
**Reply**

**To the Editor**—We have answered most of the issues raised by Dr. Weinberg [1] in a previous letter [2]. In response to two specific points that he raises: Obviously, dapsone–iron protoxolate does not inhibit the growth of *Pneumocystis carinii* [3]. We apologize for this typographic error (corrected in [4]). In addition, we agree that *Yersinia* species must be considered as microorganisms to which patients with iron overload are susceptible. However, the consequences of iron overload on infections due to these microorganisms remain limited to thalassemic patients and those receiving hemodialysis.

**J.-L. Vilde and D. Salmon-Cérón**

*Service des Maladies Infectieuses et Tropicales, Hôpital Bichat-Claude Bernard, Paris, France*

**References**


---

**The Changing Epidemiology of Pneumococcal Bacteremia in Human Immunodeficiency Virus Infection**

**To the Editor**—The high incidence of pneumococcal disease in human immunodeficiency virus (HIV)–infected patients has been well documented [1–3]. There is a 7-fold increased risk of pneumococcal pneumonia [2] and an increase in the frequency of recurrent pneumococcal infection in HIV-infected patients [4, 5]. The incidence of pneumococcal bacteremia in AIDS patients has been ~1%/year in studies in San Francisco [3] and New Jersey [4] compared with 0.07%/year in the non–HIV-infected population. A significantly elevated incidence of pneumococcal bacteremia has also been noted in HIV-infected patients not meeting the current Centers for Disease Control and Prevention (CDC) criteria for AIDS [3, 4]. The serotypes involved and clinical course have been similar in both HIV-infected and uninfected patients, with the only notable difference being a lower mortality rate in HIV-infected patients [1, 6].

Because of this increased incidence of pneumococcal disease, the pneumococcal vaccine has been recommended as an early intervention in HIV patients [7]. Although there is often a poor response to vaccine administered late in the course of HIV infection [8], Weiss et al. [9] published that recent seroconvertors generate a “normal” humoral response to all vaccine components except serotype 8.

The US Navy has screened all active-duty members for HIV infection every 1–3 years since an initial required screening in 1985–1986. Routine pneumococcal vaccination of all newly diagnosed HIV-infected subjects began at our institution in 1989. Since 1990, trimethoprim-sulfamethoxazole (TMP-SMZ) has been the first option for primary *Pneumocystis carinii* pneumonia (PCP) prophylaxis in all patients with CD4 cell counts <250/μL. About 700 HIV-infected patients use our hospital and HIV clinic for their routine care; 30% have AIDS by the revised CDC criteria.

We performed a retrospective review of pneumococcal bacteremia in HIV disease at our institution by reviewing the hospital blood culture logs from July 1989 until October 1994 (64 months) to identify all cases of pneumococcal bacteremia. One hundred seventy-eight cases were seen at this hospital during that time. This list of 178 patients was cross-referenced to patients followed in the HIV clinic, and 8 cases of pneumococcal bacteremia were identified in 7 HIV-infected patients. Four patients had bacteremia in 1990, 2 in 1991, and 1 in 1993. All 7 patients met the current AIDS definition at the time of pneumococcal bacteremia.

The annual incidence of pneumococcal bacteremia in AIDS patients over the last 5 years at this hospital (0.90%) was similar to that found in previous studies [3, 4] but has dropped markedly over...
Table 1. HIV-infected patients diagnosed with pneumococcal bacteremia.

<table>
<thead>
<tr>
<th>Patient</th>
<th>Age, years at pneumococcal vaccine</th>
<th>Date of pneumococcal vaccine</th>
<th>Date of pneumococcal bacteremia</th>
<th>Last HIV serology</th>
<th>HIV serology</th>
<th>Last CD4 cell count/µL (%) before bacteremia</th>
<th>PCP prophylaxis</th>
<th>Other conditions</th>
</tr>
</thead>
</table>

NOTE. PCP, *Pneumocystis carinii* pneumonia; U, unknown; AP, aerosolized pentamidine; NHL, non-Hodgkin's lymphoma; CMV, cytomegalovirus; CAH, chronic active hepatitis; KS, Kaposi's sarcoma; ITP, idiopathic thrombocytopenic purpura; TMP-SMZ, trimethoprim-sulfamethoxazole; MAI, *Mycobacterium avium* - *Mycobacterium intracellulare* infection. All patients were male except patient 1.

The only case of pneumococcal bacteremia in an HIV-infected patient at our institution in the last 3 years occurred in a patient with AIDS who had received pneumococcal vaccination shortly after seroconversion in 1989 and who was receiving TMP-SMZ as primary PCP prophylaxis. The recovered organism was a multidrug-resistant serotype 19F with the following MICs: penicillin, 2.0 µg/mL; TMP-SMZ, 4/76 µg/mL; chloramphenicol and tetracycline, 16 µg/mL; erythromycin, 2 µg/mL; cefotaxime and ceftriaxone, 1 µg/mL; and vancomycin, <1 µg/mL.

We postulate that our downward trend in the frequency of pneumococcal bacteremia in HIV infection is a result of early identification of HIV infection, prompt pneumococcal vaccination, and primary PCP prophylaxis with TMP-SMZ. Early diagnosis of HIV infection and appropriate interventions appear effective in lowering pneumococcal bacteremia rates in HIV disease.

Kenneth C. Earhart and Mark R. Wallace

Departments of Internal Medicine (Infectious Disease Division) and Clinical Investigation, Naval Medical Center, San Diego, California

References