

**S074b**

**2-hour Symposium**

**Pathophysiology and treatment of group A streptococcal infections: where are we going?**

**Group A streptococci in the throat: prevent, ignore or treat?**

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Family practitioners are often reminded that sore throats are invariably viral and that the proportion caused by group A streptococcus (GAS) is low, perhaps 5-15% for adults and 20-30% for children. Guidelines between different countries vary both with regard to diagnosis and treatment; North Americans advocate both, and some European countries neither. The latter approach is driven in part by reluctance to undertake routine diagnostic testing in primary care and a belief that testing cannot distinguish carriage from infection, coupled with concerns regarding antimicrobial consumption in nations where the complications of streptococcal sore throat are viewed simply as a minor inconvenience. To what extent is this a safe stance? There seems little doubt that antimicrobials can confer individual benefit in the setting of confirmed GAS throat infections in terms of reducing overall illness duration and reducing risk of severe complications such as quinsy. However, the benefits are small compared with overall harm in terms of antimicrobial consumption and rising resistance in countries where complications are rare. In contrast, antibiotics are initiated without delay to those at risk in countries such as New Zealand, driven in large part by the high rate of acute rheumatic fever amongst indigenous populations.

In the UK, consultations for sore throat fell markedly in the last two decades, possibly driven by greater population education regarding the aetiology of upper respiratory tract infections. Primary care guidelines recommend delaying the issue of antimicrobials for sore throat even where GAS is suspected, and health leaders are demanding further reductions in community prescribing. Are there risks associated with this approach, and have these been adequately weighed in the primary care evaluations undertaken? Certainly population level surges in scarlet fever and invasive group A streptococcal disease are not mentioned in any of the economic analyses undertaken, yet recent phenomena in England and Wales may suggest a possible link. We could also under-estimate the hazard to our disadvantaged populations at heightened risk from rheumatic fever or post-streptococcal glomerulonephritis. Active surveillance schemes for scarlet fever, invasive GAS, and post-streptococcal sequelae are recommended if we wish to pursue an agenda of non-treatment.