

Blood tests and better communication skills could cut over-prescribing of antibiotics

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Improving communications skills and the use of a simple blood test could help cut the growing number of inappropriate prescriptions of antibiotics, a joint Cardiff University trial has discovered.

In a major new clinical trial, published in the *British Medical Journal*, a team of researchers from Cardiff University's School of Medicine together with researchers from the Maastricht University Medical Centre in the Netherlands found those GPs in primary care who underwent training in advanced communications skills and those who made use of a simple blood test prescribed fewer [antibiotics](#) for lower [respiratory tract](#) infections, which generally do not respond to antibiotics.

Professor Christopher Butler, Head of Department of Primary Care and Public Health at Cardiff University who led the trial, said: "As the problem of bacteria resistant to antibiotic treatment grows, researchers from around the world are seeking ways to improve the quality of antibiotic prescribing. Prescribing antibiotics only when patients will clearly benefit, reduces the pressure that drives antibiotic resistance.

"Conditions like acute bronchitis account for some 80% of all lower respiratory tract infections and despite evidence of little or no benefit from antibiotics, the majority of these patients are still prescribed antibiotics.

"We know that with the many pressures facing GPs, including worry about leaving pneumonia untreated, they often give patients "the benefit

of the doubt" and prescribe antibiotics. Our clinical trial therefore sought to evaluate ways antibiotic prescribing could be reduced without adversely affecting patient recovery or satisfaction with care."

The trial evaluated an 'illness focussed' approach, where clinicians seek to better understand the patient's illness experience and communicate more effectively about management, and a 'disease focussed' approach, where clinicians focus on diagnosis, in this case, a simple point-of-care blood test.

The trial randomised 20 general practices in the Netherlands, where 40 GPs managed 431 patients with lower respiratory tract [infection](#).

Dr Kerry Hood, Director of the South East Wales Trials Unit said, "The results showed that 54% of GPs practising according to usual care prescribed antibiotics, whereas 27% of those who had been trained in the advanced communication and 31% of the GPs who used the blood test methods did so. Only 23% of GPs who were trained in the advanced communication skills and who used the [blood test](#) prescribed antibiotics."

Professor Butler added, "This international collaboration between [primary care](#) researchers from Cardiff and Maastricht has shown that both an 'illness focussed' and a 'disease focussed' approach were effective in reducing antibiotic prescribing, but the two approaches combined give the greatest benefit. We need to both communicate better and improve diagnosis to do the best for our patients and to preserve antibiotic effectiveness for our children.

"Importantly, the results showed that prescribing fewer antibiotics did not mean that [patients](#) were unwell for longer. Patient's recovery and satisfaction with care were not compromised by GPs not prescribing their patient antibiotics."

More information: Jochen W L Cals, Christopher C Butler, Rogier M Hopstaken, Kerenza Hood, Geert-Jan Dinant - Effect of point of care testing for C reactive protein and training in communication skills on antibiotic use in lower respiratory tract infections: cluster randomised trial was published in the *British Medical Journal (BMJ)*, 2009; 338:b1374

Source: Cardiff University ([news](#) : [web](#))

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