

Should I still use both CRP and ESR when investigating temporal arteritis?

No, CRP alone is adequate as the initial test

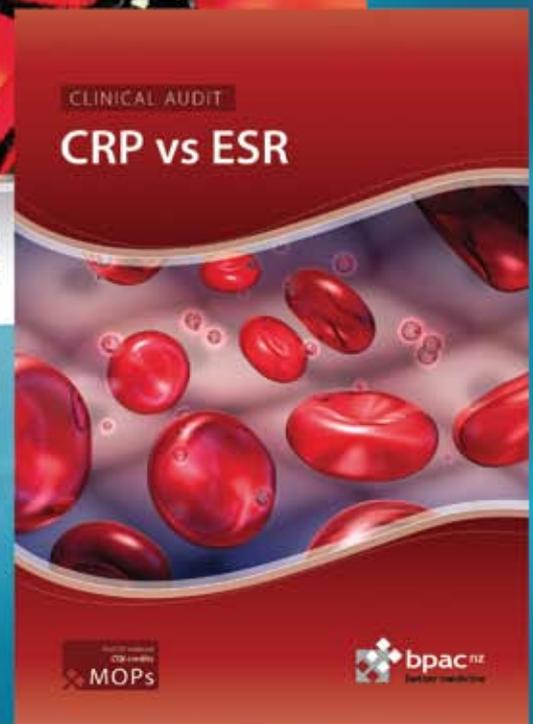
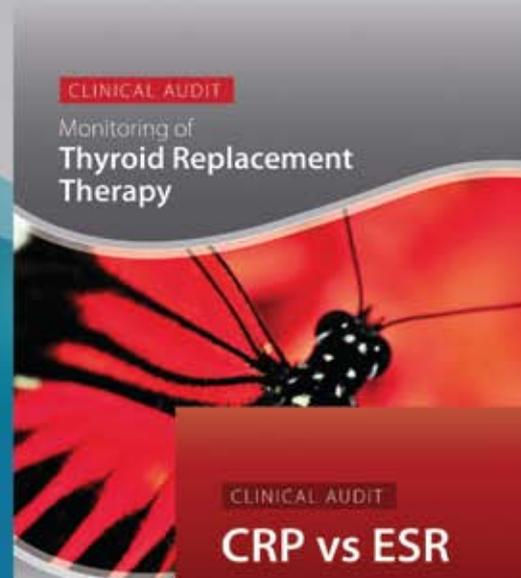
In a 2006 publication on ESR/CRP, *bpac*^{nz} recommended that both CRP and ESR should be tested simultaneously for patients in whom temporal arteritis was suspected.¹ However, this is no longer regarded as best practice and in October 2009, an update was published recommending CRP alone as the initial test.²

The use of ESR in the initial diagnosis of temporal arteritis is largely based on its inclusion in the 1990 American College of Rheumatology criteria for classification of temporal arteritis.³ However, this reference is now over 20 years old and the role of ESR as a routine test of the inflammatory response has since been questioned.

ESR and CRP results will sometimes appear discordant when investigating temporal arteritis. In most cases this will be a normal ESR with an elevated CRP, but an elevated ESR and a normal CRP, while unusual, is also consistent with temporal arteritis. In a study which examined the sensitivity of CRP and ESR, it was determined that elevated ESR had a sensitivity of 76% to 86% for temporal arteritis, while an elevated CRP had a sensitivity of 97.5%. When using the criteria of an elevated ESR or CRP, or both, the sensitivity was 99.2%.⁴

Applying this to a clinical context, it is considered that the 1.7% increase in sensitivity gained by using both ESR and CRP compared to the use of CRP alone is not clinically relevant. Any patient with a strong clinical history should have a temporal artery biopsy or empirical treatment irrespective of the results of laboratory tests.

CLINICAL AUDITS



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References

1. bpac^{nz} CRP vs ESR: Assessing and measuring the inflammatory response. bpac^{nz}, July 2005. Available from: www.bpac.org.nz
 2. bpac^{nz}. Report: CRP ESR & Thyroid function testing. bpac^{nz}, October 2009. Available from: www.bpac.org.nz
 3. Hunder GG, Bloch DA, Michel BA, et al. The American College of Rheumatology 1990 criteria for the classification of giant cell arteritis. *Arthritis Rheum* 1990;33(8):1122-8.
 4. Parikh M, Miller N, Lee A, et al. Prevalence of a normal C-reactive protein with an elevated erythrocyte sedimentation rate in biopsy-proven giant cell arteritis. *Ophthalmology* 2006;113(10):1842-5.
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