10-MINUTE CONSULTATION

Chronic obstructive pulmonary disease

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This is part of a series of occasional articles on common problems in primary care

USEFUL READING

Global Initiative for Chronic Obstructive Lung Disease. *Global strategy for the diagnosis, management, and prevention of chronic obstructive pulmonary disease*. www.goldcopd.com

Canadian Thoracic Society. *COPD guidelines*. www.copdguidelines.ca

British Thoracic Society COPD Consortium. *Spirometry in practice: a practical guide to using spirometry in primary care*. 2nd ed. Available at www.brit-thoracic.org.uk/download347.html

Gadoury MA, Schwartzman K, Rouleau M, Maltais F, Julien M, Beaupre A, et al. Self-management reduces both short- and long-term hospitalisation in COPD. *Eur Respir J* 2005;26:853-7

A 58 year old female smoker presents with a complaint of dyspnoea associated with chronic cough and sputum production during the winter months. Her general health is good. She recently took early retirement to spend more time with her grandchildren but found that she is too breathless to lift and carry them or to look after them safely in the park.

What issues you should cover

Chronic obstructive pulmonary disease (COPD) is largely caused by smoking and is characterised by progressive, partially reversible airflow obstruction, systemic manifestations (skeletal muscle dysfunction, depression, and secondary polycythaemia), and increasing frequency and severity of exacerbations. The main symptoms—usually insidious in onset and progressive—are shortness of breath and inability to tolerate physical activity.

History—Take a careful history to determine whether she has COPD, focusing on the main symptoms. Does she smoke or have significant exposure to secondhand smoke or occupational dust? Ask about history of exacerbations: urgent care visits, prescriptions for antibiotics or oral corticosteroids, and hospitalisation.

Comorbidity—Ask about symptoms that suggest common comorbidities such as heart and circulatory diseases, asthma, anaemia, and depression.

Referral—Look out for worrying features associated with COPD that merit referral to a specialist: diagnostic uncertainty; COPD in people under 40 or in those who have a first degree relative with history of α_1 antitrypsin deficiency; severe COPD; frequent exacerbations; haemoptysis; and difficulty in controlling symptoms or a need for oxygen therapy, pulmonary rehabilitation, or surgery.

What you should do

- In examining her look for signs of a hyperinflated (barrel shaped) chest, absent apex beat, hyperresonance, and reduced diaphragmatic excursion, which are usually present in advanced disease. Although a physical examination is an essential part of assessment it is an insensitive means of detecting air flow obstruction.
- Record her height and weight. Look for signs of poor nutrition or muscle wasting (especially in the thighs), which commonly accompany severe COPD.
- Explain that to confirm the diagnosis you will have to perform spirometry, the gold standard for diagnosis and assessment of COPD related impairment. It should be considered in all patients aged 40 or over who are smokers or ex-smokers and who have shortness of breath after activity, persistent cough and sputum production, or frequent respiratory tract infections.
- Arrange chest radiography to rule out other comorbidities such as lung cancer, bronchiectasis, heart failure, tuberculosis, and interstitial lung disease.
- Strongly encourage smoking cessation at every opportunity.
- Remember that COPD is amenable to treatment. Be positive and supportive.
- Educate and advise her on any necessary or helpful lifestyle modifications (dietary change and exercising more).
- Use of inhalers is not intuitive and devices differ, so you should carefully explain their use and show her how to use each inhaler.
- Encourage partnership in care with the practice nurse and the primary care team and arrange a follow-up visit. This will allow you to assess her compliance, inhaler technique, and—by assessing how much her dyspnoea and overall lung function have improved—response to initial therapy. Use the Medical Research Council dyspnoea scale to assess shortness of breath and disability in the follow-up evaluation. If no improvement has occurred, adjust the treatment regimen to provide optimal symptom relief.
- Consider referring her to an airways clinic if one is nearby.
- Continue to review her progress, and if none is made consider referral to a specialist.

LONG TERM MANAGEMENT OF COPD

- Encourage collaborative self management
- Encourage smoking cessation
- Give annual influenza vaccination
- Give pneumococcal vaccination at least once, and possibly every 5-10 years
- Inhaled bronchodilators are the mainstay of COPD pharmacotherapy: titrate to relieve dyspnoea
- Prescribe short acting β_2 agonists as needed, supplemented by stepwise addition of regular short or long acting anticholinergic inhalers
- Add a long acting β_2 agonist inhaler (LABA)
- Add an inhaled corticosteroid (ICS) or a combination of ICS and LABA as a single inhaler

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