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## Letters

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### CHEMOPROPHYLAXIS FOR *PNEUMOCYSTIS CARINII* PNEUMONIA

To The Editors:

In their follow-up study of children born to HIV-infected women in Haiti, Jean et al.<sup>1</sup> report a very high mortality (60% of the HIV-infected infants died by 6 months of age compared with only 10% of HIV-infected infants born to Haitian mothers living in Miami at a time when there was only a limited use of antivirals). The authors suggest that overwhelming bacterial infections were responsible for most of the infant deaths in Haiti. The striking difference in mortality between the children in Haiti and those in Miami could be because prophylaxis for *Pneumocystis carinii* pneumonia (PCP) was not given to the infants in Haiti, as the authors state: "PCP is a rare occurrence in developing countries."

We agree that in developing countries PCP is only occasionally seen in adult AIDS patients.<sup>2</sup> In HIV-infected infants, however, PCP is probably a major cause of death.<sup>3</sup> In an autopsy study performed in Abidjan, Ivory Coast, PCP was diagnosed in 31% of HIV-infected children age <15 months compared with only 3% of HIV-infected adults.<sup>2,3</sup> To develop PCP a severe form of immunodeficiency is needed. Many adults with HIV infection in developing countries do not reach this stage, because they die earlier from more virulent infections such as *Salmonella* septicemia, bacterial pneumonia or tuberculosis. Infants have an immature immune system. The damage caused by HIV to this already weak immune system puts them at high risk for PCP.

Two recent randomized double blind, placebo-controlled clinical trials performed in HIV-infected adults in Abidjan showed that cotrimoxazole prophylaxis was able to significantly reduce morbidity and mortality.<sup>4,5</sup> In one of these trials (among HIV-infected tuberculosis patients) the relative risk for mortality in the cotrimoxazole group was 0.54.<sup>6</sup> We suspect that in HIV-infected infants cotrimoxazole prophylaxis may be even more beneficial.

1. Jean SS, Pape JW, Verdier RI, et al. The natural history of human immunodeficiency virus 1 infection in Haitian infants. *Pediatr Infect Dis J* 1999;18:58-63.
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3. Lucas SB, Peacock CS, Hounnou A, et al. Disease in children infected with HVI in Abidjan, Côte d'Ivoire. *Br Med J* 1996;312:335-8.
4. Sasan-Morroko, Wiktor SZ, Abouya L, et al. Significant reduction in mortality attributable to cotrimoxazole prophylaxis among HIV-infected tuberculosis patients in Abidjan, Ivory Coast [Abstract 12461]. Presented at the Twelfth World AIDS Conference, Geneva, Switzerland, June 28 to July 3, 1998.
5. Anglaret X, Chene G, Attia A, et al. Early cotrimoxazole chemoprophylaxis for HIV-infected adults in Africa: a double blind placebo controlled trial, Abidjan, Ivory Coast [Abstract 12646]. Presented at the Twelfth World AIDS Conference, Geneva, Switzerland, June 28 to July 3, 1998.
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#### IN REPLY:

The letter from Drs. Colebunders, Denolf and Verdonck points out an interesting and potentially significant component of the mortality observed in HIV-infected children in Haiti and other developing countries. At the time of our study the value of cotrimoxazole prophylaxis in developing countries was questioned. There is still no controlled study of its efficacy, although recent autopsy series do suggest the potential value of incorporating cotrimoxazole as prophylaxis. The clinical picture in our children at the time of death was not that of an overwhelming pneumonitis with hypoxia, tachypnea and increased work of breathing. However, both our study and the letter from Dr. Colebunders and colleagues point out how much remains to be learned about the clinical course of HIV-infected children in developing countries.

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