

National Institute on Alcohol Abuse and Alcoholism



Acquired
Immune
Deficiency
Syndrome
and
Chemical
Dependency

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DEPARTMENT OF HEALTH AND HUMAN SERVICES
Substance Abuse and Mental Health Administration

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ACQUIRED IMMUNE DEFICIENCY SYNDROME AND CHEMICAL DEPENDENCY

*Report of a Symposium Sponsored by
the American Medical Society on Alcoholism and Other Drug Dependencies, Inc.
and the National Council on Alcoholism*

*San Francisco
April 1986*

INTRODUCTION

In April 1986 the American Medical Society on Alcoholism and Other Drug Dependencies, Inc. and the National Council on Alcoholism held their national meetings jointly in San Francisco. One of the prominent events of the combined AMSAOD/NCA national meeting was an all-day symposium held on Monday, April 21 on the role of alcohol and other drugs in the acquired immune deficiency syndrome (AIDS). The symposium, featuring presentations by a number of experts in the field, was said to be the first national symposium on AIDS and chemical dependency ever held.

The symposium consisted of three sessions: a morning session titled "AIDS, Alcohol, and Addictions: A Family Affair," featuring presentations on the nature of AIDS, the link between substance abuse and AIDS, and barriers to the treatment of substance abuse in populations at risk; a noon luncheon meeting for discussion of AIDS and substance abuse issues; and an afternoon session titled "AIDS and Alcoholism," featuring presentations and discussions on the effects of alcohol on the immune system, educational campaigns to curb the spread of AIDS, and clinical, psychosocial and psychiatric issues in dealing with AIDS patients and the AIDS epidemic.

The first session of the symposium was chaired by Dr. Larry Siegel, chairman of the AIDS and Chemical Dependency Committee of AMSAOD. In his opening remarks, Dr. Siegel stressed the seriousness of the AIDS problem, saying that perhaps as many as 2 million Americans have already been infected with HIV, the virus that is believed to cause AIDS. It has been estimated that by the early 1990s perhaps half a million people will have developed the full syndrome, and half of these new cases may occur between 1990 and 1992. This poses very serious problems for the health care system of the United States, Dr. Siegel said, because this large number of new AIDS cases is well in excess of the number of intensive care beds available in this country. With the cost of treating an AIDS

patient now estimated at over \$100,000, the economic impact will be tremendous. The purpose of the conference was to examine the potential for modulating this epidemic by understanding how addictive substances contribute to it.

This report summarizes the papers that were presented at this symposium and the discussions that they stimulated.

Acquired Immune Deficiency Syndrome and Chemical Dependency

*Report of Symposium Sponsored by
The American Medical Society on
Alcoholism and Other Drug Dependencies, Inc.
and The National Council on Alcoholism*

*Joint AMSAODD/NCA National Meeting
San Francisco, California
April 1986*

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Joint Meeting of the American Society on Alcoholism and
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THE NATURE OF AIDS

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EPIDEMIOLOGY

AIDS is a very significant problem in San Francisco as in most major U.S. cities. The city is second only to New York in the total number of cases reported. Since 1981, New York City has accounted for roughly one-third of all cases of AIDS and San Francisco has accounted for 11 percent. In terms of cases per million population, however, the rates in both cities are virtually identical. In San Francisco, 98 percent of the AIDS cases are homosexual men, whereas in New York, the disease is found in a broader range of risk groups including intravenous drug abusers. If one considers only the incidence of AIDS in never-married men between the ages of 20 and 40, San Francisco has by far the highest incidence of this disease anywhere in the western hemisphere.

At any time, the case fatality rate from AIDS is 50 percent; that is, half of all people who have received the diagnosis are already dead. This is an artificially low number, however, because the case fatality rate among patients diagnosed before 1982 and 1983 is much higher. It is believed at this time that AIDS is a disease that is 100 percent fatal. The reason for the 50 percent case fatality rate is that at any given time over half of the entire number of cases have been diagnosed within the previous 6 months.

A new peak of AIDS cases was reached in San Francisco in October 1984, when 59 new cases were diagnosed—an average of two new cases a day. The rate has been somewhat on a plateau since that time, with the monthly average ranging between 60 and 70 new cases, except for February 1986 when 101 new cases were diagnosed. This high rate of new AIDS cases led San Francisco General Hospital to organize its outpatient AIDS clinic in January 1983. The clinic receives 1,500 visits from patients each month.

The years of potential life lost because of AIDS among single men 25-44 years of age in San Francisco exceeds the combined loss of potential life caused by accidents, homicides, suicides, and cancer, and AIDS has replaced heart disease as the single largest killer in the city. Since January 1985 the city has had an average of about one death a day from AIDS.

Who is at Risk?

After it was revealed in 1985 that movie actor Rock Hudson was dying of AIDS, the national media again focused some attention on the disease. A

headline in one popular magazine warned that now no one is safe from AIDS. Is this true? Is no one safe?

It is important to realize that since the beginning of the epidemic, about three-fourths of AIDS patients have been homosexual men. The second group noted to be at risk besides homosexual males were intravenous drug users. This population continues to account for about 17 percent of all AIDS cases diagnosed. Interestingly, lesbians are not at risk of developing AIDS, nor do they develop other sexually transmitted diseases at the same rate as their male counterparts. However, among intravenous drug users women are found equal to men in susceptibility to AIDS.

The third group that was noted to be at risk of AIDS were Haitians, though they are no longer officially classed as a separate risk group. In 1982 it appeared that Haitian immigrants residing in Miami and the Bronx area of New York were developing this disease at a rate disproportionate to their numbers in the population, and it was later discovered that there is an AIDS epidemic in Haiti. Although the Dominican Republic shares the island of Hispaniola with Haiti, it has had only a few sporadic cases of AIDS in port cities. After the Haitian government protested that being Haitian was being regarded as a risk factor for AIDS, Haitians were dropped as a separate risk category and were included in the category of "other" in official documents. This change makes sense, because simply being Haitian is not what puts one at risk of the disease. It is as illogical as saying that being from San Francisco is a risk factor for developing AIDS.

The fourth group found to be at risk of AIDS were hemophiliacs. Hemophiliacs generally require injections of Factor 8 to prevent hemorrhage. Factor 8 is extracted from human blood, and since thousands of units of pooled donated blood must be processed to supply doses of the antihemorrhagic agent to a hemophiliac, there is a greater probability that one or more units may come from infected donors. The discovery of AIDS in hemophiliacs was what first brought awareness that the virus could be transmitted through the blood supply. Since the beginning of the AIDS epidemic about 3 percent of cases have been found to be caused by transfusion of contaminated blood products.

Finally, about 1 percent of AIDS cases have been traced to heterosexual contacts. It is not surprising that this disease can be transmitted by either homosexual or heterosexual contact. The virus knows not whether it infects a man or a woman or a homosexual or heterosexual. In fact, transmission of AIDS is frequent among heterosexual men and women in Africa.

The AIDS problem in Africa first became evident around 1982 and 1983, when physicians in Belgium began to see patients arriving from Zaire and Burundi ¹ who had signs and symptoms virtually identical to what was being called AIDS in the United States. An investigation in the capital of Zaire by representatives of the World Health Organization, the Centers for Disease Control, and other health agencies found that about 40 percent of the adult patients in the main hospital had diseases that were consistent with AIDS.

The epidemiology of AIDS in Africa is quite different from that in the United States. In the United States 92 percent of AIDS patients are males and 8 percent are females. In Africa AIDS affects males and females in practically equal numbers. Thus AIDS is clearly a disease that can be transmitted by heterosexual activity, from man to woman as well as from woman to man.

It appears that many people are concluding from the situation in Africa that heterosexual transmission of AIDS could cause massive spread of the disease in the United States. It is important to remember that the epidemiology of viral infections is not necessarily the same in industrialized countries as it is in Third World countries. Hepatitis B illustrates the point. This infection is frequent in certain risk groups in the United States, that is, homosexual men, intravenous drug users, and multiply transfused people, but it is not widespread in the general heterosexual population. In Africa and parts of Asia, however, it is rampant, in some places affecting up to 20 percent of the population, just like the AIDS virus in Africa. So, although large-scale heterosexual spreading of AIDS has occurred in Africa, it is not necessarily what we can expect to happen in the United States.

Pathology of AIDS

The Centers for Disease Control uses a very broad definition of AIDS for surveillance purposes, that is, the presence of a reliably diagnosed disease at least moderately indicative of underlying cellular immunodeficiency in persons who do not have known immunodeficiency states from birth, are not on any immunosuppressive therapy, and do not have a diagnosis of any disease known to be associated with immunosuppression (e.g., Hodgkins disease, non-Hodgkins lymphomas). AIDS is more precisely defined as an infection of helper T lymphocytes by a virus called human T lym-

¹ People of means in these countries, which were once part of the Belgian Congo, still go to Belgium for medical care.

photrophic virus type III, or HTLV-III, which has recently been renamed human immunodeficiency virus (HIV). This virus reacts to molecular structures on the surface of a lymphocyte that mark it as a member of helper T cell family, and the result is viral penetration and infection of the cell.

The genetic material of HIV is RNA, whereas human genes are made of DNA. Once the virus is inside the helper T lymphocyte, however, it creates DNA copies of its RNA genes by means of the enzyme reverse transcriptase. This DNA, bearing instructions for making new HIV particles, then becomes incorporated into the genetic material of the host cell and remains there for the life of the cell.

The death and depletion of helper T lymphocytes as a result of AIDS infection has grave consequences because of the central role this white blood cell plays in immunity. A major consequence is high susceptibility to opportunistic infections, often by organisms to which most of us have been exposed to at some time during our lives and to which we have developed immunity. When the immune system has been destroyed by the AIDS virus, this immunity is lost and the organisms have the opportunity to cause disease. Among the opportunistic infections associated with AIDS are amoebic and viral infections. A number of malignant diseases are also found, most commonly Kaposi's sarcoma and lymphomas of the brain. It is interesting that these cancers have been seen before in another group of people with suppressed immunity; they are also the two most frequent cancers seen in kidney transplant patients who are on immune suppressing medication to prevent them from rejecting their transplanted kidney.

AIDS, the deadly disease that now afflicts 18,000 or 19,000 Americans ², is really only the most conspicuous aspect of HIV infection. The number of people who have been infected by the virus but have not developed the disease may number as high as 2 million. This estimate is based on studies of antibody prevalence in various populations. The AIDS antibody test cannot predict that someone will get AIDS, it can only indicate that an individual has been infected with the virus at some time in the past and is more likely able to transmit the virus than someone whose test is negative.

Between those who have the disease and those who only show antibodies to the virus lies a large group of patients who have some signs of AIDS but not the full syndrome. This partial manifestation

² In October 1986 the estimated number of AIDS victims in the United States had increased to 26,000.

of AIDS, which may be evident from clinical symptoms or laboratory tests, is referred to as AIDS-related complex or AIDS-related condition (ARC). The most common sign of ARC is persistent generalized lymphadenopathy or lymph node enlargement. Another common finding is thrombocytopenia, low blood platelet count.

The questions of whether healthy seropositive individuals develop ARC and whether patients with ARC go on to develop AIDS are under investigation in many studies across the country. At this time it is believed that approximately 10 to 30 percent of people with ARC develop AIDS. A percentage of healthy seropositive individuals have been seen to progress to ARC and then to AIDS. Various studies have demonstrated that about half of San Francisco's homosexual male population is seropositive for the AIDS virus, but much remains to be learned about the natural history of AIDS infection, particularly the percentage of infected but healthy individuals who will go on to develop the disease.

Kaposi's Sarcoma

Interestingly, Kaposi's sarcoma in the setting of AIDS is common among homosexuals but not among those infected by intravenous drug needle sharing or by transfusions. Kaposi's sarcoma is part of the initial presentation in about one-third of homosexual AIDS patients, compared to 5 to 10 percent in the other risk categories.

Kaposi's sarcoma is not a new disease. It was first described over a century ago by a Hungarian dermatologist, but heretofore it has been diagnosed primarily in elderly men of Italian and Jewish extraction. These patients usually develop purple spots on their lower extremities during their 50s and 60s. Although these same lesions are found throughout the body at autopsy, the disease in these groups is not commonly aggressive, and patients can usually survive up to 20 years with only minor treatment or even without any treatment.

The African form of this malignancy is much more aggressive. In younger African males, Kaposi's sarcoma affects the gastrointestinal tract and other internal organs, as well as abdominal lymph nodes, at a very early stage. Without treatment these patients die in approximately a year. Even with treatment, life can be prolonged for only about 3 years. Gastrointestinal bleeding and intussusception³ are common complications of the disease in Africans.

³ Intussusception is a serious condition in which one section of intestine, through a telescope-like action, slips into an adjacent section.

Kaposi's sarcoma also can occur in kidney transplant patients who must take immunosuppressive drugs to prevent tissue rejection. It has been reported, however, that discontinuation of immunosuppressant therapy caused the lesions to disappear in about 50 percent of such cases (along with rejection of the transplanted kidney).

This malignancy in AIDS patients has a different pattern than in the "classic" form of the disease found primarily among elderly men in certain ethnic groups. Patients with AIDS can have the lesions anywhere on the body, not just the lower extremities. There is also a peculiar tendency for the lesions to appear on the neck in a necklace-like pattern, as well as for a lesion to appear on the tip of the nose. Lesions can also appear on the roof of the mouth, in the perianal region, and on the mucosa of the colon. Unlike the situation with Africans with Kaposi's sarcoma, AIDS patients do not have symptoms of gastrointestinal bleeding or intussusception.

AIDS patients usually do not experience symptoms from Kaposi's sarcoma, although the development of the lesions is psychologically distressing. The single most important cause of morbidity and mortality in AIDS patients is not Kaposi's sarcoma but opportunistic infections, especially pneumonia. There is, however, a subset of AIDS patients who do not develop such infections but die from a severe wasting disease, experiencing extreme weight loss, high fevers, night sweats, and severe diarrhea. Patients in whom the disease takes this course usually become demented because the AIDS virus also attacks the central nervous system. Computer-assisted tomography (CAT scanning) has also revealed severe brain atrophy even in the absence of full-blown AIDS, and this is believed to be due to infection of brain cells by the virus.

The Role of Drugs and Alcohol in Kaposi's Sarcoma

Numerous studies have examined the question of why homosexuals are more at risk of developing Kaposi's sarcoma than other populations. Studies in San Francisco and New York indicate an association between this high susceptibility and the use of nitrite inhalants, which is very common among homosexuals in those cities. These drugs are themselves damaging to the immune system, part of whose function is surveillance and destruction of incipient tumors.

Drug and alcohol abuse are widespread in the gay male community. An early study of homosexual AIDS patients in San Francisco, for example, found that more smoked marijuana than smoked tobacco. An overwhelming majority, 95 percent, used alcohol. Use of

cocaine, LSD, and quaaludes was also high. Two-thirds of the patients had a history of amphetamine use. Three-fourths of them had used nitrite inhalants an average of 7 times a month for 5 years. In fact, only 12 of 271 patients in our series claimed never to have used drugs or alcohol.

There is evidence that the AIDS virus infects an immune system that has been activated, that is, challenged in some way, and that these chemical agents, particularly the nitrite inhalants, can cause this activation. Thus it is imperative that those who have been infected with the AIDS virus withdraw from the use of any substances that can cause further damage and further loss of immune function.

