

# Novel tool can identify COPD

September 29 2015

---

A novel approach for the identification of chronic obstructive pulmonary disease (COPD) has been developed by a team of researchers in the USA.

The findings, presented today (29 September, 2015) at the European Respiratory Society's International Congress, could speed up current diagnosis times for the disease and uncover COPD before serious exacerbations and further loss of [lung function](#) have occurred.

COPD is underdiagnosed, and previous screening tools have relied on smoking history and patient report of cough and sputum. COPD is often uncovered during exacerbations and after significant loss of lung function.

This new study aimed at creating a simple tool, consisting of several questions that can be used with or without peak flow, to aid clinicians to find people with moderate or severe COPD, or people at risk of exacerbations of COPD before loss of lung function.

186 people with clinically-significant COPD were included in the study and compared with a control group of 160 people with mild or no COPD. Both groups completed questionnaires and had their lung function measured using peak flow and spirometry.

Authors used a method of analysis known as, random forests, to analyse the data and identify the best and smallest set of questions that differentiated patients with clinically significant COPD from controls.

The value of adding peak flow to these questions was also assessed.

The results produced a set of five "yes or no" questions that together can accurately identify people with moderate or severe COPD or people at risk of exacerbations of COPD. The questions ask about breathing, how easily a person tires and acute respiratory illness and did not ask about smoking, cough or sputum.

When peak flow results were included the accuracy of the diagnosis was enhanced.

Professor David Mannino, presenting author from the University of Kentucky College of Public Health, commented: "The results of our study indicate that a 5-item questionnaire of carefully selected questions can help identify people before they have serious complications of COPD. This is also the first time a questionnaire has included assessment of exacerbation risk. Previous screening methods focused on smoking histories and sputum production. Our study also found that when clinicians include peak flow measurements in addition to the questionnaire, the identification of people with COPD is even more accurate.

"We hope these findings will improve how physicians find COPD and benefit patients by identifying those with more severe disease and at risk of exacerbations so they can be treated."

**More information:** Abstract: LATE-BREAKING ABSTRACT: A novel approach for identifying patients with undiagnosed clinically-significant COPD

Provided by European Lung Foundation

Citation: Novel tool can identify COPD (2015, September 29) retrieved 15 July 2023 from <https://medicalxpress.com/news/2015-09-tool-copd.html>

This document is subject to copyright. Apart from any fair dealing for the purpose of private study or research, no part may be reproduced without the written permission. The content is provided for information purposes only.