Managing COPD

An estimated three million people in the UK have chronic obstructive pulmonary disease (COPD). About 900,000 have been diagnosed, while an estimated two million people have COPD that remains undiagnosed (Healthcare Commission, 2006). The major cause is smoking.

The National Institute for Health and Clinical Excellence has issued guidance on the management of COPD in adults in primary and acute care. Published in June 2010, this guideline has updated several recommendations from 2004, and offers best practice advice on the care of adults with a clinical diagnosis of COPD including chronic bronchitis, emphysema and chronic airflow limitation/obstruction.

It is relevant to primary and acute health professionals who have direct contact with patients with COPD and make decisions about their care. The guideline covers diagnostic criteria and identification of early disease. It also makes recommendations on the management of people with stable COPD, exacerbations and preventing disease progression. New recommendations have been added on spirometry, assessment of prognostic factors, and inhaled therapy.

COPD is a progressive incurable respiratory illness, which is characterised by airflow obstruction that does not change markedly over months. Airflow obstruction is defined as a forced expiratory volume in one second (FEV1)/forced vital capacity (FVC) ratio of < 0.7.

**Recommendations**

NICE has identified key priorities for implementation from the COPD guideline. These are the recommendations likely to have the biggest impact on patient care and outcomes in the NHS as a whole.

**Diagnosing COPD**

There is no single diagnostic test for COPD. Making a diagnosis relies on clinical judgement based on a combination of history, physical examination and confirmation of the presence of airflow obstruction using spirometry.

Post-bronchodilator measurements are recommended when recording spirometry. There are four categories of airflow obstruction: mild; moderate; severe; and very severe.

**Encouraging patients to stop smoking**

Helping patients stop smoking is a key intervention for nurses. In addition to the previous recommendations, unless contraindicated nicotine replacement therapy, varenicline or bupropion should be used with support programmes.

**Promoting effective inhaled therapy**

In people with stable COPD who remain breathless or have exacerbations despite using short-acting bronchodilators as required, the following maintenance therapy should be offered:

- If FEV1 ≥ 50% predicted: either a long-acting beta2 agonist (LABA) or a long-acting muscarinic antagonist (LAMA);
- If FEV1 < 50% predicted: either LABA with an inhaled corticosteroid (ICS) in a combination inhaler, or LAMA;
- Offer LAMA in addition to LABA+ICS to people who remain breathless or have exacerbations despite taking LABA+ICS, irrespective of their FEV1.

Health professionals should be aware of inhaled corticosteroids’ side-effects (including non-fatal pneumonia) and discuss these with patients.

**Providing pulmonary rehabilitation**

Pulmonary rehabilitation should be offered to all appropriate patients, including those who are functionally disabled by COPD (usually MRC grade 3 and above) and those who have recently been hospitalised for an acute exacerbation.

It is not suitable for patients who cannot walk, have unstable angina or who have had a recent myocardial infarction.

**Use of non-invasive ventilation**

Non-invasive ventilation (NIV) should be used for persistent hypercapnic ventilatory failure during exacerbations not responding to medical therapy. It should be delivered by staff who are trained in its application, experienced in its use and aware of its limitations.

When patients are started on NIV, there should be a clear plan covering what to do in the event of deterioration and ceilings of therapy should be agreed.

**Managing exacerbations**

The frequency of exacerbations should be reduced by inhaled corticosteroids and bronchodilators, and vaccinations. Their impact should be minimised by:

- Giving self-management advice on responding promptly to the symptoms;
- Starting treatment with oral steroids and/or antibiotics;
- The use of non-invasive ventilation when indicated;
- The use of hospital-at-home or assisted-discharge schemes.

An addition to the guideline is the recommendation that mucolytic drugs do not prevent exacerbations so should not be used routinely for this purpose.

**Multidisciplinary working**

COPD care should be delivered by a multi-disciplinary team. Irrespective of setting, nurses have an important role in:

- Holistic assessment, treatment and monitoring of patients with COPD;
- Health education and smoking cessation;
- Advising patients on self-management;
- Providing palliative care.

Because COPD has a significant impact on patients’ quality of life, nurses should screen them for anxiety and depression, especially those who are hypoxic, have severe dyspnoea and who have been admitted to hospital with an exacerbation.

**Conclusion**

This updated NICE guideline will ensure that patients continue to receive the best possible care, both by improving identification of the condition and by increasing the choice of treatments based on the most up-to-date clinical and cost-effectiveness evidence.

The guideline is available for download at www.nice.org.uk/CG101

Karen Heslop is respiratory nurse consultant, Newcastle upon Tyne NHS Foundation Trust; and Chris Loveridge is COPD and spirometry clinical lead, Education for Health. Both are members of the NICE guideline development group.

**Reference**