The Search for a Remedy

Since 1982, investigators have tried a number of biologic response modifiers in an effort to bring back the immune system in AIDS patients and stop the infection. No agents have proved successful so far.

Many people hope that a vaccine can be developed to protect people who are not yet infected with the virus. There are a number of potential limitations to an AIDS vaccine, however, not the least of which are product liability and litigation. Many pharmaceutical companies are not interested in developing such a vaccine, because of the many lawsuits that have been made over adverse vaccine reactions. There is also a potential problem in testing an AIDS vaccine: Who wants to be the first in line to get the AIDS vaccine to see if it is safe and can prevent the disease?

Enough is known about AIDS at this point to suggest an alternative approach to prevention. The routes of AIDS transmission are known. It can be transmitted through intimate sexual contact and exchange of genital secretions, and it can be transmitted by various mechanisms through contaminated blood. With this knowledge we are armed to prevent the spread of this disease.

AIDS is a preventable disease. It has been demonstrated, for example, that condoms prevent the transfer of the virus, and there is evidence that the population at risk in San Francisco is acting on this knowledge. During the first quarter of 1980 there were 1,500 cases of rectal gonorrhea in San Francisco, but that number fell to 100 cases in the last quarter of 1985. A mobile clinic that had been used to track down such cases was no longer needed and was taken out of service.

Dealing with Fear

At the beginning of the AIDS epidemic, staff at San Francisco General Hospital shared the general public's fear of contagion from this disease. Five years later, however, it is clear that health care providers for AIDS patients are not at risk of contagion. There have been numerous studies of people who have had AIDS patients' secretions splashed into their eyes or mouths or have even accidentally stuck themselves with contaminated needles. They have not only not developed AIDS, they have not even become seropositive. Ordinary precautions for the handling of infectious patients, especially washing of hands, are effective in preventing contagion from AIDS patients.

Back in the 14th century, when the bubonic plague was ravaging Europe, Italian physicians wore an elaborate garb to protect themselves from infection. The outfit was made entirely of leather, including the hood over the head and the gown that extended all the way to the ground. A wide-brimmed cap helped the physicians keep their distance from the patients, and the patients were never touched by hand, only with a pointer. The leather hood over the head had a long leather beak that protruded from the front. The beak, stuffed with herbs to "purify" the air, was also meant to keep distance between the physician and the patient.

The protective garb worked. Physicians who wore it did not get the plague, whereas monks who tended the sick without benefit of such armor did become infected. But this is because the plague is transmitted by fleas. In contrast, AIDS is transmitted through intimate sexual contact, exchange of genital secretions, and by transfusion of contaminated blood. Therefore, the donning of such barriers, whether on our bodies or in our psyches, is not necessary and serves only to increase the alienation and social isolation that AIDS patients already feel.

CHEMICAL DEPENDENCY AND AIDS

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When the AIDS epidemic began, its link to chemical dependency was very unclear, and professionals in the chemical dependency field were not significantly involved with the problem either clinically or in the area of social policy. These days it is impossible to practice medicine in the city of San Francisco, particularly in the area of chemical dependency, which is a major problem among our patients, without being deeply involved in AIDS. It has become very important for us at the Haight-Ashbury Free Medical Clinic to educate ourselves about AIDS, because 20 percent of the people who use our clinic are gay, and because of the growing evidence of a link between chemical dependency and AIDS.

It is important for anyone who works in the chemical dependency field to learn about AIDS, not just those who work in clinics like ours. But alcoholism and drug programs in suburban areas or in cities outside places like San Francisco or New York have done virtually nothing to educate themselves about AIDS. They assume that this is a problem for programs in the big cities, not for them, especially since they deal more with alcoholism. Then, when an AIDS patient appears at a suburban inpatient unit, there is panic among the staff and administration. I believe that more and more of these programs are going to be hit with the AIDS problem in the very near future and that education and training on AIDS should be mandatory for everyone in the chemical dependency field.

At the beginning of the AIDS epidemic, consideration of a possible link between chemical dependency and AIDS centered on the inhalant drug butylnitrite. For a time, this drug was suspected as a possible causative factor for AIDS because its use was prevalent in the gay bath houses, which were sites of frequent multiple anonymous sexual contacts. However, on the basis of the evidence and our own clinical experience, we believe that butylnitrite is a correlated factor, not a causative one.

At a recent AIDS conference held at the University of California, San Francisco, it was reported that in New York over 50 percent of the intravenous drug abusers tested positive for the AIDS virus antibodies. At the Haight-Ashbury Clinic, however, only about 15 percent of the I.V. drug abusers are testing positive, which suggests that the epidemic is moving from the west coast to the east coast.

In some areas of San Francisco, homosexuals comprise 20 to 99 percent of the population, and they comprise a substantial proportion of the

patients served by the Haight-Ashbury Clinic. The fear of AIDS has dramatically modified sexual behavior in this population, and this change is not only reflected in the decrease in rectal gonorrhea that was mentioned by Dr. Abrams, but in most risk factors related to AIDS. Unfortunately, however, behavior associated with intravenous drug use has not changed much, and there are also sexual lifestyles that revolve around intravenous administration of drugs, particularly amphetamines and cocaine. These drugs are used as aphrodisiacs in group sex situations involving multiple anonymous sexual contacts. People involved in that lifestyle are at the highest risk of contracting the AIDS virus.

Our interviews with members of the gay population indicate that alcohol and drug abuse are an important part of that lifestyle. On the other hand, one of the most frequent complaints we are hearing from our gay patients lately is about their social lives revolving around bars and gay bath houses, their inability to form stable relationships, and their fear of developing a chemical dependency problem. Thus, in what I would call the nonaddicted, less compulsive segments of the gay population in San Francisco, there appears to be a new emphasis on long-term relationships and healthier lifestyles, and a trend to development of social relationships outside the gay bars and the bath houses. I think this development has had a major epidemiological impact among gays in San Francisco, but relatively little impact on the I.V. drug abusing population.

AIDS and Social Policy

I think we need to examine some of the social policy measures that are being proposed for the I.V. drug users in response to the AIDS epidemic. We in the chemical dependency field recognize that recovery is possible for a wide variety of addictive diseases, including opiate and stimulant addiction, and are attempting to push the treatment system more toward abstinence and recovery-oriented treatment. Yet, because of the AIDS death rate and the great fear being engendered by that epidemic, social policy measures are being advanced that go in the opposite direction.

For example, an increase in public health budgets is being advocated to provide more methadone maintenance slots. Well, methadone maintenance is a viable treatment modality for heroin addiction, but at the Haight-Ashbury Clinic we try to place more emphasis on recovery-oriented treatment tracks, and we were able to convince the San Francisco Board of Supervisors to make a

greater commitment for drug-free treatment slots in the city budget. When the AIDS epidemic came along, however, not only did the Supervisors fail to appropriate more for drug-free treatment slots, they increased the budget for methadone maintenance slots.

Another course being advocated is to provide free clean needles to all addicts. So firmly entrenched has this idea become in some public health circles that to question it is almost to invite ridicule. Actually, clean needles for drug abuse are readily available in San Francisco; there has been a de facto legalization. As most of you know, the most common diversion of needles and syringes is the conversion of diabetic syringes and needles into drug delivery outfits. Yes, it is against the law, and the law used to be strictly enforced, but now a drug addict can go into any pharmacy in San Francisco and get needles and syringes with little problem. Thus the situation is already what it would be if free, clean needles were passed out to all the addicts.

Advocates of free needle distribution also fail to recognize that needle-sharing is part of the I.V. drug users pass the needle around. It is part of the ritual, and it is my belief that if you gave ten addicts ten needles, ten addicts would share one needle at a time. The drug culture has a peculiar attitude toward the hazards of addiction. For example, when we interviewed I.V. amphetamine abusers we asked them how they dealt with the risk of hepatitis—what they did if one of the group was known to have hepatitis, the reply was, "We put the yellow guy last." Thus I.V. drug users are aware of risks, and they have techniques, albeit ineffective ones, to try to eliminate them. Providing free, clean needles to I.V. drug abusers will not alter their unhealthy practices, and I have very strong reservations about it because it tends to endorse the most rapid and dangerous means of drug delivery. We do, however, aggressively educate the needle-using community about the dangers of AIDS, proper techniques to clean outfits, and appropriate treatment resources.

I would also like to emphasize the cofactor issue, not just in terms of pharmacology but also in terms of social cultural variables, because in our interviews we found that a number of individuals who did not want to participate in this sex-drug marathon would nevertheless use a variety of other drugs, including alcohol, PCP, quaaludes—partly for their disinhibiting effect and partly for sex enhancement. When the episode and the intoxication were over they would feel a great deal of pain, guilt, and humiliation. So I think the drugs not only relate to pharmacological and immunosuppressant issues, but

also to disinhibition and lifestyle issues. Our clinical studies indicate that reduction in the abuse of immunosuppressant drugs and change to a healthier social and sexual lifestyle can reduce the progression from seropositivity to ARC and AIDS.

In closing I want to emphasize the issue of phobia raised by Dr. Abrams. I attend the gay workshops to try to eliminate any vestige of homophobia in my consciousness, partly because of my own value system and partly because it is impossible to be homophobic and also work and live in the community we serve. But I can assure you that, despite all this, fear and terror still can come into consciousness. I have worked in this field for 20 years, yet just a short time ago, at a drug detoxification program, I found that a patient I was examining as a primary care physician had AIDS-related complex. I know about this condition, and I have been to numerous workshops, and I have worked for years on my attitudes. Yet I had a very basic fear reaction and almost did not examine that patient. The patient didn't know that; all he saw was an unusual pause before the physical examination started.

I think we in the chemical dependency field must be open about what those of us in the field in San Francisco all talk about privately—that there is a great deal of fear among us and among health care workers in general. Rather than ridicule that fear as irrational, we should set up informal support groups. I stress that if you are going to work in the AIDS and chemical dependency field, you must recognize that no matter how hard you work on it, you will carry some dysfunctional attitude and will have an irrational fear of death when a new epidemic hits your area. We need to acknowledge these fears, and we need to make mutual emotional support and attitudinal change as much an integral part of training as the transmission of factual information.

BARRIERS TO THE RECOGNITION OF LINKS BETWEEN DRUG AND ALCOHOL ABUSE AND AIDS

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There are significant barriers, among health professionals and the general public, to recognizing the role that drugs and alcohol may play in AIDS and the need to identify drug and alcohol problems in persons who have the active disease or are carrying the virus. Epidemiological data conclusively show the close interrelation between drug abuse, sexual activity, and transmission of infection. There are a variety of ways in which AIDS can be transmitted, and the combination of sexual and intravenous drug abuse modes of transmission creates a web of transmission that can include a pregnant woman passing the infection to her fetus.

High-risk sexual activity probably carries about a 10 percent risk of infection per exposure. And while it is relatively difficult to transmit the virus to health care workers through accidental needle sticks, we know that intravenous drug use with needle sharing has a high risk of transmission. The rate of intrauterine transmission from mother to fetus also appears to be very high, perhaps 50-60 percent or even higher.

Although there appears to have been dramatic reduction in the rate of transmission of the virus among homosexual and bisexual men, primarily as a result of educational programs, there is evidence that transmission is increasing among intravenous drug users. Nevertheless, there are still no major coordinated health education programs aimed at I.V. drug users.

Both of the previous speakers mentioned evidence concerning the effects of alcohol and drugs on the immune system, including the association between the use of amyl nitrite ("poppers") and the development of Kaposi's sarcoma. There is growing epidemiological evidence that the diagnosis of Kaposi's sarcoma, particularly in gay men, is associated with the use of poppers. Yet there is a tendency among health professionals to deny such links, and clinicians are hesitant about inquiring about the use of these

agents and providing appropriate counseling. To argue that the link between poppers and Kaposi's sarcoma is only associative and not proof of causation is reminiscent of the arguments used back in the 1950s and 1960s to dispute the link between smoking and lung cancer.

Kaposi's sarcoma in AIDS cases is clearly associated with the use of volatile nitrites. The recreational use of amyl nitrites has paralleled the growth curve of AIDS cases in the United States. As a result of education programs, the use of poppers by gay men has diminished recently, and, according to the Centers for Disease Control, the proportion of gay AIDS patients with Kaposi's sarcoma has also diminished. Furthermore, potent carcinogens are found in measurable quantities in the blood of volatile nitrite users. Finally, from a behavioral perspective, the frequent use of nitrite inhalants is clearly associated with high-risk sexual behaviors and seropositivity for HIV. In the multicenter AIDS cohort study I am involved with, the only drug behavior found associated with seropositivity and seroconversion at a level comparable to associations with sexual behavior is the use of volatile nitrites.

Institutional Barriers to Recognizing the Substance Abuse-AIDS Link

Why, in view of all this evidence, do alcohol and drug problems in AIDS patients or in individuals at risk of AIDS go unrecognized? And why are the diagnosis and treatment of AIDS problems difficult in our alcohol and drug treatment programs? It is well known that our for-profit health care systems are reluctant to treat the poor, the homeless, and uninsured patients. Although there are Federal and State supported health care programs designed to assist the medically indigent populations, even these programs have difficulty in handling drug and alcohol abuse in patients, sexual minorities, and the homeless. A very striking feature of AIDS is that many patients with the disease have all the attributes that make their treatment by our traditional health care systems exceedingly problematic. Adding to the problem is the fact that AIDS is still an invariably terminal illness and that health providers are probably not well prepared to deal with fatal illnesses, especially when they strike patients whose age and socioeconomic status are similar to their own. All of us are ill-prepared to deal with bizarre behavior in patients, especially when that behavior appears to have a negative impact on the health of our patients and is self-destructive or compulsive.

In part because of difficulties in dealing with these problems in the mainstream medical system, an entirely separate system of programs dealing with substance abuse has evolved in the United States. But that system also does not respond well when a large number of individuals present with a combination of medical, psychological, and substance abuse problems.

There are other factors contributing to the denial of substance abuse problems in AIDS patients. Just as we saw in the late 1970s, and even now in 1986, sexual practice histories are infrequently obtained in medical practice, and we also see enormous reluctance on the part of primary care providers to obtain drug or alcohol use histories. Similarly, despite the evidence presented here today for the interrelation between sexual and intravenous modes of AIDS virus transmission, it is still commonly assumed in our society and our health care systems that sexual intercourse is the primary transmission mode of the virus. Even when we do recognize and focus on substance abuse in our patients, we tend to concentrate only on intravenously administered drugs. Thus we ignore the potential of alcohol, other ingested drugs, and nitrite inhalants to contribute to the medical and psychological problems of our AIDS patients. There may well be an enormous underestimation of the amount of drugs and alcohol used by patients with AIDS or HIV infection because of these systematic factors.

There is also a problem that, for lack of a better term, I call reverse stigmatization. By that I mean that physicians and other health care providers may fear that inquiring about a patient's drug and alcohol use patterns will elicit a sense of rejection in the patient, leading to anger or even withdrawal from treatment. This fear of inquiring about drug and alcohol use is reminiscent of reasons that have been given in the past for the fact that physicians seldom inquire about the sexual practices of their patients. We cannot tell our colleagues enough times that complete profiles on sexual practices and drug and alcohol use, as part of overall psychosocial history, are necessary parts of any primary health care relationship, and that the use of such information in a confidential, nonjudgmental, and counseling manner by the health care provider is appreciated by the patient.

