

What is the clinical and cost-effectiveness of C-reactive protein point-of-care testing to guide antibiotic prescribing in patients presenting to primary care with symptoms of lower respiratory tract infection?

What is the condition?

Patients commonly visit their general practitioner (GP) with symptoms of lower respiratory tract infection (LTRI) such as cough, breathlessness or wheeze.

Antibiotics are often prescribed although in most cases the infection is due to a virus, rather than caused by bacteria, and so the medication will not be helpful and may have side effects.

What is the technology?

C-reactive protein (CRP) is raised in the blood of patients with bacterial infections.

This technology measures the level of CRP in a pin-prick of blood taken during the consultation.

Results are available in around 5 minutes and, using the findings alongside examination, can help the clinician advise on whether antibiotics are likely to be beneficial.

What we did

We looked for studies which compared the rates of antibiotic use between GPs or GP practices who had CRP testing available as an addition to standard care, and those who did not.

What we found

We found that where CRP testing was available the rates of antibiotic prescribing were lower.

Overall, the patients in both groups recovered well. However, some caution is needed as there was an indication in one study that a greater number of patients in the CRP group were admitted to hospital.

Due to differences between studies, it was not clear how big the potential reduction in antibiotic use could be from using the CRP test.

The test appeared to be good value for money.

Future work

Participants in most of the studies were middle aged adult patients so there is a need to have more research conducted to see how well the test works in children and older people with symptoms of LRTIs.

This plain language summary has been produced based on SHTG Advice Statement 008/18 May 2018.