plan
- anxiety management
- goal setting and rewards
- relaxation

- identifying and changing beliefs about exercise and health-related behaviours
- loving relationships/sexuality
- exacerbation management (including when to seek help, self-management and decision making, coping with setbacks and relapses)
- home care support
- managing surgery (non thoracic)
- the benefits of physical exercise
- support groups – such as the British Lung Foundation Breathe Easy groups, which operate throughout the UK.

Quality statement 3: Inhaled and oral therapies

Quality statement

People with COPD are offered inhaled and oral therapies, in accordance with NICE guidance, as part of an individualised comprehensive management plan.

Quality measure

Structure:

a) Evidence of local arrangements to ensure that healthcare professionals prescribing inhaled and oral therapies follow NICE guidance.

b) Evidence of local arrangements to ensure that inhaled and oral therapies are prescribed as part of an individualised comprehensive management plan.

Process:

a) Proportion of people with COPD who are offered inhaled and oral therapies in accordance with NICE guidance.

Numerator – the number of people in the denominator offered inhaled and oral therapies in accordance with NICE guidance.

Denominator – the number of people with COPD.

b) Proportion of people with COPD who receive their inhaled and oral therapies as part of an individualised comprehensive management plan.

Numerator – the number of people in the denominator receiving their inhaled and oral therapies as part of an individualised comprehensive plan.

Denominator – the number of people with COPD receiving inhaled and oral therapies.

What the quality statement means for each audience

Service providers ensure systems are in place to ensure inhaled and oral therapies are offered in accordance with NICE guidance as part of an individualised comprehensive management plan.

Healthcare professionals ensure they offer inhaled and oral therapies in accordance with NICE guidance as part of an individualised comprehensive management plan.

Commissioners ensure they commission services that offer inhaled and oral therapies in accordance with NICE guidance as part of an individualised comprehensive management plan.

People with COPD are offered medicines taken through the mouth (oral) or breathed in (inhaled) as part of an individually tailored care plan.

Source guidance

NICE clinical guideline 101 sections 1.2.2, 1.2.3 and 1.2.4 (includes two key priorities for implementation, 1.2.2.6 and 1.2.2.8.)

Data source

Structure: a) and b) Local data collection.

Process: a) and b) Local data collection

Definitions

Offers of inhaled and oral therapies will be in accordance with NICE guidance, if they follow the sequence of therapies as described in NICE clinical guideline 101 sections 1.2.2 to 1.2.4. The guideline also provides this sequence in a diagram form in Appendix C algorithm 2a.

Quality statement 4: Annual comprehensive assessment

Quality statement

People with COPD have a comprehensive clinical and psychosocial assessment, at least once a year or more frequently if indicated, which includes degree of breathlessness, frequency of exacerbations, validated measures of health status and prognosis, presence of hypoxaemia and comorbidities.

Quality measure

Structure:

a) Evidence of local arrangements to ensure that people with COPD have a comprehensive clinical and psychosocial assessment at least once a year, or more frequently if indicated.

b) Evidence of local arrangements to ensure that clinical and psychosocial assessments include degree of breathlessness, frequency of exacerbations, validated measures of health status and prognosis, presence of hypoxaemia and comorbidities.

Process: Proportion of people with COPD who had a comprehensive clinical and psychosocial assessment in the previous 12 months which includes degree of breathlessness, frequency of exacerbations, validated measures of health status and prognosis, presence of hypoxaemia and comorbidities.

Numerator – the number of people in the denominator who had a comprehensive clinical and psychosocial assessment in the previous 12 months which includes degree of breathlessness, frequency of exacerbations, validated measures of health status and prognosis, presence of hypoxaemia and comorbidities.

Denominator – the number of people with COPD.

What the quality statement means for each audience

Service providers ensure systems are in place for the comprehensive clinical and psychosocial assessment of people with COPD at least once a year, or more frequently if indicated. The assessment should include the degree of breathlessness, frequency of exacerbations, validated measures of health status and prognosis, presence of hypoxaemia and comorbidities.

Healthcare professionals ensure that clinical and psychosocial assessments of people with COPD include degree of breathlessness, frequency of exacerbations, validated measures of health status and prognosis, presence of hypoxaemia and comorbidities.

