Care Guide for Management of COPD			
Population	**Physician/Patient**	**Recommendations**	**Frequency**
All COPD Patients	Confirm Diagnosis	• Consider COPD if any patient has dyspnea, chronic cough, sputum production or a history of risk factors, especially tobacco smoking. • Diagnosis should be confirmed by spirometry testing (yearly thereafter or as indicated)	Initial visit
	Initial Physician Steps	• Relieve symptoms, consider pharmacologic treatment or appropriate therapy • Implement treatment /exacerbation plan • Consider referral to pulmonary rehabilitation or pulmonologist • Provide influenza and pneumococcal vaccine if indicated • Provide initial education and self management tools • Refer to Disease Management program • Depression Screening	Initial and follow-up visits.
	Patient Education	Educate patient regarding: • COPD and risk factors/ avoiding irritants • Appropriate use of medications/ inhalers • Signs and symptoms of exacerbations • Health maintenance role including reduction of dyspnea and increase in exercise/activity tolerance • Nutrition and diet	Initial and follow-up visits
	Patient Self Monitoring	• Ability to avoid risk factors/irritants • Ability to understand and administer medications • Ability to monitor COPD symptom status, recognize exacerbations and follow treatment plan protocol (algorithm) • Seek medical assistance as appropriate	Initial and follow-up visits
All Patients Identified As Tobacco Users	Promote Tobacco Cessation	• **Ask:** Identify all tobacco users with every visit • **Advise:** Strongly urge all tobacco users to quit • **Assess:** Determine willingness to quit • **Assist:** Aid the patient in quitting through education, self-help tips, nicotine replacement therapy or withdrawal medications. • **Arrange:** Follow-up contact for progress/support	Each visit and inpatient admissions or more frequently as needed

FEV_1/FVC: FEV_1 expressed as a percentage of the FVC, gives a clinically useful index of airflow limitation
The ratio FEV_1/FVC is normal if between 70-80%, a value less than 70% indicates limited airflow and the possibility of COPD

Stages of COPD
Stage I: Mild COPD – Mild airflow limitation **(FEV_1/FVC < 70%; $FEV_1 \geq$ 80% predicted)** and sometimes, but not always, chronic cough and sputum production. *At this stage, the individual may not be aware that his or her lung function is abnormal.*
Stage II: Moderate COPD- Worsening airflow limitation **(FEV_1/FVC < 70%; 50% $\leq$ FEV_1 < 80% predicted)**, with shortness of breath typically developing on exertion. *This is the stage at which patients typically seek medical attention because of chronic respiratory symptoms or an exacerbation of their disease.*
Stage III: Severe COPD- Further worsening of airflow limitation **(FEV_1/FVC < 70%; 30% $\leq$ FEV_1 < 50% predicted),** greater shortness of breath, reduced exercise capacity, and repeated exacerbations which have an impact on patients' quality of life.
Stage IV: Very Severe COPD- Severe airflow limitation **(FEV_1/FVC < 70%; 30% < predicted)** or **FEV_1 < 50%** predicted plus chronic respiratory failure. Patients may have Very Severe (Stage IV) COPD even if the **FEV_1 is >30%** predicted, whenever this complication is present. Oxygen therapy may need to be initiated. *At this stage, quality of life is very appreciably impaired and exacerbations may be life threatening.*
Pharmacologic Treatment
Bronchodilators: • Inhaled therapy is preferred • Give "as needed" to relieve intermittent or worsening symptoms, and on a regular basis to prevent or reduce persistent symptoms. • The choice of therapies (B_2 –agonists, anticholinergics, methylxanthines, and combination therapy) depends on patient's individual response in terms of symptom relief and side effects. • Regular treatment with long-acting bronchodilators is more effective and convenient than treatment with short-acting bronchodilators. • Combining bronchodilators may improve efficacy and decrease the risk of side effects compared to increasing the dose of a single bronchodilator.
Glucocorticosteroids: • Regular treatment with inhaled Glucocorticosteroids is only appropriate for patients with an **FEV_1 < 50%** predicted and repeated exacerbations. • Long-term treatment with **oral** Glucocorticosteroids is **not recommended**.
Antibiotics: • **Not recommended** except for treatment of infectious exacerbations and other bacterial infections.

References (2007):
www.goldcopd.com
www.kcqic.org
www.guidelines.gov