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James K. Stewart, Director

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# Precautionary measures and protective equipment: Developing a reasonable response

Theodore M. Hammett, Ph.D., Abt Associates, Inc.

## Introduction

Personnel in criminal justice agencies are becoming concerned that a range of job-related incidents may place them at risk of being infected with human immunodeficiency virus (HIV)—the AIDS virus. These include assaultive and disruptive behaviors by suspects and offenders (including biting and spitting), providing CPR and first aid, body removal,

evidence collection, and evidence handling in crime laboratories.

This Bulletin delineates a reasonable response to the actual level of risk of infection with HIV present in the performance of criminal justice duties. In developing policies and procedures, the objective is to be sufficiently and appropriately careful without overreacting; in other words, to take all necessary steps to reduce the risk of

HIV transmission without compromising effective performance of duties.

## General issues: The need for specific AIDS policies and effective educational programs

Before summarizing specific precautionary measures and protective

### From the Director

Acquired Immunodeficiency Syndrome—AIDS—has been called the most serious public health problem in the United States and worldwide today. Since it first appeared in 1981, there has been an enormous amount of uncertainty and fear about this fatal disease. Because they may be in contact with intravenous drug users and others at high risk for the disease, criminal justice professionals understandably are concerned about becoming infected with the AIDS virus while carrying out their duties.

Until a vaccine or cure for AIDS is found, education is the cornerstone of society's response to this deadly disease. Accurate information can help

dispel misinformation about the disease and its transmission, thus enabling criminal justice personnel to continue to perform their duties in a safe and professional manner.

Since 1985, the National Institute of Justice has worked with the Centers for Disease Control and other public health officials to provide important authoritative medical information about AIDS to criminal justice professionals.

Two special reports on AIDS—as it relates to corrections and law enforcement agency procedures—have been published and widely disseminated. This AIDS Bulletin is part of a new series designed to inform criminal justice professionals about the disease and its implications for criminal justice

agencies. Future bulletins will summarize agency policies relating to AIDS, education programs, and legal and labor relations issues.

President Reagan has said that the AIDS crisis "calls for urgency, not panic... compassion, not blame... understanding, not ignorance." The National Institute of Justice is working to ensure that criminal justice professionals have the accurate information they need to understand and deal with the risks created by AIDS. Until medical science can bring this deadly disease under control, our best defense is a well-informed citizenry.

James K. Stewart  
Director

equipment, several general points must be emphasized. First, agencies should develop and enforce appropriate written AIDS policies and procedures. Obviously, these will vary according to the type of agency and its specific duties, but uniform and consistently applied policies help to eliminate confusion and avoid embarrassing and unnecessary incidents resulting from overreaction or misinformation.

Second, quality education and training on AIDS are vital for all staff. Agencies should provide regular sessions which present up-to-date facts about AIDS and the transmission of HIV and which afford opportunity for staff to have their specific questions and concerns addressed by knowledgeable trainers. Implementation of procedures and precautionary measures will only be as good as the AIDS education and training provided to personnel. Training programs can effectively present the rationale behind policies and procedures and thus may be critical in gaining staff support and cooperation.<sup>1</sup> Further, good training can equip criminal justice personnel to be "educators" on AIDS for offenders and others with whom they come into contact in the larger community.

## General infection control procedures

The Centers for Disease Control (CDC) has promulgated guidelines for prevention of HIV transmission in the workplace.<sup>2</sup> Many of these are relevant to criminal justice personnel and ought to be incorporated into agencies' AIDS policies. At the heart of these guidelines are the following principles:

- avoid needlesticks and other sharp instrument injuries;

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*The Assistant Attorney General, Office of Justice Programs, coordinates the activities of the following program Offices and Bureaus: the Bureau of Justice Statistics, National Institute of Justice, Bureau of Justice Assistance, Office of Juvenile Justice and Delinquency Prevention, and the Office for Victims of Crime.*

- wear gloves when contact with blood or body fluids is likely;
- use disposable shoe coverings if considerable blood contamination is encountered;
- keep all cuts and open wounds covered with clean bandages;
- avoid smoking, eating, drinking, nailbiting, and all hand-to-mouth, hand-to-nose, and hand-to-eye actions while working in areas contaminated with blood or body fluids;
- wash hands thoroughly with soap and water after removing gloves and after any contact with blood or body fluids;
- clean up any spills of blood or body fluids thoroughly and promptly, using a 1:10 household bleach dilution;
- clean all possibly contaminated surfaces and areas with a 1:10 household bleach dilution; and
- place all possibly contaminated clothing and other items in clearly identified impervious plastic bags.

## Judgment and consistency in implementation

Two key implementation issues regarding these general infection control principles must be emphasized: judgment and consistency. Precautionary measures should always be commensurate with the risk involved. Obviously, criminal justice personnel cannot predict with certainty when they will encounter blood or body fluids in the course of their duties. In almost any situation, there may be the potential for such contact. However, it would be an unnecessary overreaction to wear gloves or shoe coverings at all times. Such measures could also seriously undermine the critical educational message that HIV infection is not transmitted by casual contact.

Instead, criminal justice personnel should exercise their professional judgment as to when they believe there is a reasonable likelihood of contact with blood or body fluids and exercise reasonable care in those situations, just as they do in addressing other types of risks common in their work.

Consistency is also critical in the implementation of these precautions. They should be used when there is a reasonable likelihood of contact with the blood or body fluids of *anyone*, regardless of whether they are known or suspected to be infected with HIV. These procedures will be effective in avoiding many other infections and diseases, including Hepatitis-B. As a general rule, all unprotected contact with blood or body fluids should be avoided.