Commissioners ensure they commission services that provide clinical and psychosocial assessments at least once a year, or more frequently if indicated, for people with COPD that include degree of breathlessness, frequency of exacerbations, validated measures of health status and prognosis, presence of hypoxaemia and comorbidities.

People with COPD have a full assessment at least once a year, or more frequently if necessary, which includes measuring breathlessness, frequency of flare-ups, checking current health and predicting future problems, and checking for other related conditions.

Source guidance

NICE clinical guideline 101 recommendations 1.1.5.1, 1.2.14.2 and 1.2.14.4.

Data source

Structure: a) and b) Local data collection.

Process: Local data collection. GP practices can analyse data collected for Quality and Outcomes Framework indicator COPD13: the percentage of patients with COPD who have had a review, undertaken by a healthcare professional, including an assessment of breathlessness using the Medical Research Council (MRC) dyspnoea scale in the preceding 15 months.

Definitions

People with very severe COPD reviewed in primary care should be reviewed at least twice a year.

A comprehensive clinical and psychosocial assessment should include, but is not limited to, the following:

- body mass index
- degree of breathlessness (using for example, MRC dyspnoea score)
- frequency and severity of exacerbations

- health status (using for example, the COPD assessment tool [CAT] or St George's respiratory questionnaire [SGRQ])
- prognosis (using for example, the BODE index, DOSE or ADO index)
- presence of hypoxaemia and possible need for oxygen therapy
- presence of comorbidities
- psychological assessment for anxiety and depression (using for example the Hospital Anxiety and Depression Score [HADS])
- need for pulmonary rehabilitation
- need for referral to specialist and therapy services
- inhaler technique
- smoking status and desire to quit
- post-bronchodilator spirometry.

Quality statement 5: Smoking cessation support

Quality statement

People with COPD who smoke are regularly encouraged to stop and are offered the full range of evidence-based smoking cessation support.

Quality measure

Structure:

a) Evidence of local arrangements to ensure that people with COPD who smoke are regularly encouraged to stop.

b) Evidence of local arrangements to provide the full range of evidence-based smoking cessation support.

Process: Proportion of people with COPD who smoke who are offered the full range of evidence-based smoking cessation support.

Numerator – the number of people in the denominator offered the full range of evidence-based smoking cessation support.

Denominator – the number of people with COPD who smoke.

Outcome: Smoking quit-rate for people with COPD attending NHS stop-smoking services

What the quality statement means for each audience

Service providers ensure systems are in place to regularly encourage people with COPD who smoke to stop smoking, and that the full range of evidence-based smoking cessation support is available.

Healthcare professionals ensure they regularly encourage people with COPD who smoke to stop smoking, and offer the full range of evidence-based smoking cessation support.

Commissioners ensure they commission services to provide the full range of evidence-based smoking cessation support.

People with COPD who smoke are regularly encouraged to stop and offered support to stop smoking.

Source guidance

NICE clinical guideline 101 recommendation 1.2.1.2 (key priority for implementation).

Data source

Structure: a) and b) Local data collection.

Process: Local data collection. GP practices can analyse data collected for Quality and Outcomes Framework indicator SMOKING4. This is the percentage of patients with any (or any combination of) the following conditions: coronary heart disease, stroke or TIA, hypertension, diabetes, COPD, CKD, asthma, schizophrenia, bipolar affective disorder or other psychoses, who smoke and whose notes contain a record that smoking cessation advice or referral to a specialist service, where available, has been offered within the previous 15 months.

Outcome: Local data collection. Information on 4-week smoking quit-rates for all people attending NHS smoking cessation services is collected in Vital Signs as VSB05 (also included in National Indicator Set NI123).

Definitions

Local services should agree the time periods to monitor quit rates, for example 4-week or 12-month. NICE public health guidance 10 recommends auditing 4-week quit rates.

Quality statement 6: Pulmonary rehabilitation

Quality statement

People with COPD meeting appropriate criteria are offered an effective, timely and accessible multidisciplinary pulmonary rehabilitation programme.

