

EMERGENCY DEPARTMENT POSTEXPOSURE PROPHYLAXIS FOR HIV EXPOSURE

Epidemiology of HIV in Canada

This 3-article series discusses potential body-fluid exposures and postexposure prophylaxis (PEP) in the emergency department (ED). Mallin and Sinclair (p. 36) provide a brief overview of occupational and non-occupational exposures in the ED. Spence (p. 38) addresses the issue of whether EDs should provide PEP for non-occupational exposure to HIV. Vertesi (p. 46) provides a tool to assess the risk of seroconversion and help guide PEP decisions. This is a conceptual tool to help physicians and patients understand the likely risks and benefits of PEP. It is not a precise mathematical model to quantify risk.

In the Canadian general population 50 259 positive HIV tests have been reported to the Centre for Infectious Disease Prevention and Control (CIDPC) since testing began in 1985.¹ The CIDPC suspects there may be up to 15 000 more Canadians who are HIV positive but have not been tested. Positive HIV tests have significantly decreased in the men who have sex with men demographic, and the heterosexual exposure group has been slowly increasing (Fig. 1). Adult women account for 14.4% of the positive HIV reports between 1985 and 2001. It is concerning that the proportion of women who tested HIV positive has increased from 10.7% (1985) to 24.9% (2001). Women in the 15–29-year-old age group who test positive for HIV have shown the highest rate of change: from 15% (1985) to almost 45% (2001). Reaching teenagers and young

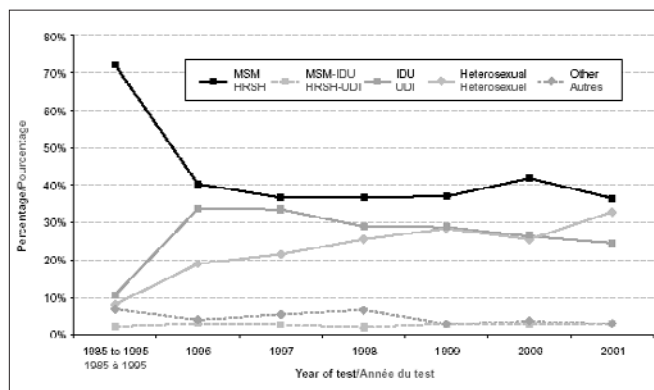


Fig. 1. Proportion of adult positive HIV test reports by exposure category and year of test.¹ Reproduced with permission from Health Canada. MSM = men who have sex with men; IDU = intravenous drug users; HRSH = homme ayant des relations sexuelles avec des hommes; UDI = l'utilisation de drogues par injection.

adults for HIV counselling, PEP and the possible increasing burden of neonatal transmission of HIV are challenges for health care providers in Canada.

Possible HIV transmission and infection confronts emergency physicians in 2 patient groups — occupational and non-occupational exposures. The occupational group can be divided into health care workers and nonhealth care workers. A US Centers for Disease Control and Prevention (CDC) study estimates that an average of 385 000 needle-stick injuries occur annually in US hospitals, approximately 30 “reported” needle-stick injuries per 100 beds per year.² Little data exists for outpatient settings.

Some people believe that PEP is an effective HIV treatment that minimizes the danger of high-risk activities.³ This may explain the plateau and increase of HIV infection in some groups. Considering its expense, significant failure rate and high incidence of side effects, PEP cannot be considered a cure. Primary prevention, public education and occupational safety strategies remain the mainstay for controlling the spread of HIV.

Current PEP recommendations are beyond the scope of this article, but can be found at the CDC Web site.⁴ They include the current medication combinations, rationale for choice, side effects and assistance in counselling for hepatitis B and C as well as HIV infections.

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