Essential considerations in the management of persons with COPD

Introduction

Chronic Obstructive Pulmonary Disease (COPD) is a treatable, preventable disease that requires early identification and intervention, monitoring, and adherence to the principles of comprehensive care. Diagnosis at an early stage is paramount, based on: 1) the symptoms of cough, dyspnea, and sputum, 2) risk factors including cigarette smoking, exposure to occupational dusts, and/or a family history of COPD or emphysema.

- Spirometry testing should be used to confirm every diagnosis of COPD. Simple spirometry is inexpensive and should be available at every medical facility.
- *All cigarette-smokers* should be considered to be at risk of developing COPD.
- Greater than 90% of all cases of COPD are cigarette-smoking related.
- Smoking cessation is the single best way to prevent and reduce the progression of COPD.
- Reliance on the development of symptoms to consider the diagnosis is a grievous mistake.
- Persons may irreversibly lose > 50% of their lung function prior to the onset of symptoms.
- All persons over the age of 35 who are at risk because of smoking, family history, or occupational exposure to dust or other air pollutants should have a screening spirometry every 1 to 2 years.
- Alpha-one anti-trypsin deficiency screening should be performed in all instances of early onset COPD (< age 40), severe or rapidly progressive disease, and/or when a strong family history of COPD or emphysema.

The optimum management of COPD *entails identification* and *treatment of all comorbid conditions*.

Goals of COPD management

- The relief of symptoms
- Improvement in exercise tolerance
- A reduction in frequency of exacerbations
- A reduction in mortality
- *Improvement in quality of life*

Methods of COPD management: Pharmacologic and non-pharmacologic

Pharmacologic management

- Daily long-acting bronchodilators, beta-2 agonists and/or anticholinergics are recommended, not mandatory.
- Systemic glucocorticosteroids are beneficial in the management of exacerbations of COPD. They shorten recovery time, improve lung function and hypoxemia, and may reduce the risk of early relapse, treatment failure, and length of hospital stay. A course of glucocorticosteroids for seven to 10 days is recommended for COPD exacerbations.

Non-pharmacologic management

- Smoking cessation and the avoidance of other risk factors is crucial.
- The care of persons with COPD requires a team effort, best achieved through pulmonary rehabilitation programs, the benefits of which have been confirmed in the medical literature. Every person with moderate to very severe disease is a candidate for a pulmonary rehabilitation program that provides exercise training, education, nutrition counseling, and smoking cessation.
- Education should be practical to the extent that it enables the patient to be an active participant in his/her own care – to engage in self-management. It should stress the importance of self-monitoring and appreciation of the early warning signals of an exacerbation. Patient/members who understand the value of early intervention can facilitate it by implementing a COPD symptom action plan. This will facilitate early intervention.

Education should also include the following:

- Importance of adherence to medication and the causes of non-adherence
- Purpose of each medication and optimum inhaler technique
- The great importance of exercise
- Self (or family) recognition of signs of depression, anxiety, or cognitive dysfunction
- Pneumococcal (pneumonia) vaccination once unless immunocompromised or given more than 5 years before age 65

Common comorbid states

Some comorbid conditions are associated with COPD with such frequency as to be almost predictable in the majority of persons with moderate to severe COPD. Of these, the most noteworthy examples are depression, heart failure, malnutrition, osteoporosis, and coronary artery disease. The symptoms of these diseases may be mistakenly attributed to COPD, go untreated, and, most importantly, result in a sub-optimum response to the treatment of persons with COPD.

Specialist consultation should be considered in the following circumstances

- A patient not responding to conventional therapy
- Frequent exacerbations, ER visits, or hospitalizations despite appropriate therapy
- Recurrent infections with purulent sputum
- Anxiety and/or depression, unresponsive to PCP therapy
- Rapid and/or progressive worsening of irreversible airway obstruction

The recognition of high-risk patients

- Those with frequent or recent exacerbations resulting in an ER visit or hospitalization
- Persons who are oxygen dependent, especially if chronically hypercapneic
- Persons who live alone and/or have inadequate social support
- Persons with a comorbid condition, especially heart disease, depression, or dementia
- Persons shown to be incapable of self-monitoring and self-management
- Elderly and/or infirm individuals

Source: Global Institute for Chronic Obstructive Lung Disease 2011, December. Available online http//www.goldcopd.org/uploads/users/files/GOLD_Report_2011/Dec30.pdfGold