Quality measure

Structure:

a) Evidence of local arrangements to provide multidisciplinary pulmonary rehabilitation programmes.

b) Evidence of local arrangements to ensure effectiveness of multidisciplinary pulmonary rehabilitation programmes, by collection and audit of health outcome data.

c) Evidence of local arrangements to ensure multidisciplinary pulmonary rehabilitation programmes can be accessed in a timely manner.

d) Evidence of local arrangements to ensure multidisciplinary pulmonary rehabilitation programmes are geographically accessible.

Process: Proportion of people with COPD meeting appropriate criteria who receive an effective, timely and accessible multidisciplinary pulmonary rehabilitation programme.

Numerator – the number of people in the denominator receiving an effective, timely and accessible multidisciplinary pulmonary rehabilitation programme.

Denominator – the number of people with COPD meeting appropriate criteria for pulmonary rehabilitation.

Outcome:

a) Improvements in exercise capacity as measured by a validated field exercise test, for example the 6-minute walk test or the incremental shuttle walking test.

b) Improvements in health-related quality of life measured by a validated questionnaire, for example St George's Respiratory Questionnaire (SGRQ).

What the quality statement means for each audience

Service providers ensure multidisciplinary pulmonary rehabilitation programmes are timely and accessible, and that health outcomes are monitored to ensure their effectiveness.

Healthcare professionals ensure they offer pulmonary rehabilitation to appropriate people with COPD.

Commissioners ensure they commission timely and accessible multidisciplinary pulmonary rehabilitation programmes, and that health outcomes are monitored to ensure their effectiveness.

People with COPD are offered a programme of care, called pulmonary rehabilitation, that is designed for the person with their full involvement to help restore health, if they are likely to benefit from it.

Source guidance

NICE clinical guideline 101 recommendations 1.2.8.1 (key priority for implementation) and 1.2.8.2 to 1.2.8.4

Data sources

Structure:

a) The national COPD audit of 'acute care resources and organisation of care' examines access to a formal pulmonary rehabilitation programme and whether it is delivered by a multidisciplinary team. The national COPD audit of 'primary care resources and organisation of care' examines, at an organisation level, access to community pulmonary rehabilitation services.

b) The national COPD audit of 'acute care resources and organisation of care' examines whether pulmonary rehabilitation programmes measure health status before and after pulmonary rehabilitation.

c) and d) Local data collection.

Process: Local data collection.

Outcome: a) and d) Local data collection.

Definitions

NICE clinical guideline 101 states that pulmonary rehabilitation should be offered to all patients who consider themselves functionally disabled by COPD (usually MRC grade 3 and above). This includes those who have had a recent hospitalisation for an acute exacerbation. Pulmonary rehabilitation is not suitable for those who are unable to walk, have unstable angina or who have had a recent myocardial infarction.

Quality statement 7: Management of exacerbations

Quality statement

People who have had an exacerbation of COPD are provided with individualised written advice on early recognition of future exacerbations, management strategies (including appropriate provision of antibiotics and corticosteroids for self-treatment at home) and a named contact.

Quality measure

Structure: Evidence of local arrangements to provide people who have had an exacerbation of COPD with individualised written advice on early recognition of future exacerbations, management strategies (including appropriate provision of antibiotics and corticosteroids for self-treatment at home) and a named contact.

Process: Proportion of people who have had an exacerbation of COPD who are given individualised written advice on early recognition of future exacerbations, management strategies (including appropriate provision of antibiotics and corticosteroids for self-treatment at home) and a named contact.

Numerator – the number of people in the denominator given individualised written advice on early recognition of future exacerbations, management strategies (including appropriate provision of antibiotics and corticosteroids for self-treatment at home) and a named contact.

Denominator – the number of people who have had an exacerbation of COPD.

What the quality statement means for each audience

Service providers ensure systems are in place to make sure people who have had an exacerbation of COPD are given individualised written advice on early recognition of future exacerbations, management strategies (including appropriate provision of antibiotics and corticosteroids for self-treatment at home) and a named contact.

Healthcare professionals ensure people who have had an exacerbation of COPD are given individualised written advice on early recognition of future exacerbations, management strategies (including appropriate provision of antibiotics and corticosteroids for self-treatment at home) and a named contact.

