Case-finding and improving patient outcomes for chronic obstructive pulmonary disease in primary care: the BLISS research programme including cluster RCT

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Plain English summary

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Plain English summary

Chronic obstructive pulmonary disease is an important lung disease, affecting around 10% of adults worldwide. Each year in the UK, it accounts for 1.4 million general practitioner consultations, 1 million hospital bed-days and around 24 million lost working days. However, at least half of those with chronic obstructive pulmonary disease are unaware of their diagnosis and these people may not receive early treatment. Before our research there was uncertainty about (1) how to best identify these missing patients, (2) whether or not early identification would benefit patients, (3) how chronic obstructive pulmonary disease progresses, (4) what characteristics (other than smoking) affect risk of hospital admission or early death and (5) what aspects influence ability to work in people with chronic obstructive pulmonary disease.

We found that if general practitioners offered screening to smokers aged over 40 years then they could identify seven times as many people with chronic obstructive pulmonary disease than they do currently. However, although these patients could potentially benefit from therapies, the health system was not set up to support doctors to provide all the recommended treatments. Our economic model suggested that screening was worthwhile for detecting undiagnosed chronic obstructive pulmonary disease. However, after 4 years we found that screening did not reduce the risk of hospital admissions or death.

We also followed up around 2000 people with chronic obstructive pulmonary disease to see which features were linked with the risk of hospital admission with a lung problem. Through this we developed a tool that could measure an individual's chronic obstructive pulmonary disease severity. This has the potential to allow doctors to make more appropriate patient management decisions, but it needs more testing.

Finally, we examined which attributes (related to the patient, their lung problem or their workplace) affected people's ability to work. We found that people who are more breathless or exposed to inhaled hazards may have poorer work performance. However, because few patients in the study were in paid employment, we cannot draw firm conclusions.

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This report

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