Another reason often given for health care providers ignoring the role of alcohol or drugs in AIDS patients is the attitude that since AIDS is a fatal disease there is no point in bothering about alcohol and drug use, because the patient is going to die anyway. This overlooks the fact that some, and possibly many, of the associated

medical and psychological problems an AIDS patient is suffering from may be remedied if a drug or alcohol abuse problem is recognized and treated.

Accumulating data, from the San Francisco AIDS Project as well as from the Multicenters AIDS Cohort Study that I am connected with, are clearly establishing an association between drug and alcohol abuse in a subpopulation of gay men and unsafe sexual practices known to transmit AIDS infection. This association becomes even more powerful the more proximal the period of reported drug use is to sexual behavior that is considered unsafe. The correlations between receptive anal intercourse, the number of different sexual partners, and the use of various psychoactive substances are extremely high.

Theoretical Models

There are a variety of theoretical explanations for these associations. For example, our clinical, epidemiological, and institutional experiences all point to a major association between intravenous drug use and the practice of prostitution. The socioeconomic links between these two types of behavior are obvious, but the combined barriers to any interventions aimed at substance abusing prostitutes are awesome. Bars, whether gay or straight, have become major centers for both sexual and drug connections in our urban culture, and we should not lose sight of the fact that the principal business of bars is still the sale of alcoholic beverages, no matter how much Perrier they sell.

The general disinhibiting effects of alcohol, marijuana, volatile nitrites, and cocaine on sexual and risk-taking behaviors should also be noted. Volatile nitrites are on this list because they are strongly linked to receptive anal intercourse. This is partly because of their well known ability to relax muscles, including the anal sphincter. The *disinhibition model* supposes that the individual needs the psychoactive drug effect in order to overcome anxiety and increase the ratio of pleasure and gratification to pain and anxiety. This model does not attempt to explain the cause or type of anxiety, nor is it specific for sexual as opposed to other types of intimate behavior.

Another model is the *aphrodisiac model*—that these drugs increase libido and enjoyment of sex. This model is not well suited for explaining the associations between alcohol and downer use and receptive anal intercourse. It applies better to the use of such substances as marijuana, cocaine, and volatile nitrites.

A third model, the *social context model*, looks at all these behaviors as learned social rituals embedded in a complex social milieu and strongly interrelated through a system of shared cues, exchanges, and social dependencies. We can easily see the usefulness of this model in helping to explain the uniform failure of attempts to modify specific sexual or drug use behavior, when those attempts ignore the social environment in which the behavior takes place.

The *personality model* attempts to explain the relationship between sexual and psychoactive substance use behaviors at an individual level. Like the social context model, the personality model focuses on the interrelatedness of sexual and drug use motivators but focuses on intrapsychic causes rather than social causes.

Some would argue that there really is no informative or causal relationship between psychoactive substance abuse and high-risk sexual behavior. A more useful approach to consider would be a *multifactorial model*. It should be apparent by now that I, and perhaps the other panelists, view both sexual and substance abuse behaviors as very complex human activities with a variety of psychological, physical, socioeconomic, and political motivators. Any single explanation would not suffice in our attempts to understand a complicated web of factors that appear to link substance abuse patterns and HIV transmission. Rather than seeing a multifactorial model as a barrier to the development of effective intervention strategies, I hope we will see it as a stimulus for the development of comprehensive programmatic approaches to the problems discussed here.

Dealing with Sexual Minorities

There is not enough time for me to discuss all the barriers that exist in recognizing and helping sexual minority patients in chemical dependence programs. We all know that chemical use is sometimes a response to unresolved sexual conflicts and fears, and that entry into treatment by a gay man or a lesbian can be part of the coming-out process, which has its own associated anxieties. But I also want to point out that many of our programs that use peer support models often lack appropriate role models for the family and peer support relationships of sexual minority patients. We went through this same sort of thing during the 1960s when we talked about developing sensitivity to racial and ethnic minorities. I think we have to pay attention to this in our work with homosexual clients, whether they are male or female. Subtle nuances in our choice of words in describing programs or inviting significant others to participate can contribute significantly to establishing a feeling of trust in our homosexual clients. I do not mean to imply that we should try

to be "hip" and use the latest version of our clients' subculture language if this is difficult or unnatural. Often the direct expression of our unfamiliarity with the client's cultural milieu, and the communication of our interest and willingness to learn from them, helps create a positive therapeutic alliance with sexual or other minority group members.

But the barriers do not end with the development of an appropriate alliance with the patient. There is one other barrier that must be kept in mind. In working with a homosexual client in a chemical dependency program our concern for the individual's health and safety, as well as the health and safety of his or her close friends or sexual partners, is likely to stimulate us to begin inquiring about sexual practices. We will probably be motivated to stress sexual behavior modification just as the patient is beginning to modify psychoactive drug use behavior. In some cases, a coordinated approach to dealing with both sets of behavior simultaneously can be effective. In other cases, however, we must be careful not to present clients with so many stressful tasks at one time that they decompensate or flee from therapy. Again, provision of social and self acceptance to homosexual drug dependency treatment clients, to supplant their prior involvement in the drug, alcohol, and sexual scene, will facilitate the behavior modifications that are desired by both the therapist and the patient.

We know that much of the motivation to make behavioral changes in response to the AIDS epidemic is fear of disease or contamination, but we also know that it is very difficult to change behavior that is gratifying, compulsive, and often learned. Although we know that fear is an effective motivator of short-term behavioral change, it cannot be the only motivation or even the primary one for long-term change. Furthermore, fear as a motivator has a great potential for producing negative behavioral and social changes.

Mental health providers and chemical dependency treatment specialists have an important role to play in determining the long-term efficacy and positive impact of behavioral changes in response to the AIDS epidemic. Our roles include research, educating our colleagues, providing sensitive and effective therapies, getting involved in community and professional task forces, and demonstrating our own courage and determination in the face of hysterical overreaction. Given the complexity and the magnitude of the barriers to positive changes, performing these roles while meeting our professional and social obligations will not be easy, but in view of the potential negative outcomes for ourselves, our professions, and society at large, we can ill afford not making the necessary efforts to succeed.

DISCUSSION SESSION

The morning session of the AIDS symposium was followed by a luncheon meeting that provided attendees an opportunity to ask questions of panelists and engage in free discussion of issues. The dominant topic of this session was the controversial issue of screening people for the AIDS virus antibody. The discussion was inspired by this question from a member of the audience:

It has been mentioned that AIDS can be treated epidemiologically as a sexually transmitted disease, and I understand that on that basis the military is moving toward routine screening for the HIV antibody as they do for syphilis and other such diseases. Can any of the panelists comment on the usefulness of such a program of AIDS testing in other settings?

Dr. Rob Roy MacGregor: The question of screening for the AIDS antibody is one we are all wrestling with, and I don't think there is any really good answer. For the first 3 or 4 years of the epidemic, the Centers for Disease Control strongly recommended against routine screening in high-risk groups, but in a recent advisory the CDC made a 180-degree turn and recommended such screening. That was disturbing to a lot of us in the field, because we have been advising against routine screening, and we continue to do so. Let me explain our thinking about that.

Many of us have been opposed to screening because we really don't know the implications of a positive test. In the absence of any solid knowledge of what positivity means, a positive test in a member of a high-risk group is a kind of noise information. The information might well affect the behavior of an individual, but we felt it was better to counsel everybody in high-risk groups and say to them, "You are all at risk, and you should modify your behavior to reduce the risk." That is preferable to saying, "Well, you've got the virus and therefore it's curtains for you; you are going to get AIDS and you are going to die." It is also preferable to saying, in the case of a negative test, "You don't have the virus," because the individual at risk could make that an excuse to continue with risky behavior.

There are all kinds of problems that can develop once people know they are antibody-positive, not only for the individual, but also for a spouse or lover, children, and co-workers. There is the possibility that the information will get out somehow. All this can create incredibly complex social and psychological problems, so many of us have counseled against routine

screening for the AIDS virus in people who are basically healthy. I think the best use of the test is as a confirmatory procedure when there is clinical suspicion that a patient might have AIDS or ARC. Then it can be a powerful tool.

The other side of the argument is that it makes epidemiological sense to find all the people who have become infected by an agent that has variable degrees of penetrance in terms of causing clinical disease. Knowing who is infected and who is not helps us understand the epidemic better. So we have this conflict between a general principle of epidemiology that mandates getting as much information as possible about an epidemic, on the one hand, and considerations of the social and emotional impact of routine screening, on the other.

At a recent conference in Philadelphia, held not long after the CDC changed its mind about routine screening in high-risk groups, the consensus of the participants was that they would continue to recommend against routine screening.

Dr. David Smith: Let me add something to that from the point of view of a clinician. We see a very large number of very high-risk patients at our clinic, people who are shooting amphetamine and cocaine in gay bath houses with multiple anonymous sex partners and abusing a variety of immunosuppressant drugs. Yet we do not do routine AIDS antibody testing with these patients. We do, however, test for the virus in our research program, because it is the only way to answer certain research questions.

There are risks with the test, and a major one is the possibility of a false positive result. An example is a patient of ours who was an intravenous cocaine abuser. After he entered our program, he did well for about 2 years, except for a 1½-day relapse that was precipitated by a conflict with his wife. Our group intervened and pulled him out of it, but then he got hepatitis. Then, almost by accident, he got into a line somewhere for an AIDS antibody test, and the test turned out positive. Well, the man was devastated. He filled out his will. His wife refused to have sex with him. He was depressed and anxious. That positive test nearly destroyed his life.

About that time, I read in a journal article that several conditions may produce a false positive for AIDS antibody. So it is possible that all the horror and misery this man was going through was based on a false positive test for the AIDS virus.

There are also serious legal liability issues surrounding the AIDS antibody test. In this morning's *San Francisco Chronicle*, for example, there is a story about a lawsuit that's been filed against the city's major blood bank. Somebody developed AIDS and died from it after getting transfused. The family is suing the blood bank because the CDC earlier had warned this blood bank that their blood supply might be contaminated by donors with hepatitis, which at the time was being correlated with AIDS. Well, what happens if you are a physician, find out that your patient is AIDS antibody positive, and that he has donated blood? Under the law it is possible that you must warn all potential victims. But reporting it, warning the potential victims, opens up the potential for violation of your patient's confidence, and that also is against the law.

At a recent conference on occupational health that I attended, one of the speakers was a lawyer who spoke about a California law that requires the State Department of Motor Vehicles to be notified of any lapse of consciousness as a result of consuming alcohol. Well, every alcoholic I have ever known has had a lapse of consciousness, so it would appear that we are required to report every one of our patients to the DMV or risk legal liability. We posed this question to the speaker: What happens if you warn potential victims about your patient and thereby violate confidentiality laws? All the lawyer could say was that whatever one did in that situation, it would be a violation of a law.

So, there is pressure on us to violate the confidentiality of our clients and patients, but if we violate that confidentiality and harm the patient we can be sued. Yet we can also be sued if we don't violate that confidentiality, if somebody is harmed by one of our patients either on the freeway or by receiving a transfusion of his blood. Our position is that the core of chemical dependency treatment is confidentiality and anonymity, and we do not violate that no matter what the law says. I am aware, however, that there are chemical dependency programs that do report to the health department the names of individuals who test positive for AIDS antibody.

Member of the Audience: I agree with a lot of what you said, but I also think you are raising some straw men. I don't know what setting your patient had his AIDS test in, but I think that anybody who has a positive test would have followup testing, or at least a repeat test, and would get appropriate counseling. That sounds like a scare story. To me it means the test setting was not appropriate.

Dr. Larry Siegel: What I thought that story illustrated was the need to have testing done in a confidential setting, with informed consent beforehand, and counseling afterward. CDC publications calling for routine screening also call for confidentiality, informed consent, and counseling, but the truth is that what is supposed to happen doesn't always happen—people are being given the test without any of these safeguards.

We aren't just talking about people in whom the tests have caused some psychological distress, we are talking about lost jobs, suicide attempts, and actual suicides over positive test results, because the test has been done in a basically unsupervised way, without support, without counseling. The first question I would ask anyone who wants to test in such a setting is, "What are you going to do with that information when you get it? How are you going to deal with it? How is the patient going to deal with it?" I think many people involved in testing have not thought any of that out.

In the treatment center where I practice, we do not screen routinely. If somebody wants the test, they can have it, but we make sure they are aware of what it means. We don't withhold it, but we don't push it either. And we make very, very sure that the people involved in administering the test understand the implications. We also use a consent form, and it is very forthright. It says, among other things, that if you take this test, be prepared to be uninsurable and unemployable. Our staff psychiatrist says that anyone who signs that consent form is certifiable.

Nevertheless, I have had the experience of patients saying, "I don't care. I want to know, I want the test." And it has nothing to do with being gay or using I.V. drugs. Many of these people are not even in those risk groups, but they are scared, and they want the test. The problem is that there is a very substantial false positive rate of HIV testing in low-risk populations, including results from the Western Blot test. In a research setting, under carefully controlled conditions, that test is confirmatory. But it has not been licensed by any agency of the Federal Government, different laboratories use it in slightly different ways, and false positives have been reported. Considering the very serious and long-lasting adverse effects of a positive test for the AIDS virus, we need to be very careful in accepting test results from independent laboratories.

There was a report recently of a school teacher who went to the hospital for a gallbladder operation. Because his doctors thought

he might be at risk, they did an HIV test on him. It was positive and it went on his medical chart, where it was seen by one of the operating room nurses. The nurse called the school board and reported that there was a teacher in the hospital for a gallbladder operation who was HIV positive. The man was fired the next day. He is fighting his dismissal in the courts, but he is out of work, unemployable, uninsurable, and has no hospital benefits. He has lost everything.

So before we do this test, we need to think of the social and psychological implications and be absolutely prepared to deal with them. In medical school I was taught the Hippocratic injunction: do no harm. I was also taught that when I order a test, I damned well better have an idea of what I am going to do with the results. I think these are issues we need to think about.

I know I have a strong point of view on this issue. Obviously, others, including the CDC, feel just as strongly that the test ought to be administered routinely in high-risk populations. In my community the health department is pushing it like crazy. With certain well considered exceptions, I tell people not to take the test.

I think all of us have to think this matter through, with all of its implications, and use our judgment about what is best for the patient. I believe the only reason to do the test is when it will benefit the patient, not for some grand societal purpose that has not been shown to have any scientific validity.

Dr. David G. Ostrow: Part of the CDC's recommendation to use the test for screening in high-risk communities is their assumption, which doesn't seem to be based on any data, that a high-risk individual's knowledge of antibody test results could be a primary educational tool to motivate behavioral change. We have been using a quite different approach to that in high-risk groups, especially gay men, for a long time. We have been telling them, "Whether you are HIV-positive or not, the advice is the same: protect yourself and your partners; abandon unsafe sex practices such as anal intercourse without a condom, fisting, and rimming."

We were recommending that such practices be considered unsafe even before we knew about the epidemiology of HIV transmission. We went by analogy with hepatitis B, because the epidemiological patterns seemed similar, and for the most part it has turned out that we were correct. Anal intercourse in the gay population is the predominant path of hepatitis B transmission and perhaps the only one. For example, we studied more than 150 individuals who

were seronegative for HIV but seroconverted while under study. All of these men had some exposure to receptive anal intercourse without condoms. In contrast, in a group of 270 men who were seronegative and did not practice anal intercourse, but 70 percent of whom practiced oral intercourse, the seroconversion rate was zero. So there was very good evidence that anal intercourse is a predominant mode of hepatitis B transmission in gay men, and we reasoned that the same was probably true for AIDS. This does not mean, however, that oral intercourse is therefore safe, because we know that CMV and EBV viruses can be transmitted by that means, which would put oral intercourse in the category of "possibly safe."

