

AIDS - TRENDS AND IMPLICATIONS

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Since its introduction 10 years ago, the Human Immunodeficiency Virus has made a tremendous impact on all of humanity. The physician and the medical personnel have an obvious concern over the possibility of acquisition from day to day patient management. There is also reciprocal concern from the public regarding the delivery of care from infected or potentially infected health care workers. These issues have induced a tremendous amount of fear and anxiety to all those involved. Fortunately, it has also stimulated research in this area as well as a guiding set of rules and regulations to help sort out some of the mass confusion that currently exists in the health care industry. These guidelines, put forth by the Center for Disease Control (CDC) are referred to as the Universal Precautions for Patient Care and Management. Although these guidelines have not answered all the questions and concerns regarding these critical issues, they have alleviated a great deal of fear and paranoia surrounding the disease and its transmission.

FACTS AND FIGURES

A proper perspective of the AIDS scare begins with an understanding of the prevalence and realities of the disease. From its detection in 1981 through October 1991, there have been approximately 1,000,000 HIV infected individuals diagnosed in the United States. Of these one million infected people, 199,406 have progressed to a full-blown AIDS syndrome. These figures are telling us that there are approximately 800,000 positive carriers of the virus who have not progressed to the severe clinical symptoms associated with AIDS. Of the 199,406 patients, 128,289 have died. Although certain high risk groups comprise the majority of the one million HIV pos-

itive people, individuals from all walks of life have been infected. (Table 1)

TABLE 1

The Most Commonly Infected Groups
(Descending Order of Prevalence)

1. homosexual/bisexual men
 2. I.V. drug abusers
 3. hemophiliacs
 4. heterosexual partners of HIV infected individuals
 5. newborn infants
 6. others - (no identified risk factors, health care workers)
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There have been 22 reported cases of health care workers who have seroconverted to a HIV positive state following an accidental exposure. These 22 people were studied extensively and were found to have no other identifiable risk factors. There have been no deaths reported to the CDC from this group. The breakdown of this group is: 10 nurses, 7 lab technicians, 3 physicians, and 2 others. Although these numbers are encouragingly low, they do document the reality of possible transmission.

The AIDS virus has been isolated in essentially all body fluids including blood, semen, vaginal secretions, breast milk, saliva, tears, cerebrospinal fluid, amniotic fluid, synovial fluid, and urine. However, only blood, vaginal secretions, semen, and breast milk have been linked to a documented transmission. In the field of podiatry, concern is primarily limited to the blood-borne forms of transmission.

The risk of acquiring HIV following accidental exposure is extremely low, but it has occurred. To put the real risks and realities into their proper perspective three excellent studies can be evaluated. In a recent article by Maffulli et al., approximately 25% of 100 foot surgeries resulted in glove perforations. Only 4% of the above punctures were identified during the surgery, while the vast majority went undetected. Henderson et al. in 1986 and Marcus et al. in 1988, published four and five year prospective studies and documented the risk associated with accidental exposure from AIDS-infected blood. Although a large number of accidental exposures were identified in each study, the subsequent conversion to HIV positive blood was extremely low. While Maffulli's study demonstrates the frequency with which accidental contact occurs in routine foot surgery, the latter two studies confirm the very low probability of acquiring AIDS in this fashion. Marcus sites an approximate 0.42% chance of converting to HIV positive following contamination by AIDS infected blood. This figure is slightly higher than the CDC's estimate of 0.3%.

PREVENTION OF TRANSMISSION

With the above facts and figures in mind, it is obvious that the health care professional should take every step possible to minimize accidental exposures in the work place. This is where the Universal Precautions have become so important. By treating all patients and all body fluids as potential contaminants, the difficult task of guessing which patient is or is not high risk is eliminated. The Basic Universal Precautions should be used for all patients. (Table 2) It is essential that these principles be implemented in both the office setting and the operating arena.

The five principles represent the standard of care that should be used on all patients by all health care workers. There have been some additional guidelines and precautions forwarded by the CDC that should be adopted by those workers engaging in exposure prone invasive procedures. Though there is little debate regarding the definition of what is invasive, there is some confusion as to what procedures should be considered exposure prone. There has been no official list forwarded by the CDC identifying specific

TABLE 2

Basic Universal Precautions

1. Use appropriate barrier precautions - gloves, masks, protective eye wear, and gowns or aprons if appropriate.
 2. Hands should be washed immediately and thoroughly if contaminated with body fluids. Hands should be washed after removing gloves in all cases.
 3. Prevent accidental injuries from sharp objects such as needles, or scalpels. Do not manipulate needles or other sharp objects by hand. Do not recap needles. After use, put all sharps in approved puncture-proof containers.
 4. Use mouthpieces, ventilation bags, or other resuscitation devices for emergency CPR. Avoid mouth-to-mouth if at all possible.
 5. Workers with open lesions or active, weeping dermatitis should refrain from all direct patient care until the condition resolves.
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exposure prone procedures and specialties. However, when considering the amount of sharp instrumentation used on a daily basis (office and surgery) in our profession, podiatrists should be included in this group. These additional guidelines are for the benefit of both the health care worker and the patient.

Aside from the CDC's recommendations, several other professional groups and organizations have presented specialty-specific guidelines that more directly address issues in each field. The American Academy of Orthopedic Surgeons has set forth a set of guidelines that can be modified and used in the podiatric profession.

In spite of the tremendous progress being made by the above groups in setting rules and regulations regarding health care delivery, many unresolved questions remain concerning the AIDS epidemic. What is the obligation and liability of the HIV-infected health care worker to the patient? Should patients be told of the physician's condition? Should health care workers be required to be tested for AIDS? Should all patients be tested for HIV prior to any invasive treatment? What are the legal issues concerning treatment or refusal of treatment of HIV-positive patients? All of these questions are legitimate concerns among

physicians and health care workers that have yet to be completely worked out.

The above questions epitomize the state of concern and confusion of the health care industry regarding the threat of AIDS. However, by following the rules and guidelines being set forth by the various recognized authorities much of the fear and anxiety can be minimized and a more confident approach taken while delivering medical care.

RISK MANAGEMENT CONCERNS

POTENTIAL AIDS-RELATED LITIGATION

1. Liability related to medical malpractice
 - a. Failure to diagnose and misdiagnoses
 - b. Failure to inform a patient of the diagnosis
 - c. Failure to provide counseling and treatment when patients test positive for HIV antibodies
 - d. Failure to report an AIDS diagnosis to health authorities
 - e. Failure to inform at-risk sexual partners
2. Liability related to transmission whether through contaminated blood and blood products or childbirth
3. Liability related to confidentiality
 - a. Has been diagnosed as having AIDS
 - b. Has been or is being treated for AIDS
 - c. Has been determined to be infected with HIV
 - d. Has submitted to an HIV test
 - e. Has had a positive or negative result from an HIV test
 - f. Has sought counseling regarding AIDS
 - g. Has been determined to be a person at risk at being infected with AIDS
4. Liability related to physicians failure to treat an AIDS patient
5. Liability related to providing a safe workplace