Letters

Management of sore throat in primary care

In the article by Jennifer Tran et al, 'Management of sore throat in primary care' (*AJGP* July 2018),[1] the authors are critical of the 'low use of throat swabs' in diagnosing group A streptococcus as a possible cause of sore throat. Because of potential delays in swab results, they advocate 'quick, accurate point-of-care tests such as rapid antigen detection'.

Unfortunately, the article makes no reference to the Australian Therapeutic Guidelines statement: '... *Streptococcus pyogenes* is ... part of the normal flora of the pharynx'.[2] This is despite the fact that even some of the cited references mention a 5–20% prevalence of streptococcus in the throat.[3] Many authors have found similar or even higher levels of asymptomatic carriage around the world over many years.[4–9]

The literature, therefore, would not seem to support either the statement 'the gold standard for diagnosis is a correctly taken throat swab with culture', or a proposal to rely on a rapid antigen test. Even Matthys et al, in suggesting the use of the antistreptolysin O (ASO) test as an alternative 'gold standard',[3] advises a threshold of a four-fold rise in ASO titres for diagnosis – hardly practical for most presentations.

It is indeed an ongoing challenge to identify the causative agent of sore throat, manage it correctly and be vigilant in the avoidance of inappropriate antibiotics, but 'further education about the inaccuracy of clinical features to diagnose GAS [group A streptococcus] sore throat', in the absence of truly meaningful investigations, may do little to resolve the longstanding difficulties faced by general practitioners in many countries.

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Reply

We thank Dr Gray for his comments on our paper.

We agree that the management of acute sore throat is challenging. As noted in our article, current Australian Therapeutic Guidelines recommend against antibiotic treatment for all patients with acute sore throat, except those at high risk of rheumatic fever, including Aboriginal and Torres Strait Islander peoples.[1] Our paper concluded that rapid point-of-care tests have a potential role in these high-risk groups to reduce empiric antibiotic prescribing without compromising prompt delivery of antibiotics to those with *Streptococcus pyogenes* infection.[2]

The aetiology of acute sore throat cannot be determined with confidence by clinical findings, including severity.[3,4] Compounding this uncertainty, *S. pyogenes* can be recovered from the pharynx of asymptomatic people, and so its presence, as detected by any method, cannot confirm causality. However, the presence of *S. pyogenes* is higher in symptomatic, compared with asymptomatic, individuals, and is more frequently recovered in those with more severe symptoms and signs.[3]

Currently, culture of a throat swab on an appropriate agar plate is the standard for finding *S. pyogenes* in the pharynx, with a sensitivity of 90–95%.[4] Newer rapid tests are highly sensitive and specific, and have the major practical advantage of a much faster turnaround time (minutes versus days).[5] As we have noted previously, streptococcal serology is not practicable in routine clinical practice.[6]

The management of sore throat is not straightforward and, as we concluded, we believe there is a need for more expansive, dedicated sore throat guidelines in Australia. An additional conclusion, as highlighted by Dr Gray, could be that there is a need for more accurate diagnostic tests for *S. pyogenes* pharyngitis. However, when used in the appropriate clinical setting, currently available microbiological tests with high negative predictive value can substantially reduce overall antibiotic prescription,[4] and newer rapid tests could reduce antibiotic use even further, including in high-risk groups.

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