

C-reactive protein measurement in general practice may lead to lower antibiotic prescribing for sinusitis

Introduction:

Acute maxillary sinusitis is a diagnostic challenge in general practice and patients with viral rhinosinusitis are often, and unnecessarily, treated with antibiotics. The growth of antimicrobial resistance is the feared consequence. The study presented below indicates that implementing the CRP rapid test in the general practice has a substantial influence on the treatment of sinusitis, and may lead to a reduction in antibiotic prescribing to patients with acute sinusitis.

Reference:

C-reactive protein measurement in general practice may lead to lower antibiotic prescribing for sinusitis. Bjerrum L, Gahrn-Hansen B and Munck A. British Journal of General Practice, 2004; 54: 659-662.

Abstract:

BACKGROUND: Symptoms of bacterial sinusitis overlap with viral sinusitis, and it is difficult to distinguish between the two conditions based only on a clinical examination. Uncertain diagnosis results in the significant overuse of antibiotics, which is considered to be one of the most important reasons for development of bacterial resistance to antibiotics. A raised C-reactive protein (CRP) level is an indicator of bacterial infection and the CRP rapid test has been shown to be useful for the diagnosis of bacterial sinusitis in general practice.

AIMS: To examine whether general practitioners (GPs) who use the CRP rapid test in their practice have a lower antibiotic prescribing rate for sinusitis than GPs who do not use the test.

DESIGN OF STUDY: Observational design. **SETTING:** General practice in Denmark.

METHOD: A group of GPs registered all contacts ($n = 17\,792$) with patients who had respiratory tract infections during a 3-week period between 1 November 2001 and 31 January 2002. GPs who used a CRP rapid test were compared with GPs who did not, and the treatment of their patients ($n = 1444$) with suspected sinusitis was compared.

RESULTS: A CRP rapid test was used by 77% ($n = 281$) of the GPs. In the group of GPs using a CRP rapid test, the rate of antibiotic prescribing was 59% (95% confidence interval [CI] = 56 to 62) compared with 78% (95% CI = 73 to 82) in the group of GPs who did not use a CRP test. Performing a CRP rapid test was the factor that exerted the greatest influence on whether the patients were prescribed antibiotics, and the level of CRP had a strong influence on the prescribing rate.

CONCLUSION: The CRP rapid test has a substantial influence on the treatment of sinusitis, and implementing the test in general practice may lead to a reduction in antibiotic prescribing to patients with sinusitis.

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Testing couldn't be easier

C-reactive protein and sinusitis

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