

7. After accidents resulting in bleeding, contaminated surfaces should be cleaned with household bleach freshly diluted 1:10 in water.

8. Devices that have punctured the skin, such as hypodermic and acupuncture needles, should be steam sterilized by autoclave before reuse or safely discarded. Whenever possible, disposable needles and equipment should be used.

9. When seeking medical or dental care for intercurrent illness, these persons should inform the individuals responsible for their care of their positive antibody

status so that appropriate evaluation can be undertaken and precautions taken to prevent transmission to others.

10. Testing for HIV antibody should be made available to individuals who may have been infected as a result of their contact with a seropositive person (e.g. sexual partners, persons with whom needles have been shared, and infants born to seropositive mothers).

(Source: Discussions of the Advisory Group on AIDS, PAHO, December 1986.)

Expanded Program on Immunization-Joint WHO/UNICEF Statement on Immunization and AIDS

The risk of transmitting HIV infection through immunization

Infection with human immunodeficiency virus (HIV) can occur when injections are given using unsterile needles or syringes. Under the Expanded Program on Immunization (EPI) and the stimulus of achieving the goal of Universal Childhood Immunization by 1990, national programs are now increasing the number of injections given to children for the purpose of immunization. What are the risks of HIV infection from injections given for immunization in countries where the EPI target diseases are serious health problems?

The risk of an injection transmitting HIV infection is zero if a sterile needle and a sterile syringe are used. The vast majority of persons who provide immunization are trained health workers who know how to sterilize needles and syringes. Correct sterilization practices are now receiving special emphasis in every country with an EPI. Injections for immunization are among the safest injections a child receives.

The potential for spread of HIV infection in childhood immunization sessions is low even when sterilization practices are below standard. First, the efficiency of HIV transmission through injection is quite

low. Second, immunization entails only a small number of injections. Third, immunization involves small needles which do not become grossly contaminated with blood.

Immunization programs in developing countries are now preventing almost a million deaths a year from measles, neonatal tetanus, and whooping cough. Tragically, these diseases still cause some 3.5 million deaths each year in unimmunized children.

Halting immunization efforts because of the fear of AIDS would increase deaths among children, while doing little to stop HIV transmission. The major risk for HIV infection of children is infection of the mother, with spread to the child before, during or shortly after birth. A second risk is receiving blood transfusions which are not screened for HIV contamination. HIV may also be transmitted to children by injection. However, children thought to have been infected by this route usually have received a large number of injections for treatment. In the environment in which this was documented, many such injections were given outside of the health system with little or no attention to sterilization.

Immunization programs should continue to be vigorously pursued in all countries. All programs should ensure that each injection is given with a single sterile needle and a single sterile syringe.

The selection of injection equipment

WHO and UNICEF recommended re-usable syringes and needles for use in developing countries.¹ They should be steam-sterilized between uses. Disposable needles and syringes should only be used if it can be ensured that they will actually be destroyed after a single use. Jet injectors may also provide an alternative. However, until further studies clarify the risks of disease transmission, their use should be restricted to special circumstances where the use of needles and syringes is not feasible because of the large numbers of persons to be immunized within a short period of time.

Immunizing HIV-infected individuals

In October, the EPI Global Advisory Group considered the problem of immunizing children with AIDS.² They concluded:

“In countries where human immunodeficiency virus (HIV) infection is considered a problem, individuals should be immunized with the EPI antigens according

¹WHO/UNICEF Joint Guidelines: Selection of injection equipment for the Expanded Program on Immunization. EPI Technical Series No. 2, Document WHO/UNICEF/EPI.TS/86.2, October 1986.

²See *Weekly Epidemiological Record* 62(5):21-23, 1987.

Table 1. Recommendations on the use of EPI antigens in HIV-infected individuals in countries where the EPI target diseases remain important causes of morbidity.

	Vaccine	Asymptomatic	Clinical AIDS
Infants	BCG	yes	no
	DPT	yes	yes
	OPV	yes	yes
	IPV	yes	yes
	Measles	yes	yes
Women	Tetanus toxoid	yes	yes

to standard schedules. This also applies to individuals with asymptomatic HIV infection. Unimmunized individuals with clinical (symptomatic) AIDS in countries where the EPI target diseases remain serious risks should not receive BCG, but should receive the other vaccines (Table 1).

In general, live vaccines are not given to immunocompromised individuals, but in developing countries, the risk of measles and poliomyelitis in unimmunized infants is high and the risk from these vaccines, even in the presence of symptomatic HIV infection, appears to be low.”

(Source: *Weekly Epidemiological Record* 62(9):53-54, 1987.)

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Changes in Premature Mortality: United States of America, 1983-1984

Premature mortality in the United States of America, as measured by years of potential life lost before age 65 (YPLL), increased from 1983 to 1984 for the first time since 1980. Total YPLL from all causes of death increased from 11,712,000 in 1983 to 11,761,000 in 1984, a 0.4% increase. The rate of YPLL per 1,000 persons under 65 years old, however, decreased by 0.4% from 1983's level to 56.5/1,000 persons. An increase of 1.5 million persons under 65 years of age accounts for this discrepancy.

The relative rankings of the leading causes of YPLL did not change substantially from 1983 to 1984. The

only change was cerebrovascular diseases replacing chronic liver diseases as the eighth leading cause of YPLL. Unintentional injuries (accidents) continue to head the list, accounting for 20% of the total YPLL, followed by malignant neoplasms (15%), diseases of the heart (13%), and suicides/homicides (11%).

The rate of YPLL per 1,000 persons increased for eight of the 12 leading causes (Figure 1). The largest proportionate increase in the rate of YPLL was recorded for cerebrovascular diseases, up 13.1%. Increases in YPLL rates were also noted for prematurity, up 3.3%, sudden infant death syndrome, 2.7%;