

7. Goldman M, Blajchman MA. Blood product-associated bacterial sepsis. *Transfusion Medicine Reviews* 1991;5:73-83.
8. Braine HG, Kickler TS, Charache P, et al. Bacterial sepsis secondary to platelet transfusion: an adverse effect of extended storage at room temperature. *Transfusion* 1986;26:391-393.
9. Punsalang A, Heal JM, Murphy PJ. Growth of gram-positive and gram-negative bacteria in platelet concentrates. *Transfusion* 1989;29:596-599.
10. Sazama K. Reports of 355 transfusion-associated deaths: 1976 through 1985. *Transfusion* 1990;30:583-590.
11. Morrow JF, Braine HG, Kickler TS, Ness PM, Dick JD, Fuller AK. Septic reactions to platelet transfusions: a persistent problem. *JAMA* 1991;266:555-558.
12. Sambrook J, Fritsch EF, Maniatis T. *Molecular Cloning*. New York, NY: Cold Spring Harbor Press; 1989;1.25-1.28.
13. Dean AG, Dean JA, Burton AG, Dicker R. *EPI-INFO Version 5: Computer Programs for Epidemiologic Investigations*. Atlanta, GA: Epidemiology Program Office, Centers for Disease Control, 1988.

HIV Transmission Reported in Household Setting

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In the December 16, 1993, issue of the *New England Journal of Medicine*, investigators from the University of Medicine and Dentistry of New Jersey and the Centers for Disease Control and Prevention (CDC) described a case in which a preschooler (child 1) with HIV infection apparently transmitted HIV to a younger child (child 2) living in the same household. Transmission most likely involved exposure of the skin or mucous membranes of child 2 to child 1's HIV-infected blood. Other routes of transmission were ruled out, including sexual abuse, receipt of blood transfusion, and nosocomial transmission during a recent hospital visit. During the period when the transmission occurred, there were multiple opportunities for blood exposure; child 1 had frequent nosebleeds, bleeding from the mouth, and a

laceration. Although transmission of HIV has been known to occur rarely during skin and mucous membrane contact with HIV-infected blood, few such cases have been reported between persons sharing a household.

In another case to be reported by the CDC in the *Morbidity and Mortality Weekly Report*, an adolescent with hemophilia became infected with HIV from his older brother, who had hemophilia and also was HIV-infected. Transmission most likely involved exposure of the younger brother to the HIV infected blood of the older one. On one occasion, the two shaved with the same razor and reported that both cut themselves with the razor. Both brothers administered intravenous infusions at home and shared the same needle disposal container; however, neither brother could recall being exposed to the other's needles.

In an accompanying editorial in the same issue of the *New*

England Journal of Medicine, the CDC emphasized that transmission in the household setting is extremely rare. In 17 studies involving more than 1,100 persons who lived in the same households with HIV-infected persons, none became infected. Nevertheless, to prevent even such rare occurrences, precautions should be taken to prevent exposure to the blood of persons who are HIV infected, at risk for HIV infection, or whose risk status is unknown.

The editorial also stressed that rare cases such as these should be viewed in perspective. The vast majority of HIV infections are acquired through well-recognized routes—through sex or contaminated needles or from mother to child. The CDC has no plans to revise its 1985 guidelines for school attendance, daycare, or foster care of HIV-infected children based on these rare cases.