

TRIPLE THERAPY IMPROVES LUNG FUNCTION IN COPD



PHOTO TAKE Inc./Alamy

Adding fluticasone/salmeterol to tiotropium therapy in patients with moderate to severe COPD improved lung function, quality of life, and hospitalisation rates but did not statistically influence exacerbation rates, a study has shown.

A total of 449 patients with moderate or severe COPD were randomised to one year's treatment with tiotropium plus placebo, tiotropium plus salmeterol, or tiotropium plus fluticasone/salmeterol.

Results showed that nearly two-thirds (62.8%) of patients treated with tiotropium plus placebo experienced an exacerbation, which was similar to the rate in patients given tiotropium plus salmeterol (64.8%) or tiotropium plus fluticasone/salmeterol (60.0%).

Further results demonstrated that tiotropium plus fluticasone/salmeterol improved lung function ($p < 0.049$) and disease-specific quality of life ($p < 0.01$) and reduced the number of hospital admissions for COPD exacerbation (incidence rate ratio, 0.53 [CI, 0.33 to 0.86]) and all cause hospitalisations (incidence rate ratio, 0.67 [CI, 0.45 to 0.99]) compared with tiotropium plus placebo.

In contrast, tiotropium plus salmeterol did not statistically improve lung function or hospitalization rates compared with tiotropium plus placebo.

ACTION

Addition of fluticasone/salmeterol to tiotropium therapy may improve lung function, quality of life, and hospitalisation rates in patients with moderate to severe COPD but will not influence rates of COPD exacerbation.

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Evidence in Practice compiled by:
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The purpose of this series is to help you to understand research concepts by breaking them down into 'bite-sized chunks'.

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DOUBLE BLIND RANDOMISED CONTROLLED TRIAL

The phrase 'double blind randomised controlled trial' is common in research journals but what does it mean?

• What is a 'trial'?

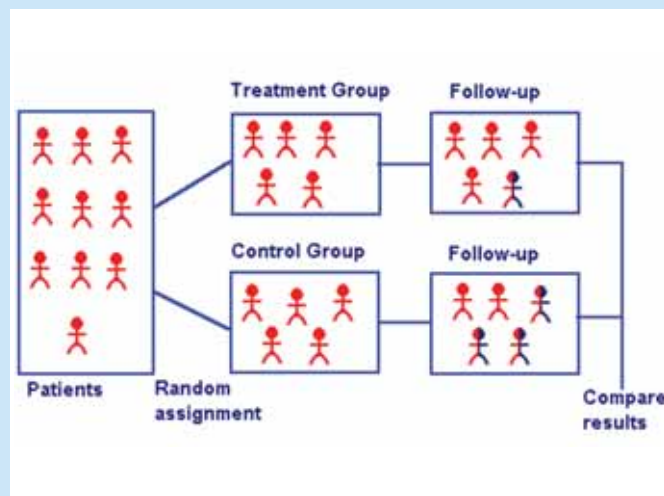
In order for the effectiveness of new interventions (e.g. drugs, treatments or diagnostic methods) to be evaluated they need to be tried out or 'tried'. Research designed to test an intervention is therefore called a trial.

• Why is a trial 'controlled'?

Trials evaluate whether the effects of new interventions on patients differ from usual care or placebo (an inactive substance). The usual care or placebo is the control: the standard against which the new intervention is checked.

• Why is the controlled trial 'randomised'?

Imagine you wish to run a controlled trial to test the effectiveness of a new drug treatment. The intervention and control groups should be as similar as possible at the start so that any differences at the end of the trial can be attributed to the new treatment. The best way of doing this is to randomly allocate patients to receive either the new drug or usual care.



• Why is it the randomised controlled trial 'double blind'?

This means that the patients included in the trial and the researchers handling the data do not know (are blind to) which group patients are in. You might like to ponder why this might be, and whether it is always possible to achieve in clinical trials. These questions will be addressed in the next article.



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