The only thing that would be completely safe is avoiding any exchange of body fluids. I don't know if kissing is in that category. Earlier reports that the virus has been found in saliva have now been qualified; of individuals who have the virus in their blood, only about 1 or 2 percent also have it in their saliva, and the titer there is very low. So, unless it got directly into someone's bloodstream, saliva doesn't appear to be a major risk factor.

The important thing in trying to alter someone's sexual behavior is to avoid absolutes and present the information with all qualifications and work with them. As I said, I don't think it matters if the individual at risk tests positive or negative. What matters is avoiding further exposure of the individual or his sexual partners to AIDS or other immunosuppressant virus.

Even if there were a vaccine for AIDS, I would tell people the same thing. I remember a conference in Chicago in 1979, when we were elated because a hepatitis B vaccine had been developed and we would be able to do away with this major sexually transmitted disease. We spent a lot of time talking about this vaccine at that conference. King Holmes, the preeminent expert on sexually transmitted diseases, was the keynote speaker, and I remember what he said at the close of the conference after all the talk about the vaccine. He said that if nothing is done about the behavior that is transmitting hepatitis B virus, and if we just rely on the vaccine, there is going to be big trouble down the road. He argued that if hepatitis B virus can now be transmitted sexually, there must be many other viruses, known and unknown, that are also being transmitted the same way. And he predicted that in a couple of years or so there could even be a new disease that attacks the immune system. What we now call AIDS was actually predicted by Holmes in 1979.

Holmes said that if we rely on biological solutions and not behavioral solutions, then we are making a big mistake. I think the same applies in the alcohol and drug abuse field. If we rely on disulfiram, if we rely on giving people clean needles, and don't try to educate them and motivate them to change their behavior, then we are heading for trouble.

Dr. MacGregor: Finding the AIDS virus in saliva and tears added to the national hysteria about AIDS. People started fearing that if the virus is even in tears and saliva, it might be possible to get infected just by shaking hands with someone. But many studies have shown that it is very difficult to transmit the virus by any but a few well known and well demarcated methods. And that is what we tell people in our hospital.

We don't have a lot of AIDS cases in our hospital, maybe only three to five at any time. I remember the first AIDS patient we had. There were signs all over the door to his room, and the nurses were putting on gowns, gloves, boots, and caps whenever they approached him. We helped break that fear partly by telling them the evidence that it is not an easy disease to transmit, but I think the most important factor was their seeing us docs go up to AIDS patients, shake their hands, and examine them. The first time I did that the nurse thought I was absolutely crazy. "I'm never going to do that," she said. But when the next AIDS patient came in staff people weren't quite so scared, and as more came along they were even less so. People in our hospital are really not afraid of helping AIDS patients, and I think the poignancy, the pathos of the disease is so overwhelming that the helper instincts of all the people who work in the hospital overcome any residual anxiety. And I think the leading by example helps.

The data supporting the weak communicability of this disease is very strong. We in medicine like to be scientific about things, so we say, "there is no evidence," but laymen don't like to hear that, and they are likely to come back with, "Well, what is the evidence?" If you tell them there is no evidence that you can catch the disease by shaking hands with someone who has it, they are likely to think you must be hiding something—that it means there is evidence that something else happens.

We like to couch things in scientific terms and say, "there is no evidence," because we do not want to be in the position 5 years from now of reading about someone in Australia who *did* get infected by shaking hands with somebody with AIDS, perhaps

through a break in the skin. We don't want somebody to come back and tell us we were wrong. We in medicine never like to be wrong. So we say, "there is no evidence."

I think we have to stop saying "there is no evidence." I think we have to say there is plenty of evidence that AIDS is not spread through casual contact, because the epidemiological data are very strong. Just about a month ago there was a journal report of a prospective study in which over 100 families who had a member with HIV were followed. Apart from sexual contacts, no family members sleeping in the same bed, using the same toothbrush, using the same eating utensils—in short, sharing all the nonsexual intimacies of family life with them—has become seropositive. That is very powerful evidence that the virus does not spread even in families other than by sexual contact.

I think we need to be very positive about this and stop issuing cautious "there is no evidence" statements because they come out as equivocation, and I think that is a real mistake.

Dr. Siegel: I just want to make a comment concerning the question of risk groups for this disease. It is important to realize that the reason it appears that 73 percent are gay men and 17 percent are intravenous drug users is the way the Centers for Disease Control has collated the data. The form one fills out in reporting an AIDS case to the CDC has a list of risk groups to be checked. The data are then collated and transformed into big, beautiful slides.

There are problems with this. For example, the person who happens to be Haitian and homosexual goes in the homosexual group. Similarly, the individual who is homosexual and an I.V. drug user goes in the homosexual group, not the I.V. drug user group. Just the simple maneuver of changing the order of things changes the statistics, so that 30 percent of all the people with AIDS, not 17 percent, are in the I.V. drug user category.

Now that is a very important piece of information to be aware of, because it has to do with what has been called "lying with statistics." It isn't really lying, it has to do with how one chooses to look at things. There are many homosexual men who never have sexual activity that represents a significant risk related to this disease. Mutual masturbation, for example, is a common kind of sexual activity among homosexual men, and it is not a risk factor for AIDS. On the other hand, rectal intercourse without a condom, if one is the recipient, has a high degree of risk. So we not

only have to look at the way the statistics are brought together, but also at the kind of sexual behavior. Just because someone is gay does not mean that they are particularly at risk of AIDS.

We are out of time. We need to move on.

ALCOHOL AND THE IMMUNE SYSTEM

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In 1785, Dr. Benjamin Rush, a signer of the Declaration of Independence and, for a time, the Surgeon General of the United States, published an article titled, "An Enquiry Into the Effects of Ardent Spirits Upon the Human Body and Mind." His paper was prompted by an epidemic of alcoholism that was fueled by the easy availability of imported molasses for fermentation. Rush used a kind of moral barometer to differentiate between ardent and nonardent spirits. Beverages such as beer and wine were thought to be generally positive and helpful, but "ardent spirits"—what we call distilled spirits nowadays—were bad. Rush's paper listed consumption (i.e., tuberculosis), pneumonia, and yellow fever as complications of alcoholism.

In 1884, Robert Koch observed that patients who developed cholera were generally excessive drinkers, and he showed in an experimental system that intoxicated rats were more susceptible to cholera than nonintoxicated rats.

In 1923, a study at the Cook County hospital in Illinois showed that pneumonia mortality rates increased in proportion to the amount of alcohol consumed. The mortality was 22 percent in minimal users, 50 percent in heavy drinkers.

Unfortunately, all the earlier studies of alcohol and infection were retrospective and uncontrolled, making firm conclusions difficult. A recent report from the Addiction Research Foundation in Toronto, however, provides some population-based rates of pneumonia mortality in alcoholics compared with normal individuals. The ratio of observed to expected deaths for alcoholic men was 3.1 to 1; for alcoholic women the ratio was 7.1 to 1. These incidence figures were highly significant statistically.

In another women study, 900 consecutive admissions to the Yale-New Haven Hospital were prospectively evaluated and it was

found that 16 percent of alcoholics had bacterial pneumonia as their admitting diagnosis, compared to 6.5 percent of nonalcoholics. Other pulmonary infections to which alcoholics appear to be particularly susceptible are aspiration lung abscesses and klebsiella pneumonia. Also, when alcoholism causes cirrhosis of the liver, patients tend to develop spontaneous bacteremia, particularly from organisms of the gastrointestinal tract. Similarly, patients with cirrhosis are susceptible to bacterial peritonitis, 60 percent from enteric organisms and 40 percent from gram-positive organisms, especially pneumococci.

In summary, there is a wealth of clinical evidence suggesting that alcoholism predisposes to infection and increases its severity. The clear implication is that alcohol interferes with normal immune defense mechanisms. In the remainder of my review I will summarize the functional data supporting this conclusion, discussing each component of host defense. Polymorphonuclear leukocytes and the inflammatory reaction are important in defense against bacterial infection. Cell-mediated immunity is important for defense against viral and fungal infections and tuberculosis. The reticuloendothelial system, or RES, which includes components of the liver, spleen, and bone marrow, removes foreign particulate matter from the circulation and is important for defense against bacterial, fungal, and parasitic infections as well as tuberculosis. Finally, I will discuss the effects of alcohol on humoral immunity, which has two major components—the immunoglobulin system and the complement system.

Polymorphonuclear Leukocytes

Granulocytopenia, an abnormally low level of white blood cells called polymorphonuclear leukocytes (PMNs), or granulocytes, has been described as a complication of alcoholism in about 8 percent of hospitalized alcoholics, especially those who have an active infection. The reduction in granulocyte count is usually mild and corrects after several days of abstinence. Bone marrow examinations show a marked decrease in the number of mature granulocytes and vacuolization of myeloid precursors. There appears to be a direct toxic effect of alcohol on the marrow, and there is evidence indicating a decreased marrow reserve. Thus decreased PMN production appears to be the basis for the granulocytopenia seen in alcoholics admitted with infection.

Mobilization of PMNs to fight infection involves several steps: PMN production in the bone marrow, release of PMNs from the

bone marrow, their delivery to the site of inflammation, their adherence to cells lining the blood vessels as a preliminary to their penetration of the lining, their passage through the lining, their migration through the tissue to the area of inflammation, their movement toward the invading cells, and finally their phagocytosis and killing of the invaders. The effects of alcohol have been studied for each step of this process, and I will review the findings.

Effect of Alcohol on the Growth of PMNs

In vitro incubation of human bone marrow cells with alcohol in concentrations common in clinical intoxication inhibits the growth of granulocyte colonies, even in the presence of high concentrations of vitamins such as folic acid. This decrease has been shown to be secondary to inhibition of colony-stimulating activity by T-lymphocytes rather than by a direct toxic effect of alcohol on the myeloid precursors. Colony-stimulating factor is a hormone that increases the production of PMNs in vivo. The impact of acute or chronic alcohol ingestion on serum concentrations of this factor has not been assayed to date.

Effect of Alcohol on Bone Marrow Release of PMNs

Controlled experiments have shown that release of PMNs by the bone marrow, the next step in mobilization against infection, is not inhibited by acute intoxication, nor by chronic alcohol administration for up to 4 weeks. In addition, circulating PMN counts have remained normal during ingestion of 200 to 300 grams of alcohol a day for up to 2 months under controlled conditions in experiments with animals. Also, some humans have been administered alcohol in a controlled environment for up to a month without changes in PMN release.

Effect of Alcohol on Delivery of PMNs to the Inflammatory Site.

The next step is delivery of PMNs to the site of inflammation. Here we do find abnormalities caused by alcohol. Back in 1938, Pickrell reported that acute intoxication in rabbits blocked the development of a local inflammatory infiltrate in response to intracutaneous infection with bacteria. Thirty years later, Moses observed the same effect of alcohol in studies that involved direct microscopy of transilluminated injured tissue in a rabbit ear model. This failure of intoxicated subjects to mobilize a local PMN response to inflammation has been confirmed in humans using the skin window abrasion technique. The mechanism for this is systemic, because it cannot be

produced by local application of alcohol at the inflammatory site, nor is it dependent on local skin temperature. Inhibition of PMN delivery requires intoxicating blood concentrations of alcohol; chronic drinkers who are not intoxicated do not have decreased PMN mobilization.

Effect of Alcohol on PMN Adherence to the Blood Vessel Endothelium

The next step in PMN defense is adherence of the PMNs to blood vessel endothelial cells prior to their movement into the inflamed tissue. A direct effect of alcohol on this adherence has not been reported, but in vitro studies with whole blood have shown that alcohol causes a dose-dependent depression of granulocyte adherence to nylon fibers. Furthermore, in vivo administration of alcohol causes a dose-dependent fall in PMN adherence that correlates with the degree of inhibited PMN delivery to the inflammatory site. Pharmacologic correction of the adherence defect is associated with a return to normal PMN delivery, and this in turn leads to increased survival from bacterial infection. Thus acute alcohol, in sufficiently high concentrations, blocks the delivery of PMNs by interfering with their adherence to the endothelium. The effect is dose-dependent and can be reversed by pharmacologic agents or by ceasing alcohol intake. In contrast, chronic drinking that does not raise the blood alcohol level above 100 milligrams percent does not alter adherence or delivery of PMNs.

Effect of Alcohol on Blood Vessel Penetration by PMNs

After the PMNs adhere to the endothelium, they must penetrate it to get to the tissue, a process called diapedesis. The property of deformability is a central feature of this penetration; the PMNs must flatten to pass between the endothelial cells. Although it has been shown that alcohol exposure increases intracellular cyclic AMP in PMNs, and this is known to inhibit microtubule aggregation and cell movement, the migration of PMNs through millipore filters is not inhibited by alcohol concentrations up to 500 milligrams percent (blood alcohol concentrations in that range are often lethal). No direct deformability measurements have been made with PMNs exposed to alcohol in vivo or with cells from patients with cirrhosis.

Effect of Alcohol on Chemotaxis

Penetration of the endothelium is followed by chemotaxis, the directed migration of PMNs toward the area where the inflam-

matory mediator is being generated. The incubation of PMNs in vitro with concentrations of alcohol commonly obtained with heavy drinking has no effect either on PMN chemotaxis or in chemotactic factor generation. Nor have studies involving acute intoxication of normal volunteers shown any depression of in vitro PMN chemotaxis. However, chronic alcoholics admitted for withdrawal have been shown to have less chemotactic response than normal controls. Moreover, half of a group of alcoholics drinking daily in our controlled studies had decreased chemotaxis. When chronic drinking leads to cirrhosis of the liver, 70-90 percent of patients develop a serum inhibitor of chemotactic factor that markedly inhibits the chemotaxis stimulating ability of either their own or normal serum. The inhibitor, which appears to be an immunoglobulin-A (IgA), is predominantly active against the chemotactic factor C5A. Studies indicate that PMNs from these patients remain capable of responding to normal chemotactic factor.

Although investigators have consistently found inhibited in vitro chemotaxis in cirrhosis, a study we recently completed using skin windows demonstrated that patients with advanced cirrhosis were able to mount a normal PMN mobilization. Thus the host appears to be able to compensate in vivo for the chemotactic factor inhibitor that is effective in vitro.

Effect of Alcohol on Phagocytosis and Killing

The final step in the mobilization of PMNs is phagocytosis and killing of the invading microorganism. Numerous studies have shown that phagocytosis and killing by PMNs will take place in concentrations of alcohol that would kill the host organism. No studies of lysosomal enzyme release have been reported.

Summary

To summarize the information regarding PMN functioning under various conditions of alcohol exposure, chronic drinking appears to depress marrow polymorph production so that particularly under the stress of acute infection, alcoholics can manifest granulocytopenia that corrects rapidly on withdrawal from alcohol. Acute intoxication blocks mobilization of PMNs from circulation into areas of inflammation, thereby limiting the host's ability to control local bacterial infection. Thus reduced polymorph delivery is not seen in chronic drinkers with subintoxicating blood alcohol levels or in

patients with cirrhosis. The delivery defect parallels a dose-related inhibition of polymorph adhesion to surfaces, including the endothelium. Correction of the adhesion defect is associated with improved delivery. In vitro chemotaxis defects seen under certain drinking conditions do not cause reduced skin-window polymorph delivery. Also, phagocytosis and bacterial killing are not inhibited by alcohol.

