Approaches to drug therapy for COPD in Russia: a proposed therapeutic algorithm

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Abstract

Until recently, there have been few clinical algorithms for the management of patients with COPD. Current evidence-based clinical management guidelines can appear to be complex, and they lack clear step-by-step instructions. For these reasons, we chose to create a simple and practical clinical algorithm for the management of patients with COPD, which would be applicable to real-world clinical practice, and which was based on clinical symptoms and spirometric parameters that would take into account the pathophysiological heterogeneity of COPD. This optimized algorithm has two main fields, one for nonspecialist treatment by primary care and general physicians and the other for treatment by specialized pulmonologists. Patients with COPD are treated with long-acting bronchodilators and short-acting drugs on a demand basis. If the forced expiratory volume in one second (FEV1) is ≥50% of predicted and symptoms are mild, treatment with a single long-acting muscarinic antagonist or long-acting beta-agonist is proposed. When FEV1 is <50% of predicted and/or the COPD assessment test score is ≥10, the use of combined bronchodilators is advised. If there is no response to treatment after three months, referral to a pulmonary specialist is recommended for pathophysiological endotyping: 1) eosinophilic endotype with peripheral blood or sputum eosinophilia >3%; 2) neutrophilic endotype with peripheral blood neutrophilia >60% or green sputum; or 3) pauci-granulocytic endotype. It is hoped that this simple, optimized, step-by-step algorithm will help to individualize the treatment of COPD in real-world clinical practice. This algorithm has yet to be evaluated prospectively or by comparison with other COPD management algorithms, including its effects on patient treatment outcomes. However, it is hoped that this algorithm may be useful in daily clinical practice for physicians treating patients with COPD in Russia.

KEYWORDS:

COPD; bronchodilators; spirometry; symptoms; treatment; treatment algorithm

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