A randomised prospective study to evaluate a rapid HIV-antibody assay in the management of cases of percutaneous exposure amongst health care workers

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A rapid start of post-exposure prophylaxis with an antiretroviral regime is recommended after percutaneous exposure to blood from an HIV-positive source. Since the HIV-antibody status of the source is usually not known at the time of injury, antiretroviral treatment is started pending the results of HIV testing of the source. A randomised prospective study was designed to compare the use of a rapid-screening assay in the management of cases of percutaneous exposure with the conventional procedure. Prior to the comparative study, the accuracy of a rapid-screening assay performed by non-laboratory trained personnel was evaluated. 123 blinded HIV-positive and HIV-negative samples were correctly identified. In a randomised comparison with the conventional procedure, the application of the rapid-screening assay resulted in a significant reduction of psychological stress, drug use and cost. The estimated net benefit per case was CHF 93.-(62 US$). This study strongly supports the use of the rapid-screening assay in the management of post-exposure prophylaxis for HIV after percutaneous exposure in health care workers.

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