Commissioners ensure they commission services that provide individualised written advice on early recognition of future exacerbations, management strategies (including appropriate provision of antibiotics and corticosteroids for self-treatment at home) and a named contact to people who have had an exacerbation of COPD.

People who have had a flare-up of COPD are given written advice, tailored to the individual, to help them recognise future flare-ups early; a plan for managing flare-ups at home (including having antibiotics and corticosteroids to use at home if appropriate); and the name and details of a healthcare professional to contact.

Source guidance

NICE clinical guideline 101 recommendations 1.2.12.21 to 1.2.12.25 (key priorities for implementation).

Data source

Structure: Local data collection.

Process: Local data collection. The national COPD audit patient survey examines, at a patient level, whether they have been provided with a written plan for when their chest gets bad.

The national COPD audit GP survey examines, at a patient level, the provision of antibiotic rescue packs.

Definitions

Not all people will be eligible or appropriate for provision of antibiotics and corticosteroids for self-treatment at home. NICE clinical guideline 101 recommendation 1.2.12.24 states that appropriate use of antibiotic and corticosteroids should be monitored.

Quality statement 8: Initial assessment for long-term oxygen therapy

Quality statement

People with COPD potentially requiring long-term oxygen therapy are assessed in accordance with NICE guidance by a specialist oxygen service.

Quality measure

Structure: Evidence of local arrangements, to ensure that people with COPD potentially requiring long-term oxygen therapy (LTOT) are assessed in accordance with NICE guidance by a specialist oxygen service.

Process: Proportion of people with COPD with oxygen saturation less than or equal to 92% when stable, who are assessed for LTOT in accordance with NICE guidance by a specialist oxygen service.

Numerator – the number of people in the denominator assessed for LTOT in accordance with NICE guidance by a specialist oxygen service.

Denominator – the number of people with COPD with oxygen saturation less than or equal to 92% when stable.

It is noted that an assessment for long-term oxygen therapy should be considered in a range of clinical circumstances and not only for people with less than or equal to 92% oxygen saturation when stable (please see definitions section). However, to aid measurability, the specific population of those with less than or equal to 92% oxygen saturation when stable has been chosen.

What the quality statement means for each audience

Service providers ensure systems are in place for a specialist oxygen service to assess all people with COPD potentially requiring LTOT in accordance with NICE guidance.

Healthcare professionals ensure people with COPD potentially requiring LTOT are referred to a specialist oxygen service for assessment in accordance with NICE guidance.

Commissioners ensure they commission a specialist oxygen service to assess people with COPD who potentially require LTOT, in accordance with NICE guidance.

People with COPD potentially requiring long-term oxygen therapy are assessed by a specialist oxygen service.

Source guidance

NICE clinical guideline 101 section 1.2.5.

Data source

Structure: Local data collection. The national COPD audit of 'acute care resources and organisation of care' examines, at unit level, the provision of LTOT services.

Process: Local data collection.

Definitions

NICE clinical guideline 101 section 1.2.5 contains criteria for the appropriate assessment for and provision of long-term oxygen therapy.

Recommendation 1.2.5.4 states people potentially requiring long-term oxygen therapy are:

- all patients with very severe airflow obstruction (FEV_1 < 30% predicted)
- patients with cyanosis
- patients with polycythaemia
- patients with peripheral oedema
- patients with a raised jugular venous pressure
- patients with oxygen saturations ≤ 92% breathing air.

Assessment should also be considered in patients with severe airflow obstruction (FEV1 30–49% predicted).

Quality statement 9: Review of long-term oxygen therapy

Quality statement

People with COPD receiving long-term oxygen therapy are reviewed in accordance with NICE guidance, at least annually, by a specialist oxygen service as part of the integrated clinical management of their COPD.

Quality measure

Structure: Evidence of local arrangements to ensure that people with COPD receiving long-term oxygen therapy (LTOT) are reviewed in accordance with NICE guidance, at least annually, by a specialist oxygen service as part of the integrated clinical management of their COPD.

Process: Proportion of people with COPD receiving LTOT, who have had a review in the previous 12 months by a specialist oxygen service in accordance with NICE guidance, as part of the integrated clinical management of their COPD.

