Diphtheria: are we ready for it?

Editor,—The article by Begg and Balraj discusses the adequacy of current control and containment measures for diphtheria.1 We agree with the authors that the diagnosis of Corynebacterium diphtheriae and Corynebacterium ulcerans has in the past often been delayed or missed altogether as many laboratories have ceased to culture throat swabs routinely for these organisms.

The Public Health Laboratory Service (PHLS) Standardisation of Clinical Bacteriology Methods Working Group recommends in their standard operating procedure (SOP) on the investigation of throat swabs that all throat swabs should be cultured routinely for C diphtheriae and C ulcerans using Hoyle’s tellurium medium.2

Reasons for this include:
- Immunocompromised patients do not present asymptomatic carriage of the organism
- Vaccinated individuals may still be susceptible
- There is a risk of indigenous transmission
- A major outbreak is possible
- Early recognition of a case allows for containment of the patient
- Treatment must be initiated at an early stage to reduce the risk of fatality.

With laboratories returning to this kind of routine screening, isolation of C diphtheriae and C ulcerans from both asymptomatic carriers and from patients with symptoms will be increased thereby minimising the potential for missed or delayed diagnosis. It will also allow for the collection of consistent epidemiological data on the presence of the organism in the population.

The PHLS has recently issued a standard method for the investigation of throat swabs as part of the 50 specimen SOPs to be issued to the PHLS during the next 18 months.3 These SOPs may also prove useful to microbiology laboratories other than the PHLS.

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1 Begg N, Balraj V. Diphtheria: are we ready for it? Arch Dis Child 1995;75:568-72.

Non-steroidal anti-inflammatory drugs may predispose to invasive group A streptococcal infections

Editor,—The suggestion that ibuprofen should be considered as an alternative to penicillin for the treatment of fever in young children warrants caution. There have been numerous reports suggesting an association between the use of non-steroidal anti-inflammatory drugs (NSAIDs) and the progression to severe invasive group A streptococcal infections, including necrotising fasciitis.4,5 NSAIDs may also mask important clinical features that may help in the early recognition of invasive group A streptococcal disease.

Prompt diagnosis and treatment of group A streptococcal infection has become increasingly important as there has been a worldwide resurgence in invasive group A streptococcal disease since the mid-1980s with the emergence of strains of increased virulence.6

Recently, it has been proposed that the underlying biochemical basis for the possible link between the use of NSAIDs and invasive group A streptococcal infection is the ability of NSAIDs to inhibit neutrophil functions and enhance cytokine (particularly tumour necrosis factor) production.7 In addition, by masking cardinal signs of inflammation, such as myalgia, arthralgia and localised swelling, these agents may delay the recognition of invasive group A streptococcal infection until signs of shock and multiorgan failure are apparent. This hypothesis may also apply to staphylococcal toxic shock syndrome.

Varicella is an important predisposing factor for both invasive group A streptococcal and staphylococcal infections in immunocompetent children.7 NSAIDs may be particularly dangerous in this context: their use has been associated with the progression to necrotising fasciitis and toxic shock syndrome.8

Antipyretics play an important part in the management of febrile young children with non-specific signs in whom the diagnosis is unclear. However, the possibility that NSAIDs may facilitate the invasion of group A streptococci should limit the use of these agents in patients with varicella or in those in whom the cause of fever is not known.

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