

[Water births and the exposure to HIV].

[Article in German]

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The risk of a work related HIV-exposure or infection to midwives, or other HCW, in attending waterbirths of (possible unrecognized) HIV-positive women is unknown. Our goal was the quantification of the loss of blood of the childbearing woman after a waterbirth into the waterpool, in taking pool-water-samples of 14 different waterbirths and measuring the hemoglobin in the plasma, and then correlating the mean found loss of blood and the mean quantity of poolwater with a hypothetical HIV-RNA viral load of 10(3)-10(6) copies per milliliters (ml) blood. All attended waterbirths were evaluated with a questionnaire regarding: parity of the child-bearing woman; serostatus for HIV/Hepatitis-B (HBV) and Hepatitis-C (HCV); length of the birth-process; perineum-rupture or not, etc. Questions concerning the HCW in implementing universal precautions like: type of gloves and garment used, if at all; duration of water contact with the hands; existing skin lesions; HBV-vaccination-status; years of professional experiences as a midwife; how many waterbirths attended etc. were also evaluated. The mean calculated loss of blood into the pool was 300 ml, the mean pool-water content 633 liters. With a hypothetical (maximal) HIV-RNA viral load of 10(6) copies per ml blood, we calculated a mean HIV-RNA viral load of 476 copies per ml pool-water. We also found 37% of the interviewed midwives (n = 14) to have skin lesions on hands or fingers; 1 received splashes into her (unprotected) face and 1 was not immunized against HBV. The mean loss of blood of 300 ml into the pool is a relevant amount. The skin-contact of the HCW with the potentially contaminated water is the norm, because of the failure of the type of used gloves. Because of the diluting effect of the poolwater, we estimate the potential risk for a HIV-exposure to intact skin as minimal and, therefore a potential HIV-infection as "low level" and to be unlikely. However, a risk for nosocomial HBV-infection is significantly higher. We recommend wearing long-sleeved gloves, waterproofed garment, and HBV-vaccination to all HCW.

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