The Challenge

Chronic obstructive pulmonary disease (COPD) is a debilitating condition that affects around 3 million people in the UK. Patients with COPD are less likely to survive after a heart attack than patients without COPD. Some studies carried out in the past suggested that use of drugs called beta-blockers, which are often used with other medicines to treat a heart attack, might be harmful in patients with COPD, leading to underuse of these drugs for heart attacks.

The Research

Researchers from the London School of Hygiene & Tropical Medicine and the Farr Institute in London carried out the largest study to date to examine the effect of beta-blockers on survival after a heart attack in patients with COPD. They used data that is routinely recorded for all patients across the UK who are admitted to hospital with a heart attack linked to national death records, and analysed data on 1063 patients.

The Results

The study found that over half (55%) of people with COPD were never prescribed a beta-blocker, and only 39% received a beta-blocker during their hospital admission. Patients with COPD who were given a beta-blocker during a hospital admission had much better (55% higher) survival compared to those never prescribed a beta-blocker. Patients who received the beta-blocker before admission also had better survival (28% higher) than patients who did not receive the medication. The medication was also tolerated well by patients as a high number (nearly two thirds) of people who were prescribed a beta-blocker during their admission to hospital were still taking it two years later.

The Impact

Using data this study highlighted important missed opportunities for treating patients with COPD who have a heart attack and suggests that beta-blockers should be used more widely among this group of patients. The study also provides a really good example of how using ‘real world’ patient data can provide important information beyond data that are generated in costly and time-consuming clinical trials to help inform doctors and policy-makers about the benefits of prescribing these drugs.

For more information about COPD visit: www.nhs.uk/conditions/COPD

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