Numerator – the number of people in the denominator reviewed in the previous 12 months by a specialist oxygen service in accordance with NICE guidance, as part of the integrated clinical management of their COPD.

Denominator – the number of people with COPD receiving LTOT.

What the quality statement means for each audience

Service providers ensure systems are in place for a specialist oxygen service to annually review people with COPD receiving LTOT in accordance with NICE guidance and as part of integrated clinical management.

Healthcare professionals ensure people with COPD receiving LTOT are reviewed by a specialist oxygen service in accordance with NICE guidance, at least annually, as part of the integrated clinical management of their COPD.

Commissioners ensure they commission specialist oxygen services to annually review people with COPD receiving LTOT in accordance with NICE guidance, and as part of the integrated clinical management of their COPD.

People with COPD who are receiving long-term oxygen therapy have this reviewed at least once a year by a specialist oxygen service.

Source guidance

NICE clinical guideline 101 recommendation 1.2.5.7.

Data source

Structure: Local data collection.

Process: Local data collection.

Definitions

NICE clinical guideline 101 section 1.2.5 contains recommendations on reviewing people receiving LTOT.

Quality statement 10: Care in hospital

Quality statement

People admitted to hospital with an exacerbation of COPD are cared for by a respiratory team, and have access to a specialist early supported-discharge scheme with appropriate community support.

Quality measure

Structure:

a) Evidence of local arrangements to ensure people with COPD admitted to hospital with an exacerbation are cared for by a respiratory team.

b) Evidence of local arrangements to provide a specialist early supported discharge scheme, with appropriate community support, for people with COPD admitted to hospital with an exacerbation.

Process:

a) Proportion of people with COPD admitted to hospital with an exacerbation who are cared for by a respiratory team.

Numerator – the number of people in the denominator cared for by a respiratory team.

Denominator – the number of people with COPD admitted to hospital with an exacerbation.

b) Proportion of people with COPD admitted to hospital with an exacerbation, and who meet the criteria for early supported discharge, who are placed on a specialist early supported discharge scheme with appropriate community support.

Numerator – the number of people in the denominator placed on a specialist early supported discharge scheme with appropriate community support.

Denominator – the number of people with COPD admitted to hospital with an exacerbation and meeting the criteria for early supported discharge.

Outcome: Reduction in mean length of stay of people admitted to hospital with an exacerbation of COPD.

What the quality statement means for each audience

Service providers ensure systems are in place to make sure people admitted to hospital with an exacerbation of COPD are cared for by a respiratory team, and have access to a specialist early supported discharge scheme with appropriate community support.

Healthcare professionals ensure that people admitted to hospital with an exacerbation of COPD are cared for by a respiratory team and, if they meet appropriate criteria, are placed on a specialist early supported discharge scheme with appropriate community support.

Commissioners ensure they commission services to make sure people admitted to hospital with an exacerbation of COPD are cared for by a respiratory team, and that there is access to a specialist early supported discharge scheme with appropriate community support.

People admitted to hospital with a flare-up of COPD are cared for by a respiratory team and are considered for a scheme involving a shorter stay in hospital with extra support at home.

Source guidance

NICE clinical guideline 101 recommendations 1.3.4.1 (key priority for implementation) and 1.3.4.3

Data source

Structure:

a) Local data collection.

b) The national COPD audit of 'acute care resources and organisation of care' examines, at a unit level, the provision of an early discharge scheme and the healthcare professionals directly involved with scheme.

Process:

a) The national COPD audit of 'admitted exacerbations' examines, at a patient level, the number of patients seen by a respiratory specialist during admission.

b) The national COPD audit of 'admitted exacerbations' examines, at a patient level, the number of patients accepted onto an early discharge scheme.

Outcome: Local data collection. The admitted patient care commissioning datasets contain the data needed for calculating length of stay for people admitted to hospital with an exacerbation of COPD. Data available via HES Online.

Definitions

National quality guidance for early supported discharge is contained within the NICE commissioning guide on services for people with COPD.

