

New test for patients with sore throats cuts antibiotic use by nearly a third

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A new 'clinical score' test for patients with sore throats could reduce the amount of antibiotics prescribed and result in patients feeling better more quickly, research in the *British Medical Journal* shows.

Researchers at the University of Southampton, funded by the National Institute for Health Research (NIHR) Health Technology Assessment (HTA) Programme, used the five-item FeverPAIN score to decide whether to prescribe patients with an antibiotic immediately or to give them a delayed prescription and compared it with simply offering a delayed prescription.

The FeverPAIN score includes; fever in the past 24 hours, a pus infection, rapid attendance (within three days), inflamed tonsils and no cough or cold symptoms.

Results showed that using the [test](#) reduced antibiotic use by almost 30 per cent and despite using fewer antibiotics, patients in the FeverPAIN score group experienced a greater improvement in symptoms.

But the use of an in-practice rapid [antigen test](#) (a test which detects the bacteria, Lancefield Group A Streptococcus, which is the most common bacterium to cause [sore throats](#)) in conjunction with the FeverPAIN score did not result in any further reductions in antibiotic use or improvements in symptoms.

Paul Little, Professor of Primary Care Research who led the research, comments: "Our findings show that using this clinical score test can target antibiotics more effectively and help persuade patients antibiotics are not needed.

"Additionally the FeverPAIN score should enable better targeting of antibiotics than the current scoring system to identify the likelihood of a bacterial infection in patients complaining of a sore

throat, as it allows GPs to rule out likely [streptococcal infection](#) in more patients."

The study recruited 631 patients with an acute sore throat and compared use of the FeverPAIN clinical score, with or without rapid antigen testing, with a delayed prescription, in which patients were told to pick up a prescription three to five days later if their symptoms did not settle or got worse.

Patients who had four or five of the clinical features of the FeverPAIN test were prescribed antibiotics immediately; a delayed antibiotic prescription was offered to patients with two or three features and no antibiotics to those with only one or no features.

The test led to a 29 per cent reduction in antibiotic use compared with the delayed prescription approach. One in three patients in the FeverPAIN score group said their sore throat had improved rapidly from a moderately bad problem to a slight problem within two to four days. Moderately bad or worse symptoms also got better faster in the clinical score group.

However, the use of a rapid antigen test as well as the FeverPAIN test for patients who displayed streptococci symptoms did not offer any further improvements, with a 27 per cent reduction in antibiotic use as well as similar improvements in patients' symptoms.

Study co-author Dr Michael Moore, a GP and a reader in primary care research at the University of Southampton, adds: "Clinicians can consider using a clinical score to target antibiotic use for acute sore throat, which is likely to reduce antibiotic use and improve symptom control. There is no clear advantage in the additional use of a rapid antigen test.

"We found that the FeverPAIN score picks up bacterial throat infections more accurately than the current scoring system and importantly picks up

larger numbers of [patients](#) who are at low risk of streptococcal infection giving the patient and the doctor the confidence not to use antibiotics. If you select those at the highest risk of streptococcal infection then [antibiotics](#) can be more targeted at the people who are most likely to get symptom benefit."

Provided by University of Southampton

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