

**Distribution:** Public Hospitals  
Private Hospitals

**Subject:** Post Exposure Prophylaxis for Health Care Workers exposed to HIV.

**Purpose:** To advise Public and Private Hospitals of the results of a collaborative retrospective case-control study of HIV sero conversion in Health Care Workers after percutaneous exposure to HIV infected blood.

Your attention is drawn to the results of a collaborative retrospective case-control study of HIV sero conversion in health care workers (HCWs) after percutaneous exposure to HIV infected blood using data from United States, France and the United Kingdom.

The study suggests that risk factors for HIV transmission include certain characteristics of the exposure and the source patient, in addition, **post exposure use of Zidovudine (ZDV/AZT) by HCWs was associated with a lower risk for HIV transmission.**

Analysis of the data indicates that the risk for HIV infection among HCWs who use Zidovudine was reduced by approximately 79%.

Table 1 from the report - CDC Case-Control Study of HIV Seroconversion in Health-Care Workers After Percutaneous Exposure to HIV-infected Blood - France, United Kingdom and United States, January 1988-August 1994. MMWR 1995; 44; 50; 929-933 - is reproduced for your information.

**TABLE 1**  
**Risk factors for HIV infection in health-care workers after percutaneous exposure to HIV-infected blood, based on a case-control study - France, United Kingdom and United States, January 1988-August 1994**

Risk factor	Adjusted odds ratio*	(95% CI**)
Deep Injury	16.1	(6.1-44.6)
Visible blood on device	5.2	(1.8-17.7)
Procedure involving needle placed directly in a vein or artery	5.1	(1.9-14.8)
Terminal illness in source patient	6.4	(2.2-18.9)
Postexposure use of zidovudine	0.2	(0.1-0.6)

\*All were significant at  $p < 0.01$

\*\*Confidence interval

8/1/96

1/1996

Regional Office or  
Public Health Branch  
(Tel: 039 616 7212)

Date

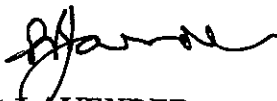
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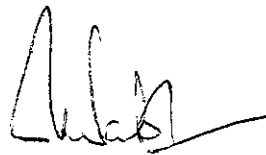
The MMWR goes on to point out that "Although failures of post exposure ZDV to prevent HIV infection in HCWs have been documented, this is the first study of HCWs exposed to HIV that assesses the effectiveness of ZDV as post exposure prophylaxis. Studies involving animals have yielded inconclusive results. In studies involving humans, ZDV was reported to reduce the rate of perinatal HIV transmission and to be beneficial in treating early HIV infection; however, the implications of these results for post exposure prophylaxis are uncertain. The short term toxicity of ZDV in HCWs primarily has been gastro-intestinal discomfort and fatigue."

In view of the immediate public health implications, for the prevention of HIV infection in health care workers following percutaneous exposure to HIV infected blood, it is desirable that the findings of this new study be widely circulated within your institution.

For further information contact Dr G J Rouch, Chief Health Officer Tel:9616 7212.



**G LAVENDER  
ACTING DIRECTOR  
PUBLIC HEALTH**



**DR M WALSH  
DIRECTOR  
ACUTE HEALTH SERVICES**