Cell-Mediated Immunity

The next arm of host defense is cell-mediated immunity. There is both clinical and laboratory evidence that cell-mediated immunity is impaired by alcohol.

Clinical evidence includes data from Scandinavia, Australia, and the United States indicating that the frequency and severity of tuberculosis is much greater among alcoholics than among the general population. Cell-mediated immunity is the primary host defense against this disease. Also, cancers of the head and neck, often associated with Epstein-Barr virus in the tumor cells are very common in alcoholics. Epstein-Barr virus is normally latent following primary infection, and recurrent isolations occur under conditions of poor cell-mediated immunity.

Laboratory evidence includes studies of delayed hypersensitivity, which is measured by skin reactions to antigens. Comparison of alcoholic patients and normal controls has shown that alcoholics have fewer and smaller skin test reactions to a variety of antigens. The degree of inhibition is greatest among patients with alcoholic hepatitis, but less so in those with stable alcoholic cirrhosis. Moreover, improved liver function or withdrawal from alcohol correlates with improved skin test responsiveness. Acute intoxication and chronic drinking in a controlled environment do not reduce established delayed hypersensitivity, but sensitivity to a new antigen, which develops normally in noncirrhotic alcoholics admitted for alcohol withdrawal, is inhibited in patients with cirrhosis, also in patients who continue to drink during the sensitization period. In our clinical research center we tried to induce new delayed hypersensitivity in subjects while they were drinking, but they would not sensitize. Rats fed alcohol for 3 months in quantities sufficient to produce fatty livers also failed to sensitize, and at autopsy they showed atrophy of the thymus and spleen, two organs that are important in cell-mediated immunity. The inhibition by alcohol of cell-mediated immune skin test sensitization is dependent on the alcohol dose and the duration of the alcohol exposure.

Most alcoholics with leukopenia—low white blood cell counts—also have low absolute lymphocyte counts, which rise on withdrawal from alcohol. Enumeration of T-lymphocytes in alcoholics shows lower levels of these cells than in the normal population. The decrease correlates directly with the severity of hepatocellular injury, being more pronounced in alcoholic hepatitis than in stable cirrhosis. However, two studies of alcoholics drinking in a controlled environment, and one study using guinea pigs in which good nutrition was maintained, failed to demonstrate lymphopenia or changes in T-cell number after 1-6 weeks of exposure to alcohol.

Incubation of normal lymphocytes in alcoholic solutions suppresses their blast transformation in response to several mitogens. Moreover, lymphocytes from chronic alcoholics with varying degrees of liver disease demonstrate poor response to phytohemagglutinin (PHA) when tested in the absence of alcohol but have normal responsiveness to specific antigens. Others have reported normal or even increase lymphocyte transformation in patients with acute alcoholic hepatitis. A serum factor that blocks mitogen-induced lymphocyte transformation *in vitro* has been described in patients with alcoholic cirrhosis and is correlated with the degree of lymphopenia. One study found that patients with acute alcoholic hepatitis had impaired concanavalin A-inducible suppressor T-cell activity, in contrast to patients with stable cirrhosis.

Cytotoxic natural killer cell activity of lymphocytes from normal volunteers was found to be depressed when assayed in the presence of alcohol, and the depressed activity was associated with decreased binding to target cells. In contrast, studies of cells from chronic alcoholics have shown normal or increased natural killer activity. Thus the inhibition noted with *in vitro* alcohol exposure may not reflect *in vivo* events; alternatively, the inhibition may require the presence of alcohol in the assay system. Nondrinking patients with cirrhosis have defective natural killer cell activity, especially if they are significantly malnourished, although their serum and cells do not suppress natural killer cell activity of normal subjects.

Alcohol has no effect on the production of macrophage migration inhibition factor by lymphocytes. In contrast, random and directed migration of T-lymphocytes *in vitro* has been found to be inhibited after incubation in concentrations of alcohol achieved by moderate drinking.

To summarize, impairment of cell-mediated immunity by alcohol may be highly relevant to AIDS. Alcohol has significant inhibitory

activity against cell-mediated immunity. Clinical evidence includes the higher frequency of tuberculosis and head and neck cancers in alcoholics. The numbers of circulating T-lymphocytes are also reduced in some alcoholics, and the ability of the lymphocytes to undergo blast transformation is also reduced. This is associated with poor response to skin test antigens and failure to develop immune responsiveness to new antigenic exposures. Furthermore, alcohol incubation of lymphocytes results in similar failure of transformation, cytotoxic T-cell activity, and migratory movement. Thus, both in vivo and in vitro, alcohol interferes with cell-mediated immune function. This is more marked in patients who drink chronically, especially when their drinking has caused some degree of liver damage.

The Reticuloendothelial System

The next area of host immune defense to be discussed is the reticuloendothelial system (RES) and macrophage function. It has been demonstrated that the rate of clearance of aerosolized bacteria from the lungs of rats is decreased when the animals are intoxicated. This inhibition is due to several effects of alcohol, including depression of ciliary function, decreased surfactant production, inhibition of PMN migration into the lungs, and suppression of alveolar macrophage function. Livers from rats fed alcohol for 3 weeks showed reduced clearance and killing of perfused bacteria, and intact rats that were acutely intoxicated showed depressed clearance of microaggregated albumin. Finally, in a study of 12 alcoholics who had no evidence of cirrhosis and were tested for RES activity within 24 hours of admission for detoxification, clearance of intravenously administered human albumin was significantly slower than in normal subjects but improved to normal in 4-7 days in all cases. In summary, acute intoxication inhibits the clearance of bacteria from the lungs and impairs the RES, probably secondary to interference with macrophage mobilization, activation, and phagocytosis.

The Humoral Immune System

The humoral immune system has two components—immunoglobulins and complement. The concentration of immunoglobulins is normal in alcoholics unless they have cirrhosis, in which case the concentrations are very high. This seems to correlate with the challenge of bacterial antigens from the gastrointestinal tract,

which are brought into the system by blood that is shunted around the liver; normally, these antigens are screened out by the liver. In 1909, Parkinson showed that rabbits chronically administered alcohol failed to develop antibodies when exposed to a new antigen. This has been confirmed in later animal studies, and we have confirmed it in a study of human alcoholics. However, the response to an antigen to which the organism has already been exposed is unimpaired by alcohol.

The effect of alcohol on the complement system is very uncertain, because no adequate studies have been done to determine whether there is any interference from alcohol or the alcoholic lifestyle on this system.

To summarize, immunoglobulins are elevated in alcoholic liver disease, and this elevation is associated with increased spontaneous immunoglobulin production by lymphocytes. Subjects drinking at the time of antigenic challenge develop little or no antibody response to the new antigen but show good response to antigens to which they have previously been sensitized. Data on the effects of alcohol on the complement system are too conflicting to allow generalization, although serum bactericidal activity may be impaired transiently by acute intoxication. Patients with cirrhosis of the liver tend to have reduced serum complement activity.

Question and Answer Session on Dr. MacGregor's Paper

Question: Dr. MacGregor, are there any data on the effects of acute alcohol intoxication on lymphocytes?

Dr. MacGregor: I do not know of any studies on the effects of acute intoxication on lymphocyte function. There have been studies of those functions in chronic drinkers, involving in vitro testing of their lymphocytes, but to my knowledge no studies have yet been done in which cells from acutely intoxicated subjects have been examined.

Question: Among gays, the individuals most affected by the AIDS epidemic, alcohol is rarely used alone. There is usually concurrent use of other drugs with alcohol. Is there a good review of the effects of concurrent drug use on the immune system, and are there particular combinations that are especially damaging to the immune system?

Dr. MacGregor: I don't know of any good review of that area. The immune system effects of individual drugs such as marijuana and intravenous drugs have been studied, but I don't know of any studies assessing the effects of concurrent drugs on the immune system, nor of studies comparing individual drugs for immunosuppression.

Question: Is there any evidence that tolerance develops to the immunosuppressant effects of alcohol or other drugs?

Dr. MacGregor: Controlled studies have shown that immunosuppressant effects from alcohol still were present after 4 weeks in humans and 8 weeks in animals. We know that tolerance to alcohol involves membrane changes in the central nervous system, so it might be possible that it also affects the membranes of lymphocytes and macrophages in a similar way, but in the experiments that have been done, no evidence of immunosuppressive tolerance has shown up.

Question: How does alcohol compare with other drugs as an immunosuppressive agent?

Dr. MacGregor: The belief that alcohol interferes with host defense is based on the data I mentioned that shows greater prevalence and severity of diseases such as pneumonias and bacteremias. Only in the past few years, however, have people begun to think that alcohol may have some direct effect on cell-mediated immunity. There have been no comparisons of alcohol with, say, prednisone, on cell-mediated immunity, but from our own in vitro studies of alcohol, I would say alcohol is not nearly as immunosuppressive as prednisone. I would view alcohol as a moderate immunosuppressant, particularly for cell-mediated immunity. It has enough of an effect that I could advise someone at risk of becoming immunosuppressed to avoid it.

Question: What effect, if any, would alcoholism have in someone carrying the virus?

Dr. MacGregor: That is obviously one of the biggest questions we face, but the answer is that nobody really knows. Let me outline what we do know. HIV infects T-cells, and the spectrum of disease varies from no symptoms at all to full-blown AIDS, but we do not understand why people move from one stage to the next along that spectrum. Although a lot of epidemiological study has been done, we still don't know what can push an infected individual from one stage into another. However, common sense suggests that alcohol, which may be an immunosuppressant drug, might add one more

burden to an individual who is already immunocompromised. There is some clinical evidence that patients with ARC or AIDS have worsened when treated with the immunosuppressive drug prednisone. I would say to people who are infected with the virus and have no symptoms that it would be wise to stay away from anything that is immunosuppressant, including alcohol. Does that mean that everybody who is HIV antibody-positive and drinks is going to develop full-blown AIDS? That seems quite unlikely, but since we do not know what causes the progression to AIDS, if I were positive for HIV, I would do my best to avoid immunosuppression. That advice may be even more cogent for someone who has ARC.

AIDS AND ALCOHOLISM: THE PARALLELS

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I am a philosopher hiding out in a school of public health. I am not an expert on AIDS, but I serve on a group called the Hastings Center Project on AIDS, Civil Liberties, and the Public Health. The Hastings Center, located in New York, is a meeting ground for philosophers and scientists of various kinds. For the past year I have been learning a lot about AIDS and reading everything about it I can get my hands on. My presentation today comes out of that experience and my longstanding interest in alcohol problems and alcohol policy.

There is growing discussion of how alcohol and drug abuse weaken the immune system and constitute a risk factor for AIDS. The possibility of an indirect causal connection between alcohol and AIDS is an interesting and important question, but I am interested in another kind of connection between alcohol and AIDS. I am interested in the parallel between AIDS and alcoholism as public health problems.

AIDS and Alcoholism: The Differences

First, let me deal with the differences. AIDS, as everyone now seems to accept, is a communicable disease caused by human immunosuppressive virus, or HIV. In the United States, over 85 percent of all cases are traceable to two risk groups: homosexuals and intravenous drug users. In other areas of the world, such as Africa, the picture is very different. In these other areas, AIDS seems to be transmitted heterosexually, as well as through contaminated needles, and at much higher rates than we see here, although we are still unclear about the social epidemiology of AIDS in various parts of the world. With alcoholism, almost the entire society, or at least everyone who drinks, is at risk of alcohol problems. Although alcohol has played a part in nearly every society, today we are coming to see that our alcohol problems are partly the dark side of the marketplace. Problems can be intensified by the way alcohol is sold, how cheap it is, and how it is promoted. Socioeconomic as well as individual factors compound the issues.

Also, so far, AIDS appears to be a fatal disease, whereas alcoholism can be cured. Scientists are racing to find a vaccine for AIDS. They may never find one, but a scientific breakthrough is a possibility. It may take a good deal longer than recent newspaper stories suggest. While some speak of a general cure for alcoholism, most do not, and the prospect of a general preventive agent for alcohol problems seems out of the question.

If we think about these two problems in terms of their most superficial characteristics—how they are transmitted, who is at risk, and the prospect for prevention and cure—the differences are striking. But if we look below the surface at these two public health problems and examine the central value conflicts they engender, the similarities seem more profound. Indeed, without detracting from the scientific and technical advances on which our progress in this area is made, I would argue that public health problems are essentially disputes over the boundaries of what we call the community—skirmishes between different groups about the meaning and scope of the body politic. If, in thinking about these problems, we paid more attention to that debate, we might have a better chance of coming to grips with AIDS as well as alcoholism.

AIDS and Alcoholism: The Similarities

Now let me note some parallels between the two diseases. By definition, public health problems are formed by the different characteristics—the warp and woof—of each society. Public health problems like AIDS and alcoholism are different in Africa than they are here. Public health problems may affect only a minority of a society, but in most cases reducing the problems requires painful changes to social arrangements that benefit large numbers of people, often the majority. For example, preventing AIDS without a vaccine surely requires changes in the way we treat homosexuality in the larger society, just as preventing alcoholism may require changes in the way all Americans drink.

Thus a central issue for both of these problems and all public health problems is the extent to which claims upon the total community to change traditional attitudes and practices, as well as potential losses of liberty or property rights, can be successfully pressed in order to strengthen the common health. Both AIDS and alcoholism illustrate nicely how promoting the public health means not merely taking away something—property rights or individual rights—but

also expanding something. Often we have to do both of these things at the same time, simultaneously making restrictions and creating more rights; this is likely true for a lot of issues in public health.

Public Health vs. Morality

For both of these diseases, defining the bounds of the body politic has been linked to two very different views of the purposes of the law, namely promoting the public health and promoting morality. Legal moralism is a recurring dispute in American life. With alcohol we had Prohibition, and with AIDS we still have many, many laws against homosexuality. For both problems, the limits of the public are at the boundary between personal liberty and public health, and the question becomes: To what extent can we promote health and safety by restricting people's private behavior or behavior that they claim is private? This is the question of public health paternalism. The question of limiting drinking generally to reduce alcohol problems raises this issue, just as limiting certain forms of high-risk sexual activity does. Thus we see that both problems are or have been fraught with key ethical and political conflicts over the meaning and scope of the public health. Paternalism, moralism, the rights of individuals, privacy, and autonomy—disputes like these determine what is public about public health. In the case of AIDS, as long as we fasten our attention on the technical issues alone, and particularly place our hope solely on the promise of a vaccine, we ignore these crucial value conflicts.

At the heart of the controversy over AIDS or disputes about the meaning of public health, one side views the problem as one of deviant minorities whose lifestyle threatens the public health. Another side views the central issue as a threat to at-risk groups from a bigoted majority. Indeed, one observer has speculated that the AIDS debate is a dispute over which of two publics—the at-risk groups or the general population—should take priority in terms of public policy. There is a third view, one heard less often, that there is only one public—a public made up of both those at serious risk of contracting AIDS and those at minimal risk or no risk at all. Preventing AIDS in this model, whether by education or vaccine, will require sacrifices and concessions by the whole population, not merely those most at risk. This total community effort is necessary, because, in this view, what we call public health is battling disease wherever it falls in the community, and combatting disease successfully means removing obstacles or prejudices to progress located in the very organization and patterning of our shared lives. In

this view, public health is based on a conception of democracy in which citizens dwell in two realms at the same time—the public realm and the private realm—and thus protecting the public health becomes a war fought on both fronts.

