

Chronic Obstructive Pulmonary Disease: Official diagnosis and treatment guidelines of the Czech Pneumological and Phthisiological Society; a novel phenotypic approach to COPD with patient-oriented care



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PURPOSE and METHODS

Chronic Obstructive Pulmonary Disease (COPD) represents a serious condition that is continuously spreading worldwide. Currently, multiple treatment guidelines exist around the world. An Expert group has been commissioned by the Czech Pneumological and Phthisiological Society (CPPS) to suggest a draft recommendation guideline for the diagnosis and treatment of stable patients with COPD. The proposed document has been revised and further discussed at the National Consensus Conference (NCC). Revisions and NCC comments contributed to the establishment of the final version of the document. The authors aimed to place this entity into the context of the actual healthcare system and clinical practice in the Czech Republic where: a) majority of COPD patients are in the care of pulmonologists with unlimited access to the lung function testing and chest CT, b) all treatment options are available, and c) all residents have to be registered with one of several health insurance companies, d) a patient's health insurance covers most of the treatment expenses. The emphasis is placed on personalized care informed by and targeting the symptoms and phenotypes of each patient, considering severe comorbidities and types of medication used.

COPD DIAGNOSIS

COPD DIAGNOSIS according to European Respiratory Society (ERS) recommendations

The foundation of the modern approach to diagnosis of COPD lies within the evaluation of a patient's lung functions, symptoms, history of exacerbations and clinical phenotype(s). Validity of the diagnosis should always be checked using a spirometry assessment. The essential requirement for COPD diagnosis is the presence of a post-bronchodilator (post-BD) expiratory airflow limitation, which is defined, according ERS recommendations, as a decrease in the FEV₁/VC ratio below the lower limit of normal (LLN).

GOLD classification according to post-BD FEV₁, CAT and acute exacerbation frequency

When evaluating the complexity of COPD, it is recommended, in addition to post-BD FEV₁ value detection, to monitor symptoms (preferably using the CAT questionnaire, alternatively using the modified MRC dyspnea scale) and the number of acute exacerbation events presented during last 12 months. Using these parameters, it is possible to classify each patient into one of the four GOLD categories denoted A, B, C, D. Category A represents the early phase of the disease and can be sufficiently managed by general practitioners (GPs). However, category B deserves particular attention as it consists of patients with a substantial morbidity and mortality risk – mainly due to cardiovascular comorbidities and malignant diseases or severity of lung emphysema that does not correspond to the FEV₁ value. Oligo-symptomatic patients, comprising category C, can be found in the general population, but are rarely seen in the pneumologist's care. The highest mortality risk is associated with category D (Fig.1).

Phenotypical classification according to medical history and disease course assessment

The most common clinical presentation of COPD is the sensation of breathing difficulties. COPD patients commonly experience a cough, which can be productive (2/3 of patients) or non-productive. The relatively stable course of COPD is intermittently interrupted in some subjects by attacks of acute deterioration, called acute exacerbations (AEs). A sizable proportion of patients suffer from simultaneously presented COPD and asthma (asthma and COPD overlap syndrome – ACOS). Some COPD patients are almost daily affected by purulent sputum expectoration with blood traces indicating a history of prolonged/recurrent airway infections (thorax CT can confirm the presence of bronchiectasis). Long-lasting COPD can lead to the development of pulmonary cachexia (Fig. 2). Therefore the CPPS defines six clinically relevant COPD phenotypes: bronchitic and emphysematous phenotypes, COPD + asthma (ACOS) overlap, COPD + bronchiectasis overlap, phenotype of frequent exacerbations and pulmonary cachexia phenotype (Fig. 2).

Figure 1: CPPS COPD classification is based on modified(*) GOLD and phenotype(s) assessment

