

Occupational transmission of HIV in health care workers. A review.

Eur J Public Health 1995; 5: 175-86.

Fitch K, Pérez Álvarez L, Andrés Medina R, Nájera Morrondo R.

Abstract

Health care workers have a small but real risk of acquiring HIV infection as a result of occupational exposure. In this paper, we review all reports in the scientific literature from 1984 through to December 1993 of confirmed and probable cases of HIV seroconversion after a specific occupational exposure. A total of 64 confirmed cases have been reported, 24 in Europe, 36 in the USA and 4 in other countries. Most seroconversions have resulted from percutaneous exposure (91%) to AIDS patients (62%), usually caused by hollow bore needlestick injuries inflicted during blood drawing procedures. Almost all seroconversions have been detected within 6 months of exposure (94%) and have usually been preceded by an episode of acute illness (73%). Ten seroconversions have occurred in spite of partial or complete courses of zidovudine prophylaxis. An additional 113 probable cases have been reported, 75 in the USA, 35 in Europe and 3 in other countries. Aggregating the results of the prospective studies carried out, it is calculated that the risk of seroconversion following percutaneous exposure is 0.33% - 3 in 1000 exposures (95% CI: 0.21-0.52%), while the risk following mucocutaneous exposure is much lower (0.04%, 95% CI: 0.006-0.31%). The documented failure of zidovudine prophylaxis following occupational exposure in a number of instances indicate its effect is, at best, only partial; furthermore, exposure to source patients who have been receiving the drug may lead to transmission of zidovudine-resistant strains of HIV. Risk Factors for occupational exposure to HIV and for transmission, given that an exposure has occurred, are discussed.