In an earlier period we believed that alcoholism was primarily a problem of only a minority of vulnerable individuals who were particularly susceptible to becoming alcoholic. But this new public health approach for alcohol problems draws everyone into one community and presents a unified strategy for preventing problems by restricting alcohol commerce generally. This is not the only strategy involved, but it is the central one. With this redefinition, alcohol problems move from being problems of a deviant minority who have difficulty with alcohol to being all of America's problems with drinking. This shift in orientation has been marked with a lot of conflict, and the conflict is still going on. However, the central issue involves enlarging and deepening the bonds of the public in preventing alcohol problems.

Thus the public health perspective enlarges the scope of the public interest from merely treating sick alcoholics and providing education to including reasonable controls over all drinking and over alcohol producers. It also means heightening the sense of community among all citizens, because protecting the public health means accepting higher taxes on alcohol, a higher drinking age, restrictions on advertising and other promotions, as well as aggressive public education including labeling to inform the public of the risk from this product. We see some evidence that this new perspective is gaining a kind of grudging acceptance in the Nation's capitol as well as among the States.

A rival philosophy to this public health approach is the doctrine of legal moralism. Many of our leading public policy disputes in health today—abortion, teenage pregnancy, alcoholism and drug abuse, AIDS and other sexually transmitted diseases—are actually disputes between the moralist point of view of how these problems should be handled and what might be called a public health approach.

Legal moralism is the use of the law to promote virtue and punish vice. Like public health, legal moralism relies on law and regulation to promote community ends, but moralism restricts liberty to protect against a moral harm, not a physical one. Moralism is the defense of the majority's morality, using law to protect the majority from a deviant group. According to moralists, the majority in any

society is a moral majority (a term that actually appears in some very old literature) and a chief function of the law is to punish that which is offensive, degrading, vicious, sinful, corrupt, or otherwise immoral.

Whatever the larger motives of Prohibition—eliminating corruption in politics, attacking the filth and degradation associated with the saloon, improving the public health, and ending the exploitation of the working classes by the alcohol trade—these broader motives of Prohibition were changed because prohibitionists decided that only total prohibition would do. And in the end, total prohibition came to mean the defense of a traditional culture, a culture bound in a code of abstinence and other traditional values opposed to modern movements or modernity. In the end, this insistence on total prohibition delivered the movement into the camp of the moralists and the Anti-Saloon League. The dominance of the Anti-Saloon League in the movement was further evidence that the central goal of Prohibition was morality, not public health.

The mistake of Prohibition, then, was to confuse public health and moralism. It is the mistake we risk in dealing with the AIDS threat. One way we can avoid this mistake and avoid such conflicts is by saying that the word community implies no shared values whatever, that no one can tell anyone else how they should live their lives in private, and that the law especially should not in any way attempt to regulate conduct that occurs in private. With this civil libertarian approach, we could rely on science to help us out, as we tried to do in the period after Prohibition. We decided we weren't going to be moralists anymore, that we were going to rely on science, that alcoholism is a disease and not in any way a moral issue. And we waited for science and therapy to deliver us from the problem.

This didn't occur. Instead, we had a "public health revolution" during the 1960s and 1970s that stressed prevention. This recent preventive revolution I am talking about, at least for alcoholism, is not a rejection of the disease concept, but rather a way of saying that it's too one-sided. We need the science, but on the other hand, we still need to see ourselves in some sense as a community with claims on one another to prevent alcohol problems as well as AIDS, and this means restrictions as well as expanded rights.

The temptation to seek refuge in a technological shortcut in social conflict is great. Again, let me say that we should keep pressing for an immunizing agent if one is to be found. In the case of AIDS, the

great fear of many is that battling AIDS will become a cover for battling homosexuality—and obviously it has in many cases—and for rolling back gay rights ordinances and tightening discrimination against gays in such areas as housing, employment, and military service. So great is this fear that some believe the first responsibility of AIDS policy is to protect the two at-risk groups—drug addicts and homosexuals—from discrimination and further prejudice.

The Federal Government has recommended mandatory screening of all groups at risk. William F. Buckley, Jr. would go much further. In an especially odious column in the Op-Ed section of *The New York Times* not too long ago, he recommended that the government screen the two largest at-risk groups to locate those infected with the AIDS virus and to apply tatoos to those who are actually AIDS victims. The tatoos, applied on the buttocks of homosexuals and on the upper right arms of addicts, would serve as a warning to those who came into intimate contact with carriers of the virus. This proposal, recalling the treatment of Jews and homosexuals in Nazi Germany, along with talk of quarantine, has raised the fears of many that the most important issue still is protecting the rights of potential victims of AIDS rather than the public at large. The moralist, on the other hand, responds that we should be more concerned with the overwhelming majority whose lifestyle is not homosexual and who do not use drugs (at least not intravenously).

I think the central question is how we respond to the moralist thrust that is recurrent in our society. Do we retreat to the point where we have no claims on one another for conduct that is injurious even to sexual partners in their privacy of their bedroom? We can oppose the tightening grip of a communal morality by rejecting such claims altogether, by saying that we are not a community but a collection of free, consenting adults. But I would argue that this can backfire and that it ignores the many ways in which we already feel ourselves to be a community—one body in a sense—but not a community tied together by a single vision of the moral life. We do, however, share a common interest in protecting and promoting our common health. Indeed, one of the crucial shifts in public policy in this century has been the move from the tight bonds of a communal morality to the loose boundedness of public health, including some form of paternalism.

In the case of AIDS, the search for a vaccine can become an excuse to avoid the question of paternalistic restrictions on sexual practices to protect the health and safety of the public, including those most at risk as well as the larger public. Whatever the pace or ultimate outcome of developing the vaccine, I think we will not be

able to duck this issue. Whatever else the AIDS epidemic has accomplished, it has focused attention on the scandalously high level of sexually transmitted disease among gays. Restrictions on consensual conduct are highly questionable when based on the desire to promote a sexual morality, but community restrictions on sexual conduct to promote the health and safety of those engaged in high-risk sexual activity is legitimate.

Of course, there are many practical and theoretical limits to this power. The goal of protecting the public health does not include licensing police raids on private bedrooms to see if risky sex is being practiced. But restrictions on public baths or bars where high-risk sex is practiced can, under certain circumstances, be legitimate. And public health education can mandate teaching about the dangers of certain kinds of sexual activity that most scientists agree are risky, such as promiscuous sex and anal sex with unknown partners. We can mandate that our communal education teach that these forms of high-risk activity have to be lowered substantially.

Individual Rights

We tend to forget how often protecting the public health means protecting and even expanding the rights of individuals. The Supreme Court ruling in the case of abortion rights, in *Roe vs. Wade*, was a public health advance based on widening the rights of women to abortion. In the case of alcoholism, before the recent revolution in our thinking about prevention, we were preoccupied with expanding the rights of alcoholics, getting them out of jail, preventing them from being summarily fired. That preoccupation was an important antecedent to the prevention revolution, because you can't very well convince the public that we can prevent a problem if they are convinced that the problem is coming from a small group of people who threaten their values. In a sense, we have to recognize that individuals are members of a shared community before prevention can make sense as a communal idea. This change in our thinking about alcoholism took place under the banner of the disease concept, when we established that Prohibition and moralism was not our way and made a determination that the alcoholic as a person deserved fair treatment.

As in the case of alcoholism, we may find that progress in fighting AIDS will come only when we recognize that there is one public, and that strengthening the public health is accomplished by simul-

taneously enlarging and contracting the public and private spheres at different places. For homosexuals this strategy means expanding their rights. Limiting the majority's right to discriminate against gays, while at the same time seeking legitimate ways—even if there are very few legitimate ways, in my view—of limiting certain high-risk gay sexual practices, such as frequent sexual contacts with anonymous partners in commercial establishments or public places, is the twofold strategy for a successful AIDS policy.

The main strategy for battling AIDS is ending the longstanding practice of legally discriminating against homosexuals. Laws forbidding sodomy remain in as many as half the states and remain a barrier to sound public health education campaigns. Discrimination in areas such as housing, employment, insurance, and health care not only discourages seeking good medical attention, it also encourages the isolation of gays.

Expanding the realm of private rights also includes shoring up the rights of victims of AIDS. Depending on which state you are in, insurance companies are trying to screen out those carrying the AIDS virus. Some private employers are trying to do the same thing, seeking to fire potential AIDS cases as a way of avoiding the cost of treatment. The AIDS victim is often thrown upon the mercy of public hospitals—institutions that are currently under siege from Federal cutbacks and have been for a number of years before Gramm-Rudman-Hollings. If an AIDS patient is lucky enough to live in a place like San Francisco or New York, care in the public system is adequate to very good. In most other places it is not so good. Here, as in the case of alcoholism, the AIDS victim falls afoul of an American health care system that is a jerry-rig of private and public policies, with each side passing the buck to the other, and with the same game going on between Federal, State, and local levels. Meanwhile, the victims are often left with poor health care, inadequate insurance or none, or no health care at all. It is probably only a matter of time before someone discovers a way to get rich treating AIDS patients, and this commercialization of AIDS treatment will only complicate the chaos.

Conclusion

Where does this brief consideration of the parallel conflicts of two important public health problems leave us? AIDS, like alcoholism, creates a conflict about the bounds of community and the meaning of public health. Battling AIDS and alcoholism successfully depends

on the outcome of this conflict. At the heart of the conflict is a dispute about the claims of community and democracy. Are we merely a community of private individuals whose only claim on each other is that we avoid injuring each other? Are we a community held together by a common and universal religious morality, a shared way of living that shapes in close and intimate ways our sexual conduct, our religious beliefs or lack of them, as well as our decisions about abortion and our treatment of seriously ill newborns? Or are we in some sense one *body* politic—a community based on shared equality and commitments to public health that include restrictions on liberty as well as expanded rights for those suffering from discrimination and prejudice?

Question and Answer Session on Dr. Beauchamp's Paper

Question: Dr. Beauchamp, I wonder if an alternative standpoint relative to sexual practices in the gay community would be for health agencies to do research on the use of condoms and viricidal agents that might allow sex practices to be undertaken safely. Would it not be a viable alternative, from the public health standpoint, simply to make the currently unsafe practices safe rather than restrict them?

Dr. Beauchamp: Science has helped with all the other sexually transmitted diseases, and a result was that gays decided they could live with those diseases because they could get treated for them. The reason I think those activities have to be restricted is not because they are morally wrong but because they are producing a lot of disease and death. We are very limited in what we can do technologically, and we may have already done most of what we can do along those lines. What we have to do now is mostly health education, and we must be very clear in our education efforts that certain forms of sexual activity are high risk.

Question: I am intrigued by your argument that one way to resolve some of the problems is to give gay people more rights in certain regards while restricting their right to engage in certain sexual behaviors. I would like to nail you down to specifics. First, one of the explanations given for gay male promiscuity is that there is no recognized social institution for gay male relationships. Would the new rights to be given include legalizing homosexual marriages and government recognition of homosexual relationships? Second, let's say we are going to cut down the number of gay bars. There are good bars and bad ones, good places where gay people can hang out

and bad ones. Who is going to make those decisions and how will they be made?

Dr. Beauchamp: I don't have any problem with legalizing cohabitation or marriage among gays. I think the normalization of gay life is something that is central to reducing AIDS. On the other hand, if we are going to incorporate gay life within the body politic, then gays, like the rest of us, also have the other side of citizenship, which is accepting restrictions.

Now, the question about the bars is a tough one. I don't know how one could discriminate among bars. If public policy toward gay bars is nothing more than having cops go in and roust gays, then it is very bad policy. But we ought to try, in some limited way, to do something about bars that are a menace to public health.

COUNSELING GAY MEN ABOUT SUBSTANCE ABUSE AND AIDS

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Counseling gay men these days means counseling them about AIDS, and when one counsels them about AIDS, it is also usually necessary to counsel them about substance abuse. Gay men are at very high risk of several different health problems including AIDS, sexually transmitted diseases, and substance abuse. Before 1981, we in San Francisco were very concerned about substance abuse and sexually transmitted diseases, which were rising to epidemic proportions. Then, when the AIDS epidemic began, we found that we were very alone in exploring connections between substance abuse and this new illness. There was tremendous denial and resistance on the part of AIDS workers to incorporate substance abuse guidelines or recommendations into their AIDS brochures.

Also, when we tried to refer gay men to various substance abuse agencies, we found that suddenly there were criteria against gay men in general, gay men with positive antibody tests for HIV, and gay men who were diagnosed with AIDS or AIDS-related complex. It was very difficult for us to discern whether the agency was responding with homophobia, whether it was a matter of fear or illness, which is a very legitimate fear, or whether it was simply anxiety on the part of alcoholism treatment people being faced with a new group. I believe that anxiety does arise when the alcoholism field is faced with a newly identified group. Furthermore, the field of alcoholism treatment has been moving away from medical science for some time, but patients with AIDS make it necessary for workers to familiarize themselves with medical science.

Because a large number of gay men in substance abuse programs were coming down with AIDS or ARC, we began to realize that there is a definite connection between substance abuse and those illnesses. We were aware, as Dr. MacGregor has pointed out, that there are connections between alcoholism and impaired immunity, although no one was saying much about this. So we developed a task force and began developing literature to present to the population at risk and to the general public.

There was little money available to start new programs with special focus on substance abusers with AIDS, so we decided to encourage modifications in existing programs and to train counselors to become familiar with AIDS—its incidence, signs and symptoms, progression, treatment, the meaning of AIDS testing, and psychosocial issues surrounding the disease—as well as with substance abuse. We also needed to become experts in working with gay men.

The good news is that the basic substance abuse counseling techniques are very effective in working with gay substance abusers who have AIDS or ARC. Nevertheless, many of our cherished principles of substance abuse treatment do need to be modified in working with these people, and this is difficult for many workers in the alcoholism treatment field to accept. It is commonly felt, for example, that when you start making alcoholics “special” you give them an excuse to drink. Another basic principle in alcoholism treatment is that the client has to take individual responsibility. In working with substance abusing AIDS patients we actually take over some of their responsibility. We even reach out to these clients when they are still drinking or taking drugs. For these individuals we also have to replace some of the standard outcome goals, such as going to work, with other goals such as developing a better social life or getting involved in their treatment for AIDS.

Why do we consider this group different? It is because they are in the midst of catastrophe. Many of these individuals have an abbreviated life expectancy, so any kind of intervention has to be speeded up. Many of them are also at the limit of their coping skills. The other day, during a short walk, I encountered a friend I have known for a very long time. He was sitting by the door of a bar, emaciated. By his appearance, I thought he most probably would die within the next month. He was totally isolated from all the people having a great time inside the bar. I asked, “How are you doing? How’s your lover doing?” He replied, “Oh, I can’t stand that son of a bitch.” And I started thinking, how are we going to reach this man with a message about substance abuse at this point in his life?