Quality statement 11: Non-invasive ventilation in hospital

Quality statement

People admitted to hospital with an exacerbation of COPD and with persistent acidotic ventilatory failure are promptly assessed for, and receive, non-invasive ventilation delivered by appropriately trained staff in a dedicated setting.

Quality measure

Structure:

a) Evidence of local arrangements for the prompt assessment and delivery of non-invasive ventilation (NIV) to people admitted to hospital with an exacerbation of COPD and persistent acidotic ventilatory failure.

b) Evidence of local arrangements to ensure that people admitted to hospital and receiving NIV for an exacerbation of COPD and persistent acidotic ventilatory failure, have NIV delivered by appropriately trained staff in a dedicated setting.

Process:

a) Proportion of people admitted to hospital with an exacerbation of COPD and with persistent acidotic ventilatory failure, who are promptly assessed for NIV, and for whom any subsequent delivery is promptly undertaken.

Numerator – the number of people in the denominator promptly assessed for NIV, and for whom any subsequent delivery is promptly undertaken.

Denominator – the number of people admitted to hospital with an exacerbation of COPD and persistent acidotic ventilatory failure.

b) Proportion of people admitted to hospital and receiving NIV for an exacerbation of COPD and persistent acidotic ventilatory failure, who have it delivered by appropriately trained staff in a dedicated setting.

Numerator – the number of people in the denominator having NIV delivered by appropriately trained staff in a dedicated setting.

Denominator – the number of people admitted to hospital receiving NIV for an exacerbation of COPD and persistent acidotic ventilatory failure.

Outcome:

a) Reduction in hospital mortality rate of patients admitted with an exacerbation of COPD.

b) Reduction in median length of stay of patients admitted with an exacerbation of COPD.

c) Reduction in complications, specifically ventilator-associated pneumonia.

d) Reduction in the need for intubation.

What the quality statement means for each audience

Service providers ensure systems are in place for the prompt assessment and delivery of NIV to people admitted to hospital with an exacerbation of COPD and with persistent acidotic ventilatory failure. Ensure systems are in place for delivering NIV in a dedicated setting by appropriately trained staff.

Healthcare professionals ensure that people admitted to hospital with an exacerbation of COPD and with persistent acidotic ventilatory failure are promptly assessed, and receive NIV delivered by appropriately trained staff in a dedicated setting.

Commissioners ensure they commission services to promptly assess people admitted to hospital with an exacerbation of COPD and with persistent acidotic ventilatory failure for NIV, and deliver it through appropriately trained staff in a dedicated setting.

People admitted to hospital with a flare-up of COPD, who are not getting enough oxygen into their blood and not breathing deeply enough despite having the right type of medicines, are promptly assessed for a treatment called 'non-invasive ventilation'. This is an emergency treatment given by trained staff in hospital that involves wearing a mask connected to a machine that pumps oxygen into the lungs.

Source guidance

NICE clinical guideline 101 recommendations 1.3.7.1 and 1.3.7.2 (key priorities for implementation).

Data source

Structure:

a) Local data collection.

b) The national COPD audit of 'acute care resources and organisation of care' examines, at a unit level, the provision of NIV services within dedicated settings and the training of staff delivering NIV.

Process:

a) Local data collection. The national COPD audit of 'admitted exacerbations' examines, at a patient level, whether NIV was given and the reasons for not ventilating.

b) Local data collection.

Outcome: The admitted patient care commissioning datasets contain the data needed for calculating (in patients admitted with exacerbations of COPD) the number receiving NIV, the number of deaths in hospital, the number receiving intubation and the median length of stay.

The office of populations, censuses and surveys classification of surgical operations and procedures (OPCS-4) code for NIV is E85.2. The OPCS-4 code for invasive ventilation is E85.1. The ICD-10 code for COPD with acute exacerbation is J44.1.

Data available via HES Online.

Definitions

A designated setting is one where staff have been specifically trained in NIV. For example intensive care units, high-dependency units, emergency admissions units or dedicated respiratory wards.

Prompt assessment and receipt of NIV should be defined as:

- assessment and receipt of NIV within 3 hours of presentation, and
- receipt of NIV within 1 hour of the decision being made to administer NIV.

