Treating Opportunistic Infections among HIV-Exposed and Infected Children: Recommendations from CDC, the National Institutes of Health, and the Infectious Diseases Society of America

Lynne M. Mofenson, James Oleske, Leslie Serchuck, Russell Van Dyke, and Cathy Wilfert

1National Institutes of Health, Bethesda, Maryland; 2New Jersey Medical School, Newark; 3Tulane University School of Medicine, New Orleans, Louisiana; 4Elizabeth Glaser Pediatric AIDS Foundation, Chapel Hill, North Carolina

In 2001, CDC, the National Institutes of Health, and the Infectious Diseases Society of America convened a working group to develop guidelines for therapy of human immunodeficiency virus (HIV)-associated opportunistic infections to serve as a companion to the Guidelines for Prevention of Opportunistic Infections Among HIV-Infected Persons. In recognition of unique considerations related to HIV infection among infants, children, and adolescents, a separate pediatric working group was established.

Because HIV-infected women coinfected with opportunistic pathogens might be more likely to transmit these infections to their infants than women without HIV infection, guidelines for treating opportunistic pathogens among children should consider treatment of congenitally acquired infections among both HIV-exposed but uninfected children and those with HIV infection. In addition, the natural history of opportunistic infections among HIV-infected children might differ from that among adults. Compared with opportunistic infections among HIV-infected adults, which are often caused by reactivation of pathogens acquired before HIV infection when host immunity was intact, opportunistic infections among children often reflect primary acquisition of the pathogen and, among children with perinatal HIV infection, infection acquired after HIV infection has been established and begun to compromise an already immature immune system. Laboratory diagnosis of opportunistic infections can be more difficult with children. Finally, treatment recommendations should consider differences between adults and children in terms of drug pharmacokinetics, dosing, formulations, administration, and toxicities. This report focuses on treatment of opportunistic infections that are common in HIV-exposed and infected infants, children, and adolescents in the United States.

INTRODUCTION

In 1995, the U.S. Public Health Service (USPHS) and the Infectious Diseases Society of America (IDSA) developed guidelines for preventing opportunistic infections among adults, adolescents, and children infected with human immunodeficiency virus (HIV) [1]. These evidence-based guidelines, developed for health-care providers and patients, were revised in 1997, 1999, and 2002 [2–4]. Although individual guidelines for treatment of different opportunistic infections can be found in multiple sources, a compilation of recommendations for treatment and management of common HIV-associated opportunistic infections into a single document has not been available. As a result, in 2001, the National Institutes of Health (NIH), IDSA, and CDC convened a working group to develop guidelines for therapy of HIV-associated opportunistic infections,