

New tool to predict the risk of death in COPD

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Researchers have developed an index scale to help physicians predict a patient's risk of dying from chronic obstructive pulmonary disease (COPD). The ADO index can help physicians assess the severity of a patient's illness to determine the appropriate level of treatment. COPD, which comprises emphysema and chronic bronchitis, is a major public health problem and it is the fourth leading cause of death in the U.S. The study of the ADO index is published in the August 29 edition of the *Lancet*.

Currently, the BODE index is used by chest physicians to estimate a patient's risk of death from COPD. The index is based on an assessment of body-mass index, airflow obstruction, dyspnea and exercise capacity. However, the BODE index is rarely used in primary care settings where most patient treatment options are managed, because exercise capacity cannot be easily measured in the typical doctor's office.

"The burden from COPD is so enormous that we need to reach out to any doctors who care for COPD patients. The ADO index can be used in any setting and we hope that it will serve as a basis for more individualized treatment selection in the near future," said Milo A. Puhan, MD, PhD, associate professor in the Department of Epidemiology at the Johns Hopkins Bloomberg School of Public Health and lead author of the study.

For the study, Puhan and colleagues developed a simplified BODE index and the ADO index, which included age, [dyspnea](#) and airflow

obstruction. The research team compared the predictions of the BODE index with the 3-year risk of all-cause mortality from 232 COPD patients from Switzerland. The updated BODE index and the new ADO index were then validated with a cohort of 342 COPD patients from Spain.

According to the study, the updated BODE and ADO indices accurately predicted 3-year mortality and matched the observed mortality in the Spanish cohort well with little difference between predicted and observed mortality compared to the original BODE index, which performed poorly at predicting 3-year risk of mortality. The analysis of the BODE index showed a 36 percent relative under prediction in the Swiss cohort and a 39 percent relative over prediction in the Spanish cohort.

COPD affects more than 16 million Americans and it is the only disease among the top 10 causes of death with a rising mortality rate in the United States. It is predicted to be the third largest cause of death by 2020 and has already reached worldwide epidemic proportions.

Source: Johns Hopkins University Bloomberg School of Public Health ([news](#) : [web](#))

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