Quality statement 12: Review within 2 weeks of discharge

Quality statement

People admitted to hospital with an exacerbation of COPD are reviewed within 2 weeks of discharge.

Quality measure

Structure: Evidence of local arrangements to ensure that people admitted to hospital with an exacerbation of COPD are reviewed within 2 weeks of discharge.

Process: Proportion of people discharged from hospital following an admission with an exacerbation of COPD, who are reviewed within 2 weeks of discharge.

Numerator – the number of people in the denominator reviewed within 2 weeks of discharge.

Denominator – the number of people discharged from hospital following admission with an exacerbation of COPD.

What the quality statement means for each audience

Service providers ensure systems are in place to make sure that people admitted to hospital with an exacerbation of COPD are reviewed within 2 weeks of discharge.

Healthcare professionals ensure that people being discharged from hospital following admission, with an exacerbation of COPD, have arrangements for a review within 2 weeks.

Commissioners ensure they commission services to review people admitted to hospital with an exacerbation of COPD within 2 weeks of discharge.

People admitted to hospital with a flare-up of COPD are checked within 2 weeks of leaving hospital.

Source guidance

NICE clinical guideline 101 recommendation 1.3.10.1.

Data source

Structure: Local data collection.

Process: Local data collection.

Definitions

Local services and commissioners should agree the specific service arrangements for reviewing patients within 2 weeks of discharge, following an admission with an exacerbation of COPD. This review may take place in primary or secondary care depending on local agreement.

Quality statement 13: Palliative care

Quality statement

People with advanced COPD, and their carers, are identified and offered palliative care that addresses physical, social and emotional needs.

Quality measure

Structure:

a) Evidence of local arrangements to ensure that people with advanced COPD, and their carers, are identified and offered palliative care.

b) Evidence of local arrangements to ensure that palliative care is provided for people with advanced COPD and their carers, and addresses physical, social and emotional needs.

Process: Proportion of people with advanced COPD, and their carers, who receive palliative care that addresses physical, social and emotional needs.

Numerator – the number of people in the denominator receiving palliative care that addresses physical, social and emotional needs.

Denominator – the number of people with advanced COPD, and their carers, identified as needing palliative care.

What the quality statement means for each audience

Service providers ensure systems are in place to identify people with advanced COPD and their carers, and offer palliative care that addresses physical, social and emotional needs.

Healthcare professionals ensure they identify people with advanced COPD and their carers, through prognostic indicators and offer palliative care that addresses physical, social and emotional needs.

Commissioners ensure they commission services to provide palliative care to people with advance COPD that addresses physical, social and emotional needs.

People with advanced COPD and their carers are offered palliative care (which is care in the later stages of the disease to make the person as comfortable as possible) that addresses their physical, social and emotional needs.

Source guidance

NICE clinical guideline 101 recommendation 1.2.12.10.

Data source

Structure:

a) The national COPD audit of 'acute care resources and organisation of care' examines, at a unit level, the provision of palliative care services and information on end-of-life care for people with advanced COPD. The national COPD audit of 'primary care resources and organisation of care' examines, at an organisational level, access to palliative care services.

b) Local data collection. GP practices collect data on the completeness of a palliative care register for QOF PC3 – 'the practice has a complete register available of all patients in need of palliative care/support irrespective of age'.

Process: Local data collection. GP practices collect data on case review meetings for Quality and Outcomes Framework indicator PC2: the practice has regular (at least 3 monthly) multidisciplinary case review meetings where all patients on the palliative care register are discussed.

Definitions

Indicative markers for people who are likely to benefit from palliative care include but are not limited to:

- severe airflow obstruction (FEV_1 <30% predicted)
- respiratory failure
- low BMI (less than 19)
- house bound (MRC dyspnoea score 5)
- history of two or more admissions for exacerbations during the previous year

- need for non-invasive ventilation for an acute exacerbation
- eligibility for long-term home oxygen therapy.

Using the quality standard

It is important that the quality standard is considered alongside current policy and guidance documents listed in the development sources section.

Commissioning support and information for patients

NICE has produced a support document to help commissioners and others consider the commissioning implications and potential resource impact of this quality standard. Information for patients using the quality standard is also available on the NICE website. A full commissioning guide on commissioning services for people with chronic obstructive pulmonary disease, that supports the local implementation of NICE guidance is also available.