## Specific situations and incidents

The remainder of this Bulletin summarizes precautionary measures relevant to specific types of incidents and situations that may be encountered by criminal justice personnel.

### Human bites

To address concerns about being bitten by infected individuals, agencies should educate staff on the extremely low risk of becoming infected in this way. No cases of HIV infection or AIDS have been traced to human bites or exchange of saliva. This leaves blood-to-blood contact as the only means of infection through a bite. However, it is almost always the perpetrator of the bite who comes into contact with the blood of the victim. The victim cannot be infected by the blood of the perpetrator unless the perpetrator of the bite has blood in his or her mouth which then comes into contact with the victim's blood.

While the risk of infection through human bites is already very low, the following simple precautions will minimize the risk of HIV and other infection as well as promote basic hygiene:

- encourage "backbleeding" by applying pressure and "milking the wound," as with a snakebite;
- wash the area thoroughly with soap and hot water; and
- seek medical attention as soon as possible.

HIV antibody testing of the victim and perpetrator of the bite may be appropriate. However, several factors must be considered. First, laws in some

States prohibit testing without informed consent of the subject. Second, anyone considering being tested should be thoroughly counseled on the meaning of the results and the possible negative effects on individuals' lives in terms of access to insurance, employment, and housing, if a positive result were to be divulged. Third, knowledge of antibody status of either or both of the individuals involved in the incident should not change the medical response to the victim's case: the same patient surveillance and care of the wound in all cases. This is because there is always the possibility of a false negative test or a negative result based on blood drawn during the lag time between infection and the appearance of antibodies (usually within 6 to 12 weeks, but sometimes longer).

### **Searches and evidence handling**

Although the risk of HIV infection from being cut or punctured by contaminated needles or other sharp instruments appears to be very low,<sup>3</sup> many criminal justice personnel are concerned about such incidents. Cuts, needlesticks, and puncture wounds might be sustained by officers while searching suspects, motor vehicles, or cells, or while handling evidence in a variety of settings. There is particular concern regarding searches of areas where sharp objects may be hidden from view—such as pockets and spaces beneath car seats. The following precautionary measures will help to minimize the risk of infection:

- whenever possible, ask suspects to empty their own pockets;
- whenever possible, use long-handled mirrors to search hidden areas;
- if it is necessary to search manually, always wear protective gloves and feel very slowly and carefully;
- use puncture-proof containers to store sharp instruments and clearly marked plastic bags to store other possibly contaminated items; and
- use tape—never metal staples—when packaging evidence.<sup>4</sup>

Rubber gloves are currently the only type suitable for conducting searches. Although they can provide some

protection against sharp instruments, rubber gloves are not puncture-proof. Moreover, there is a direct tradeoff between level of protection and manipulability. In other words, the thicker the gloves, the more protection they provide, but the less effective they are in locating objects. Agencies should select the thickness of glove which provides the best balance of protection and search efficiency.

### **Laboratory analysis of evidence**

Many of the general infection control procedures and the precautionary measures for evidence handling summarized above are applicable to the laboratory setting. However, the following procedures should also be followed:<sup>5</sup>

- all cuts and needlesticks involving possibly contaminated instruments should be promptly reported to a designated safety officer so that proper records are maintained and appropriate medical consultation can be provided;
- hands should be washed frequently, but especially before eating, drinking or smoking and after completing analytical work (liquid or granular soap is preferable to bar soap);
- all personnel who have direct or indirect contact with blood or body fluids should wear gloves;
- gloved hands should not contact other items which may be touched by ungloved personnel;
- gowns, laboratory coats, or plastic aprons should be worn in all laboratory areas;
- face shields or protective eyeglasses and masks should be worn if there is potential for spattering of blood or body fluids;
- smoking, eating, and drinking should be prohibited;
- fingers, pencils, and other objects should be kept out of mouths;
- mouth pipetting should be prohibited;
- specimens should be properly packaged and labeled at all times;
- special receptacles should be maintained for contaminated wastes.

### **Cardiopulmonary resuscitation (CPR)**

Criminal justice personnel are also concerned about infection with HIV through administration of CPR. Agencies should respond to these concerns by stressing the research showing the extreme unlikelihood of HIV transmission through saliva.

At the same time, agencies should make protective masks or airways available to officers and provide training in their proper use. Devices with valves to prevent the patient's saliva from entering the caregiver's mouth are preferable.

### **Body removal**

The primary precaution for personnel not authorized to handle evidence at a crime or accident scene is to follow regulations and not touch anything. For detectives, evidence technicians, and others who may have to touch or remove a body, the standard infection control procedures should be followed: that is, wear gloves, cover all cuts and abrasions to create a "self-help barrier" against infection, and carefully wash all exposed areas after any contact with blood or body fluids. These procedures should be followed in all cases, regardless of whether the subject is known or suspected to be infected with HIV.

### **Conclusion**

As documented in this and other bulletins in this series, the risk of becoming infected with HIV in the course of normal law enforcement duties is extremely low. However, systematic and consistent use of the precautions summarized in this bulletin will minimize such risks. Criminal justice personnel should be thoroughly trained in these procedures so that they become second nature in all cases. Departments should ensure that these procedures are observed.

### **Notes**

1. For additional information on training and education, see Theodore M. Hammett, *AIDS and the Law Enforcement Officer: Concerns and Policy Responses*