Techniques and Approaches

The counseling of gay men is a specialty, and doing it right requires sensitivity, knowledge, and various skills. Being an ace alcoholism counselor does not automatically mean that you have the skills to deal with gay men. It is necessary to realize, first of all, that they are not a single group but are very diverse. They come from all

socioeconomic levels and from all ethnic groups. Many of them are in the gay subculture, but many are not. Therefore, counseling must be individualized. We must honor the client's value system. We must know about his participation in the gay society and in the general society. We must understand the process of "coming out of the closet" and how to interact with people in different phases of that process. We must know about homophobia, including internalized homophobia. We must know about gay milieus, how gays socialize, gay language. We must be sex-positive and gay-positive, nonjudgmental and especially nonblaming. And we must proceed at the client's pace.

Now I want to discuss specific approaches and techniques in working with these individuals. We are designing strategies for various subgroups among them, in terms of the progression of the disease from antibody-negative, to antibody-positive but asymptomatic, to ARC, to full-blown AIDS. Another way to group them is according to their functional state. We design different strategies according to the individual's abilities and strengths. This categorization dictates different strategies for the dying, the bedridden, the ill but ambulatory, the weak but not sick, the able-bodied with a diagnosis of AIDS or ARC, the active users, the motivated, the unmotivated, and those undergoing detoxification.

The baseline approach in working with these individuals is to establish rapport, provide support, and honor the patient. The next step is giving clear information about AIDS and substance abuse. We need to know the current state of knowledge about AIDS, such as the signs and symptoms and the various wellness activities that the client can perform, and we need to get this information across to the client. We need to promote wellness, impart knowledge about safe sex and the relationship between sex and drugs, and provide referral information.

Alcoholism counselors also need to provide counseling on the matter of testing for AIDS—whether or not to take the test—and they need to be familiar with the pros and cons of this controversial program. Currently there are several tests with varying degrees of accuracy. Some groups are concerned that positive test results could be used to disallow insurance, to label individuals as homosexuals, or for quarantine purposes. Counselors must therefore know about resources for performing the test, the most current knowledge about the meanings of test results, confidentiality measures, and ways of handling the client's emotional responses to the test. A positive test can produce depression or anxiety that lasts for months.

Whether to take the test or not is a very difficult decision for the client at risk, and I think substance abuse counselors, bearing in mind how far along a client is in his sobriety, should help him make an informed decision.

Next we need to give information about the connection between substance abuse and AIDS, including direct transmission of the virus, the disinhibiting effect of alcohol and drugs leading to risk-taking, the immunosuppressive effects of these agents, and psychosocial factors.

With regard to direct transmission, the message about the spread of AIDS through intravenous needle use should be given in a manner congruent with the client's strengths, motivation, and degree of drug abuse. A highly functional amphetamine user, for example, may be able to internalize advice about total abstinence, whereas a recalcitrant client may only be able to hear the message about not sharing needles.

The most basic message, however, should be: Don't use drugs—because of their overall negative psychosocial consequences and their multifactorial relationship to AIDS. Now, I don't know if "Don't use drugs" is the way it should be worded, but I do think we need to get the message across that alcohol, drugs, and AIDS are related. The next message should be: Don't use needles. And the next message should be: If you do use needles, then use clean needles and don't share them—which may mean that we would need to actually demonstrate in the office setting how to decontaminate needles.

The Disinhibition Factor

In 1985, the San Francisco AIDS Foundation did a study that confirmed what we had thought for a long time—that there is a relationship between AIDS and alcohol, and between AIDS and drugs, that is based on a disinhibiting effect of these agents on behavior. The study found that getting loaded before or during sex is highly correlated with unsafe sex practices. We need to get this information across to our clients.

One client I was working with came to me because he couldn't get his life in order. He wanted to change jobs, but he lacked motivation. It became apparent after a few months that his basic problem was his heavy drinking, especially on weekends, when he would go

out and have his favorite sexual activities, which were very much on the unsafe list. The first step in dealing with this individual was to work toward sobriety. He did not gain sobriety for another year, but I think it was very important to keep edging him toward getting involved in different social activities, including AA, until he finally did make a decision to recover. When he finally gained control of his substance abuse, after multiple attacks of amebiasis and other sexually transmitted diseases, he was able to stop attending bath houses and having unsafe sex.

Another very difficult problem brought about by the disinhibiting effect of drugs occurs in individuals who are out of control in many areas of their lives. Again, the first step in working with such individuals is to help them become abstinent, while simultaneously increasing their socialization and providing them support. One of my clients in this category, a patient with full-blown AIDS, had made himself unwelcome in various AIDS residences because he would get drunk and break down doors. He was having difficulty stopping drinking. My first approach was to establish rapport with him, even going to his bedside several times to talk with him. Before I would leave I would always give him the message about substance abuse. In time, he was able to examine his substance abuse, to decide that he really did want to be in an AIDS residence, and to gain control of his drug problem.

Many individuals develop AIDS or ARC while they are still in the "fun" phase of the addictive process. They have not had years of processing and internalizing reasons to recover and the need to do so. Many do not even realize that they have a drug problem. Therefore, the therapist's first duty is to establish rapport. As trust grows, the therapist can provide basic information (sometimes gingerly) and support, while the client comes to grips with the concept of abstinence. Interventions, which include the participation of significant others and health care providers, especially in a united front, is another effective approach to resistant drug abusers.

Other approaches to sexual compulsions include increased socialization and dating, replacing unsafe sex acts with safe ones, such as licking the navel or the armpit rather than the anus, and referral to sex therapy groups or Sex Addicts Anonymous groups.

We also need to get across information about the immunosuppressant effects of drugs. All substances of abuse so far tested have shown some kind of immunosuppression. Several individuals with AIDS have described an intolerance to alcohol, as well as to

sedative hypnotic medications. As research in this area progresses, we will have more definitive information about drug-induced immunosuppression to help break through the client's denial.

Psychosocial Issues

People usually pass through stages in their response to the AIDS crisis. The first stage is usually disbelief and denial—"This is not happening to me!" At the beginning of the epidemic, many individuals stated, "AIDS doesn't exist," or "Aids is a rare disease." Denial is followed by hysteria and shock often lasting one or two months. The next stage involves anger directed at those believed to be responsible. This is followed by depression and withdrawal, then partial acceptance, then integration of oneself as having a new identity—of having AIDS, of being at risk, of being an alcoholic. Finally, there is the taking of action to help oneself and others against both AIDS and substance abuse.

This process is similar to stages observed in grieving, involving reactions to catastrophe and the formation of a new identity, and may involve several months or even years of internal dialogue and adjustment. In other words, we cannot expect these individuals to change immediately, it takes time.

Treatment strategies should be aimed at the client's stage of reaction and should be modified when the client's emotional responses change. Other frequently encountered emotional responses such as despair, depression, worry, and anxiety can be greatly magnified by substance use. The client's attempt to allay anxiety and depression pharmacologically backfires, and their agitation, stress, and negative thinking increase. Several gay men have committed suicide out of fear of developing AIDS, yet at autopsy they had no sign of the disease and were not even antibody positive. Since suicide and suicidal thoughts are highly correlated to substance abuse, the counselor must assess suicide potential in all gay male clients who display these emotional responses or are involved in substance abuse.

Sexuality Counseling

Sex counseling must be ongoing and must include more than merely listing sex acts that are safe or unsafe. The counselor must be knowledgeable about and sensitive to the full range of gay male

sexual expression, including long-term intimate relationships, casual sex, group sex, bisexuality, sexual abstinence, gay sexual fantasies, and both conventional and unconventional sex acts. Often, effective sexual counseling must include detailed discussions of sex behavior in the client's language. A client's current favorite sexual activity may be in the unsafe category and thus very difficult to discuss without leaving a sense of exposure, powerlessness, deprivation, and guilt. Casual and sometimes good-humored approaches to counseling usually yield the most open discussion, whereas the counselor's shock or discomfort will limit frankness.

The client may respond to the reading of a safe sex list by stating that he is in compliance, yet a more intimate discussion may reveal that he really isn't. By talking about the safe sex list, you provide the client with opportunities to ask the questions he wants to ask. He might want to know about such things as what lubricants to use with a condom, or whether it is safe to kiss a partner's legs.

Sex therapy techniques usually do not yield quick results. Time, patience, sobriety, and sometimes diligence are needed, especially in changing longstanding patterns. In the rush of this crisis, there are many who unrealistically expect people to change their deeply cherished sex acts instantly. Many clients have never experienced sex without intoxication, and, as a result, they have developed various sexual problems such as premature ejaculation, impotence, and decreased sexual desire. The first line of approach is to emphasize abstinence from drugs, explaining that sexual highs can be obtained without chemicals and that drugs depress sexual functioning. Sex pleasuring exercises, with or without a partner, are advised to increase sexual feelings and desires. The client is taught various exercises, such as deep breathing, and other ways of altering consciousness without chemicals.

Information about safe sex and sober sex should also be made to individuals who adhere to unconventional sexual practices, including sado-masochism. Many forms of unconventional sex are within the safe-sex limit, and even though unconventional sexual activities have been associated with heavy drug use, they have been satisfactorily performed without drugs.

Becoming comfortable with these concepts and attitudes is an essential component of effective treatment of substance abuse and AIDS, and will become increasingly important as the AIDS crisis deepens.

CO-DEPENDENCY IN AIDS: A CLINICAL PERSPECTIVE

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The AIDS substance abuse program at the University of California, San Francisco, came out of the work that Dr. Tom Smith and others had done with the AIDS-Substance Abuse Task Force in this city. It became increasingly apparent that two communities that needed to be working together closely—the AIDS care delivery system and the substance abuse treatment system—were not really talking with each other. Coordination between the two groups was needed, as well as education for both groups. Twenty-nine percent of people who have AIDS are intravenous drug users, including those for whom I.V. drug use is the only risk factor (18 percent) and gay and bisexual men who are also i.v. drug users (11 percent). Also, since alcoholism among gay men in San Francisco has been estimated at 33 percent, we assume that 33 percent of gay men with AIDS are alcoholic.

Because the AIDS care delivery system has difficulty coping with substance abuse problems, and the substance abuse programs have difficulty coping with AIDS patients, our project provides assistance to both groups. We provide in-service education about AIDS to the substance abuse treatment community, and education about AIDS to nurses, doctors, clinics, hospices, and others in the AIDS care delivery system. We have also about 150 people with AIDS and AIDS-related conditions who are substance abusers. They have been referred to us through various health systems in San Francisco for evaluation and possible treatment of their substance abuse.

We see ourselves primarily as a substance abuse agency, and we use standard interventions to provide opportunities for substance abusers to seek treatment if that is their choice. There are several

agencies in San Francisco that are sensitive to the needs of people with AIDS, so if these clients choose treatment we can refer them to an agency that can help them.

Why Bother?

A question that comes up repeatedly when an AIDS patient is also a substance abuser is, "Why bother about the substance abuse?" The patient himself is likely to argue that he has only a short time to live, so why worry about a drug or alcoholism problem. As one man put it to me, "So I'll die a happy corpse." People involved in treating AIDS patients sometimes make similar arguments—that the patient will die anyway, that substance abuse treatment would take away a coping strategy, that treatment is strenuous and confrontational and will increase the stress on these individuals, and that the use of drugs is a matter of personal choice anyway. Again, the idea being expressed is, "Why bother?" The same question is also raised in other areas of substance abuse. For example, "Why give alcoholism treatment to a person who is 70 years old?"

It is our belief that having AIDS cannot be an excuse for not treating substance abuse. People with AIDS have the right to substance abuse treatment. They have the right to make choices about how they will spend the rest of their lives, no matter how short their lives may be. There are also consequences of continued substance abuse—impaired health, denial of services, and denial of housing. The person in an AIDS residence who is intoxicated and disruptive may be asked to leave, because the other people with AIDS need comfort and support in a safe environment and should not have to deal with somebody's alcoholism or drug abuse. We do not have to make other people with AIDS co-dependent with such a roommate.

Professionals caring for AIDS patients often get caught up the "Why bother" mentality. For example, my colleague and I recently visited an AIDS patient in the hospital who was drinking up to a quart of liquor a day and was having numerous financial and legal problems—typical consequences of alcoholism—and we confronted him about his alcoholism. This was the first time anyone had made the connection between his alcoholism and the chaos of his life. It was news to him. Eventually he decided that he did not want to "die a drunk, like my father did," and expressed interest in getting treatment.

Shortly after we left the room, however, the medical team came to visit him. When the patient told them that the people from the AIDS substance abuse program wanted him to enter an alcoholism treatment program, they scoffed at the idea and instead suggested eating right, relaxing, and hanging out with a different crowd. Despite this enabling, the patient did eventually enter an alcoholism program. This incident highlights the need for coordination between various agencies involved with AIDS victims.

Problems of Care Providers

Another matter that comes up in substance abuse treatment is the morality issue. As Dr. Beauchamp pointed out a while ago, there are those who treat both AIDS and substance abuse as "moral issues." This sometimes occurs even among health professionals, who take to "lecturing" patients and becoming punitive. It often happens that a care provider is very supportive at first, but later becomes punitive because of having been "burned" by a patient.

Another issue has to do with the nature of the substance abuse behavior itself. For example, people who treat substance abuse are quite familiar with the ability of some clients to use manipulation to create divisions among the treatment staff. Clients in active addiction may be pseudo-compliant, or noncompliant, or they may question everything that is recommended to them. They may blow up problems with medication in order to get more, seeking treatment from several different physicians so they can get pain medication from all of them.

Unfortunately, while people who treat addictions are familiar with these behaviors, those who treat AIDS patients often are not. Many who go to work in the health care system for AIDS are especially warm and caring people, with a commitment and concern for others. They want to ease dying; they want to help people live as full and rich a life as possible. But when substance abuse is superimposed on the situation, these caregivers often experience disappointment and resentment and become punitive. The patient is not acting the way the care provider wants, and the work is no longer gratifying. This is a classic progression of co-dependency.

What we try to do is teach these providers an alternative way of behaving. We try to teach detachment and tough love—concepts I am sure all of you have heard of. In the case of health care professionals and social service people involved with AIDS patients, we

help them learn how to say certain things to their clients, such as, "When you don't show up for an appointment with me, there are consequences," or "When you are drunk or loaded, I can't talk to you." It is often very difficult to teach them this, however, given the reasons they entered the field in the first place.

Denial Problems in AIDS Patients

I will conclude with discussion of the denial mechanism in reference to AIDS patients. A co-dependency issue that often comes up is confusion between the denial that is normal after the diagnosis of a life-threatening illness and the denial associated with substance abuse. It would be cruel to try to puncture a patient's denial mechanism concerning AIDS. I also feel it is very important for us to give hope to individuals with this disease, because we do not know how long this epidemic will stay the way it is, and we do know that progress is being made in treating it. On the other hand, the denial that is used in connection with the continuance of substance abuse is deadly and must be broken. Substance abusers, even those with AIDS, can improve the quality of their lives.

It is also important to be aware that these two denial mechanisms often interact. Someone who is in strong denial about a substance abuse problem may simultaneously be having great difficulty accepting the diagnosis of AIDS. For this reason it is better not to bring up the subject of substance abuse treatment until the patient has had a couple of weeks or so to begin to absorb the impact of the AIDS diagnosis.

Motivation to enter treatment for substance abuse is essential. As you know, not every substance abuser is dying to get into treatment for substance abuse—unless they are dying—that is, unless they have "hit the bottom." What we try to do in our intervention is raise the bottom, but, truthfully, I have no illusion that every drug abuser I speak to will enter treatment. I do feel, though, that it is my duty to expose them to that possibility, and if they decline, to tell them what the consequences of their choice are.