Quality measures and national indicators

The quality measures accompanying the quality statements aim to improve the structure, process and outcomes of healthcare. They are not a new set of targets or mandatory indicators for performance management.

Expected levels of achievement for quality measures are not specified. Quality standards are intended to drive up the quality of care, and so aspirational achievement levels are likely to be 100% (or 0% if the quality statement states that something should not be done). However, it is recognised that this may not always be appropriate in practice taking account of patient safety, patient choice and clinical judgement and therefore desired levels of achievement should be defined locally.

We have indicated where national indicators currently exist and measure the quality statement. National indicators include those developed by the NHS Information Centre through their Indicators for Quality Improvement Programme. For statements where national quality indicators do not exist, the quality measures should form the basis for audit criteria developed and used locally to improve the quality of healthcare.

For further information, including guidance on using quality measures, please see What makes up a NICE quality standard.

Diversity, equality and language

During the development of this quality standard, equality issues were considered.

Good communication between healthcare professionals and people with COPD is essential. Treatment and care, and the information given about it, should be culturally appropriate. It should also be accessible to people with additional needs such as physical, sensory or learning disabilities, and to people who do not speak or read English. People with COPD should have access to an interpreter or advocate if needed.

Development sources

Evidence sources

The documents below contain clinical guideline recommendations or other recommendations that were used by the TEG to develop the quality standard statements and measures.

Chronic obstructive pulmonary disease: management of chronic obstructive pulmonary disease in adults in primary and secondary care. NICE clinical guideline 101 (2010; NHS Evidence accredited).

Policy context

It is important that the quality standard is considered alongside current policy documents, including:

Department of Health (2011) An Outcomes Strategy for Chronic Obstructive Pulmonary Disease (COPD) and Asthma in England.

Department of Health (2010) NHS Outcomes Framework 2011/12.

Definitions and data sources

References included in the definitions and data sources sections can be found below:

CAT COPD assessment test.

Commissioning datasets.

Department of Health Operational Plans 2008/09 – 2010/11.

Hospital episodes statistics.

National COPD audits.

National Institute for Health and Clinical Excellence (2008) Smoking cessation services in primary care, pharmacies, local authorities and workplaces, particularly for manual working groups, pregnant women and hard to reach communities. NICE public health guidance 10.

Office of Population, Censuses and Surveys classification of surgical operations and procedures (OPCS-4).

Quality and Outcomes Framework indicators.

St George's Respiratory Questionnaire.

World Health Organisation (2007) International statistical classification of diseases and related health problems 10th revision.

Related NICE quality standards

Patient experience in adult NHS services. NICE quality standard 15 (2012).

End of life care for adults. NICE quality standard 13 (2011).

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About this quality standard

NICE quality standards are a set of specific, concise statements and associated measures. They set out aspirational, but achievable, markers of high-quality, cost-effective patient care, covering the treatment and prevention of different diseases and conditions. Derived from the best available evidence such as NICE guidance and other evidence sources accredited by NHS Evidence, they are developed independently by NICE, in collaboration with NHS and social care professionals, their partners and service users, and address three dimensions of quality: clinical effectiveness, patient safety and patient experience.

The methods and processes for developing NICE quality standards are described in the healthcare quality standards process guide.

This quality standard has been incorporated into the NICE COPD pathway.

We have produced a summary for patients and carers.

Changes after publication

April 2015: minor maintenance.

August 2013: minor maintenance.

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Supporting organisations

Many organisations share NICE's commitment to quality improvement using evidence-based guidance. The following supporting organisations have recognised the benefit of the quality standard in improving care for patients, carers, service users and members of the public. They have agreed to work with NICE to ensure that those commissioning or providing services are made aware of and encouraged to use the quality standard.

- Association of Chartered Physiotherapists in Respiratory Care
- Association of Respiratory Nurse Specialists
- British Lung Foundation
- British Thoracic Society
- Primary Care Respiratory Society UK
- Royal College of Nursing
- Royal Pharmaceutical Society
- Royal College of Physicians