with COPD. There is a suggestion that inhaled LAMA bronchodilators may reduce mortality.

PHARMACOTHERAPY

Smoking Cessation (See also Chap. 454) It has been shown that middle-aged smokers who were able to successfully stop smoking experienced a significant improvement in the rate of decline in pulmonary function, often returning to annual changes similar to that of nonsmoking patients. In addition, smoking cessation improves survival. Thus, all patients with COPD should be strongly urged to quit smoking and educated about the benefits of quitting. An emerging body of evidence demonstrates that combining pharmacotherapy with traditional supportive approaches considerably enhances the chances of successful smoking cessation. There are three principal pharmacologic approaches to the problem: nicotine replacement therapy available as gum, transdermal patch, lozenge, inhaler, and nasal spray; bupropion; and varenicline, a nicotinic acid receptor agonist/antagonist. Current recommendations from the U.S. Surgeon General are that all adult, nonpregnant smokers considering quitting be offered pharmacotherapy, in the absence of any contraindication to treatment. Smoking cessation counseling is also recommended and free counseling is available through state Smoking QuitLines.

Bronchodilators In general, bronchodilators are the primary treatment for almost all patients with COPD and are used for symptomatic benefit and to reduce exacerbations. The inhaled route is preferred for medication delivery, because side effects are less than with systemic medication delivery. In symptomatic patients, both regularly scheduled use of long-acting agents and as-needed short-acting medications are indicated. **Figure 292-6** provides suggestions for prescribing inhaled medication therapy based on grouping patients by severity of symptoms and risk of exacerbations.