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HIV testing for adult patients with *Streptococcus pneumoniae* bacteraemia

An estimated 27% of adults living in the UK with HIV are undiagnosed.¹ Royal College of Physicians guidelines published in 2005 highlight the need for vigilance in recognition of clinical presentations which may herald underlying HIV infection, and include a list of such 'alert conditions'.²

Invasive infection with *Streptococcus pneumoniae* is one of the commonest causes of pneumonia and meningitis worldwide and creates a significant disease burden in the UK.³ It is also well documented in association with HIV infection,^{4,5} but does not feature in recent guidelines.²

We have explored the relationship between *Streptococcus pneumoniae* bacter-

aemia and HIV infection in a small UK cohort to investigate the extent to which invasive pneumococcal disease may be useful as a marker of HIV infection. We retrospectively evaluated all *Streptococcus pneumoniae* blood culture isolates identified over a 30-month period from August 2002 in a UK district general hospital. Hospital electronic records were used to identify those who had been tested for HIV infection.

Streptococcus pneumoniae was grown in 77 blood cultures from 66 patients, (age range one month to 98 years (Fig 1)). Out of the 66 patients, seven were HIV positive (10.6%), compared to an estimated baseline population HIV seroprevalence of 0.16%.¹ Of the patients with HIV infection, four were undiagnosed prior to their bacteraemic illness. The remaining 59 patients had no record of an HIV test. Two HIV positive patients had recurrent episodes of pneumococcal bacteraemia (at 11 and 13 months following index presentation). Given the higher prevalence of HIV in young adults, we analysed a sub-group aged 20–45. Of 21 patients in this group, five were HIV positive (24%).

Incidence of severe pneumococcal disease is highest in patients at extremes of age,³ but this epidemiology may change in populations with high HIV seroprevalence, in whom disease is also more likely to be recurrent. A proportion of the disease burden in young and middle-aged adults in our cohort is attributable to HIV co-infection (Fig 1). Our calculated HIV prevalence of 24% in patients aged 20–45 with pneumococcal bacteraemia may be an

under-estimate, as none of the remaining patients was tested for HIV.

We suggest that blood stream infection with *Streptococcus pneumoniae* in young adult patients without other clear risk factors for invasive pneumococcal disease should prompt clinicians to consider offering HIV counselling and testing in order to promote early diagnosis and timely treatment of HIV infection.

PHILIPPA C MATTHEWS

Specialist Registrar in Infectious Diseases and Microbiology
Oxford Radcliffe Hospitals NHS Trust

KOENRAAD VAN DEN ABEELE

Consultant in General Internal Medicine
Heatherwood and Wexham Park Hospitals
NHS Trust

STEPHEN DAWSON

Consultant in Genito Urinary Medicine
The Garden Clinic, Upton Hospital, Slough

MIKE MCINTYRE

Consultant in Medical Microbiology
Heatherwood and Wexham Park Hospitals
NHS Trust

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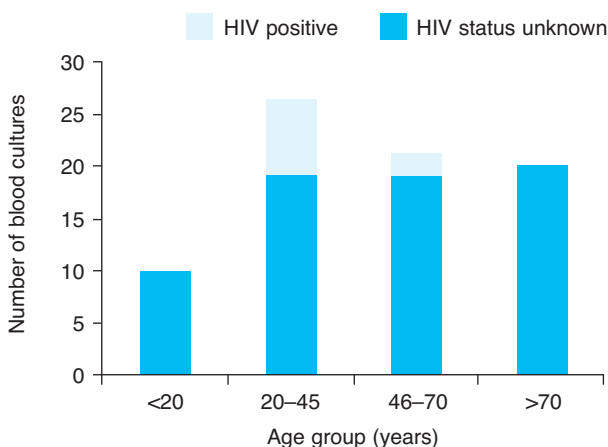


Fig 1. *Streptococcus pneumoniae* blood stream isolates by age and HIV status over a 30-month period at Heatherwood and Wexham Park Hospitals.