Many people with AIDS are not motivated to get treatment for substance abuse; their problem hasn't gotten bad enough yet. An example that shows both the denial problem and the motivation problem is a woman who had a child die of AIDS. She had not known at the time that the cause of the death was AIDS, because it occurred early in the epidemic. We talked with her while she was in

the hospital with an infection in her leg caused by injecting heroin into a vein. We spoke to her for quite a while, discussing the numerous consequences of her substance abuse, including her husband's time in the penitentiary, the loss of money, and the loss of her child. We asked, "What else has to happen before you seek treatment?" She said, "What I really need is Valium. If I get Valium I wouldn't use heroin as much."

We saw that the motivation wasn't there. Still, we can never tell what impact talking with a person will have a few months later on. We all have had the experience of seeing someone in a treatment program whom we never expected to see there. The answer to the question we posed to this woman, "What else has to happen to you?" came when she was diagnosed with AIDS. That was the bottom she had to hit before she would go into drug abuse treatment.

It was very painful to hear this woman's refusal to enter treatment. I felt like shaking her at the time—the usual feeling that comes up in people—but I knew from experience that it would do no good. We must realize that the majority of substance abusers will not seek treatment.

Often it is the partner or lover of an AIDS patient who has the substance abuse problem. It is common to see cases where the AIDS patient is not dealing with his own addiction but with that of the person he is involved with. An example was a gay man in a hospice program who designated his lover as his primary care giver. The other man and the hospice staff made an arrangement whereby he would cook dinner and provide other services for the AIDS patient and the hospice would provide other kinds of attendant care. It turned out that the man not only failed to do the things he had contracted to do, he would also beat up the AIDS patient while intoxicated.

The AIDS patient covered up and made excuses for his lover's behavior—"He's had a hard time because of my AIDS. . . He's afraid I might die on him . . .", etc. The AIDS patient had built a tremendous denial system around his lover, and to get the kind of care he needed he would have to give up some of that denial. Otherwise, the consequences would be going hungry at night and suffering physical abuse. We could not interfere with his home life; all we could do was point out the consequences of his continuing to avoid confronting his lover about his alcoholism. But this patient chose to avoid confrontation because of factors associated with co-dependency—especially his fear of abandonment.

So we say to professionals who are trying to confront people with the dual problems of AIDS and substance abuse: Treat the denial around AIDS with love and caring, but confront the denial over substance abuse with a sledge hammer—only be sure to wrap the sledge hammer in a cloth of humor, love, and concern.

**Question and Answer Session
on Ms. Faltz's and Mr. Madover's Paper**

Question: Could you comment on the quality of life in people with AIDS who do get substance abuse treatment?

Ms. Faltz: We have seen several instances of improvement. There are several Alcoholics Anonymous groups in San Francisco with an AIDS focus that meet every week, providing people in the fellowship some peace of mind around the issue of AIDS. There are many people with AIDS who seek treatment for substance abuse and have a quality recovery even though they have this life threatening illness.

ALCOHOL ABUSE, SUICIDAL BEHAVIOR, AND AIDS

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This morning we heard from a distinguished panel of experts much of what is currently known about the epidemiologic, clinical, and behavioral aspects of AIDS as it interfaces with chemical dependency problems. I would like to limit my remarks this afternoon to clinical issues and the assessment and management of self-destructive behavior in patients who are abusing alcohol or other drugs in the setting of the AIDS crisis. I think the following brief case report illustrates many of the typical and not-so-typical aspects of such behavior.

A 42-year-old homosexual businessman entered the alcoholism treatment unit with a 10-year history of alcohol use characterized by daily intake, increased tolerance, withdrawal signs and symptoms, and secondary psychosocial problems. A 6-to-8-month history of social isolation, lethargy, guilty rumination, and depressed mood was superimposed on a lifelong proclivity towards depressed mood and suicidal ideation that included several unsuccessful attempts at suicide by overdose in the past. A strong family history of alcoholism was noted.

Eighteen months before his admission, he began deliberately seeking out partners known to have AIDS in an attempt to acquire the disease. Alcohol was seen by the patient as a means of reducing anxiety and distancing himself from his actions. After a thorough medical evaluation, a diagnosis of AIDS-related complex was made. Although his initial response to the diagnosis was a sense of anxiety and depressed mood, he continued to be active in the inpatient rehabilitation program.

At the time of discharge, 6 weeks after admission, he reported less anxiety and depressed mood and denied overt suicidal ideation. His medical course has remained stable and he has acknowledged significant changes in his sexual practices.

Overt suicidal ideation re-emerged when he was rejected by an acquaintance who learned of his diagnosis. The patient acknowledged that he had never fully dealt with the diagnosis of ARC. Rehospitalization was avoided through crisis-oriented supportive psychotherapy. Thirteen months after discharge he remains abstinent and active in Alcoholics Anonymous and in an organization devoted to helping individuals affected by AIDS. In addition, an outpatient therapy group of recovering chemically dependent individuals with various medical problems has helped him deal with his diagnosis of ARC.

Suicidal behavior, whether in gestures, serious attempts, or completed suicide represents the most dramatic form of self-destructive behavior and underscores the pervasive impact of hopelessness on an individual. The nature of this behavior varies, however, and may be expressed either directly or indirectly in subtle and possibly bizarre forms. Such behavior may escape the eye of even the most skilled mental health professional, with potentially disastrous effects.

The case I described was one of three such cases we have seen in the past year. In all three cases, alcohol dependent individuals admitted to the same alcohol treatment program had actively sought to acquire AIDS as a means of committing suicide. Previous overt suicidal attempts were noted in two of these individuals, as well as acknowledgement of longstanding conflicts regarding sexual identity, social isolation, and a fantasized sense of relief with exoneration of guilt. Serious maladaptive family dynamics were noted in each of the cases, and a strong family history of alcoholism was present in two of the three cases. Interestingly, all three men reported an increase in alcohol consumption after learning about AIDS in 1981.

Although the significance of these observations needs to be substantiated by a larger controlled prospective study, anecdotal evidence exists that such indirect expressions of suicidal intent may be more common than we have realized. A similar phenomenon occurred in epidemics of communicable disease in the past, for example, polio, syphilis, and tuberculosis. One authority has noted that seeking another person to be an executioner is suggestive of a love-suicide fantasy. Such behavior may or may not be associated with alcohol use or abuse, but in each of the three cases I have described, alcohol allowed the patient to distance himself from his actions and experience subjective relief of his anxiety.

Alcoholism, other drug dependencies, and other environmental risk factors such as social isolation and prejudice may predispose an individual to greater risk. It has been estimated, for example, that 15 percent of patients with alcoholism and 15 percent of those with major depression ultimately commit suicide, compared with 1 percent of the general population. Of all the risk factors, the two major ones that have been directly correlated with the seriousness of the suicide attempt are interpersonal loss and hopelessness. Direct expression of the suicide attempt may be dramatic and devastating.

In the first 10 months of 1985 the press reported seven AIDS-related suicides in the metropolitan area where I live. Five of those seven individuals committed suicide by jumping from a high window. In two instances, a double suicide was reported, and one of those cases was a gay male couple where just one of the individuals had only a positive HIV antibody test; he did not have AIDS, nor did he have ARC, and the other partner was negative for the antibody. But they committed suicide together. Generally, the suicide attempts have been made after a diagnosis of AIDS has been established.

Additional cases may well exist, considering the forensic difficulty in establishing suicide as the cause of death. A study from the Sloan-Kettering medical center found that suicidal ideation appears to be common among AIDS patients, although attempts were not found to be prevalent. Such attempts are more common in individuals with a borderline type of personality organization.

Other forms of self-destructive behavior exist in relation to substance abuse disorders. For example, in the setting of the well-publicized public health crisis of AIDS, the ritual sharing of needles among intravenous drug abusers may represent suicidal intent, either consciously or unconsciously. The disinhibition phenomenon also needs to be emphasized. Several investigators have noted that, given the AIDS crisis, the compulsive use of alcohol in high-risk groups to facilitate intimacy is a serious public health concern, because individuals not inclined to high-risk behavior while sober may engage in such behavior while drinking.

Studies assessing alcoholism among homosexual men are severely restricted methodologically, making their results inclusive or unreliable. The assessment of an at-risk individual's potential for self-destructive behavior may be very complex in the setting of a public health crisis such as the AIDS epidemic. It requires a

thorough understanding of potential risk factors, sensitivity to familial and social dynamics, the ability to identify accurately coexistent psychiatric or substance abuse disorders in an AIDS patient or a person at risk, and the ability to identify and deal with one's own reactions, not only toward death but also to issues of countertransference.

In at-risk patients who may suffer from substance abuse disorders, the interrelationship between substance abuse, underlying identity conflicts, and AIDS poses a challenge to individuals or teams of individuals working in the substance abuse treatment setting. Denial, either on the part of the caregiver or the patient, is frequently found in dealing with substance abuse disorders or sexual identity conflicts, or in working with terminally ill patients, and it can interfere with the identification, evaluation, and management of such patients.

Directly affecting the substance abuse problem, either on an outpatient or inpatient basis, must be the number one priority before other therapeutic work can proceed. In the case of AIDS, both patients and staff may go through a process of grieving, as described by Dr. Smith in his presentation a while ago—the progression through denial, anger, depression, partial acceptance, assumption of a new identity incorporating the altered self, and, finally, reaching out to assist others. As illustrated in the case report I presented earlier, that process can be a protracted one.

Education for staff and direct addressing of the countertransference issues is necessary for the acquisition of skills needed to provide empathic and effective care and being able to identify patients at risk of self-destructive behavior.

Family members and significant others also require help in dealing with the news that a son or daughter has AIDS. Frequently, when this diagnosis is made, they learn of lifestyle matters that were previously unknown to them. Family therapy or support groups, with or without individual counseling, can help families work through the various stages of grieving and become supportive of the patient. Family defensive systems may parallel those of the individual patient, just as staff defensive systems may parallel those of the individual and the family.

Education of high-risk groups and early diagnosis and treatment of substance abuse and depression may reduce the spread of AIDS and improve the quality of life for its victims. Recognition of individuals at risk of suicide can lead to interventions aimed at

helping them use more mature defenses and be involved in the treatment of continuing problems. Support groups and Twelve-Step programs help provide a support network for both patients and families. Discussion of issues surrounding ambiguities of disease course and HIV antibody testing with patients and their significant others is of paramount importance. Alternatives to risk-taking behavior must also be offered to patients.

Finally, an assessment of an at-risk individual's psychiatric status and potential for self harm, whether or not the diagnosis of AIDS has been made, must include consideration of the organic effects of the virus on the central nervous system. Recent evidence suggests that the virus can replicate within individual neurons to produce, at least in the early stages, very subtle cognitive changes which may progress to frank dementia.

Signs and symptoms including lethargy, apathy and withdrawal, and depressed mood in a previously well-adjusted individual can actually precede the development of AIDS and can be confused with depression, other psychiatric disorders, or symptoms seen in substance abuse disorders. Increased sensitivity to alcohol or other drugs may also be seen, and such patients may be prone to more self-destructive behavior. The presence of organic changes, however, does not preclude in any way the ongoing supportive therapeutic work with both patient and family.

In conclusion, while basic and clinical research continues on the biologic aspects of AIDS, high priority needs to be given to cofactors in the spread of this disease such as the disinhibiting effects of alcohol and drugs. Also, more study is needed on the evolution, progression, and spread of AIDS in relation to substance abuse and addiction and associated psychiatric illness in a variety of high-risk populations. Development and use of standardized research interviews will help in comparing different studies. Also needed are studies to determine the most effective approaches for education, prevention, early detection, and treatment. Finally, chemical dependency programs need to be alerted to the fears and problems their own staffs may encounter in meeting the challenge of providing early diagnosis, treatment, and followup of patients with these problems.

Question and Answer Session on Dr. Flavin's Paper

Member of the audience: I just wanted to mention that we had two suicides in our AIDS study in Chicago. Both were substance abusers.

Dr. Flavin: I think this whole problem is quite honestly being underemphasized, and that the forensic difficulties I mentioned often cause us to underestimate the exact incidence of suicide. It is especially important for us as caregivers to realize that there are very indirect ways for people to be self-destructive, and that if we don't actively try to assess that potential in an individual, we will miss it. After I became aware of those three cases in our clinic, I began incorporating that assessment with every high-risk patient I saw, and I have been finding more cases of people who acknowledge that these thoughts have at least crossed their minds, even though they may not have acted on them.

Question: I know of an AIDS patient in my part of the country who decided to commit suicide, told a friend about it, and then did so. How would you handle an AIDS victim who, knowing the prognosis, decided not to endure the disease and to take his own life?

Dr. Flavin: In approaching such an individual, I would need to recognize any potential countertransference problem at the outset and realize that this would make it more difficult for me to deal with that patient. I would subsequently work with other caregivers in a team approach. Things that need to be considered in a team approach include trying to mobilize significant others, including family members, loved ones, a lover, friends, support people from groups like Alcoholics Anonymous if the patient had an alcohol or chemical dependency problem. I think the team should work with those individuals to try to get them into crisis intervention counseling.

What we have to realize ultimately, is that as psychiatrists, social workers, or whatever, we can only do so much. There are going to be people who will commit suicide no matter what we do. This is very difficult to deal with, but it does happen. So, we should be very aggressive, and, keeping in mind countertransference issues and our own limitations, mobilize all our resources and emphasize a team approach. But we must also realize that in the end it may not work.

I'd like to comment on a question that was asked of Ms. Faltz a little while ago—whether people with AIDS who get substance abuse treatment improve the quality of their lives. Two of the three patients I mentioned in my presentation are doing very well, and both of them credit Alcoholics Anonymous for their recovery—for being the major factor in helping them reorganize their lives. But this is anecdotal, and it would really be interesting to address that ques-

tion in a randomized prospective study examining AA and other factors that may help people in this situation, then apply that knowledge to treatment. I'm sure AA is a major factor.

CONCLUSION

In the final minutes of the symposium, during a brief discussion period, three members of the audience made the following comments, which provided a fitting conclusion to the day's proceedings:

First member: I would urge treatment people all over the country to help set up AIDS-focused Alcoholics Anonymous groups in their communities. Over the past year and a half, I have heard repeatedly that such groups are salvation for those who receive the diagnosis of AIDS. It's the one thing that gives them the strength to see the whole ordeal through, and it provides them with a basis for some quality of life for the rest of their lives.

Second member: I think it's important also to acknowledge that a diagnosis of AIDS can be a major stressor leading to relapse in someone who is recovering from substance abuse. My personal experience suggests that this happens frequently. I know of about 50 people, including two roommates, who had recovered, had gotten sober, then received a diagnosis of AIDS and went into relapse. It's vital that we recognize how a diagnosis of AIDS can easily bring about a relapse, and that we bring this knowledge about the connection between AIDS and substance abuse to people.

Third member: I want to put an exclamation mark on that. I am aware of at least two people in that category. They were clean and sober, then found out they were positive for HIV and relapsed. When they tried to get back into their treatment program, however, they were refused admission, because now they were infected with the virus. The substance abuse facility couldn't deal with that issue, and the reason they couldn't is because of the irrational fears we have been talking about all day. That's why it is so important for us as alcoholism professionals to learn about this disease. We need to be able to deal with it so we can help our patients.

Said Dr. MacGregor, the chairman of the final session, "That is a good note to end on." The meeting was adjourned.

Dk: 19G

NOTES