Current Report – HIV
1989 International Conference on AIDS – Montreal

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As suggested by its theme, "AIDS: The Scientific and Social Challenge," this year's conference in Montreal featured many presentations of great interest for family physicians. Principal themes included improved treatment of opportunistic infections, new approaches to intravenous drug use, and some promising advances in the development of antiviral agents and vaccines. Bridging the scientific and social topics were a number of provocative presentations on medical practice, health care delivery systems, HIV infection in adolescents and minority communities, and the problems faced by developing countries and by poor communities in developed countries. Patient and provider frustration about the length of time to test new drugs in clinical trials emerged as a frequent reminder of the urgency of the problem of HIV disease.

Epidemiology: Good News and Bad News

The decrease in the new HIV seroconversions and the significant fall in the rate of increase of new AIDS cases were encouraging notes. However, the high rate of HIV seropositivity among the growing core group of intravenous drug users and their sexual partners was viewed as alarming.[1] The association of the sex-for-drugs phenomenon prevalent in poor communities (in part because of the widespread use of crack cocaine) was highlighted, with blacks and Hispanics having 10 times greater increase in heterosexual transmission than other population groups. Some speakers pointed out the devastating effects that drug use was having on minority communities. Most speakers, however, discussed drug use in the context of the threat to heterosexual spread of HIV throughout the general population.

Community support for programs directed against drug use is growing, but competition for limited funds threatens other much needed public health programs.[2] Concern was expressed about the potential destruction of the public health system that provides a wide range of health care to populations at greatest risk.[1-3]

Reducing Spread from Intravenous Drug Use

Efforts to investigate ways of curtailing the spread of HIV through intravenous drug use were reported. Preliminary data from the extensive experience with needle exchange programs in Amsterdam[4] and London[5] and the minimal experience in Tacoma, WA,[6] indicated that needle exchange programs alone seem to be marginally helpful. However, some speakers reported a decrease in the sharing of "works," an increase in the number of persons entering drug detoxification programs, and even a decrease in cases of hepatitis B when needle exchange was combined with counselling programs. Methadone and outreach programs, as well as the use of bleach to sterilize "works," may help in curtailing HIV spread.[7] Needle sharing creates strong social ties among intravenous drug users, which in itself inhibits major behavioral change.[8-9] Continued high levels of unprotected sexual contact, especially between intravenous drug users and prostitutes with their personal (noncommercial) sexual partners,[10] was documented.

Adolescents and HIV Transmission

Education programs for adolescents increase their HIV knowledge base but only produce modest changes in actual sexual behavior. Misconceptions, such as the belief that nonbarrier birth control provides protection against AIDS, and the perception that one can tell if a sexual partner is infected, are partly responsible for the continued high degree of unprotected sexual activity among adolescents.[11] One program reported substantial inroads against risk behavior by using role playing experiences in combination with educational sessions.[12] Adolescents practiced how to decline drug and sexual overtures and also engaged in a simulated purchase of condoms from a (hostile) pharmacist. Another study

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showed that only 13 percent of adolescents who had seen a physician in the previous year (for any reason) reported that their physician counselled them about HIV.[13]

Drug Therapy

Guarded optimism was expressed about antiviral therapy and vaccines.[14] Zidovudine has proved to be an effective drug, although clinical failures occur at an increased rate in the second and third years of treatment.[15-16] One expert recommended that zidovudine be given to all patients with *symptomatic* HIV infection regardless of their CD4 lymphocyte counts.[15] Studies will become available this year with data to help clinicians decide when to initiate the drug and the least toxic but effective dose. Toxic effects on muscle (especially after 1 year of use) are more common than previously appreciated. The use of zidovudine was believed to be responsible for some of the improved survival among AIDS patients over the past 3 years. Analogs of zidovudine and other experimental agents remain under investigation, but the findings are promising. Preliminary studies show that vaccines may have adjuvant roles in the future.[17-18]

The efficacy of ganciclovir for cytomegalovirus retinitis and enteritis, fluconazole and itraconazole for fungal infections, foscarnet for cytomegalovirus retinitis and acyclovir-resistant herpes infections, and the use of prophylaxis against *Pneumocystis carinii* pneumonia (PCP) were highlighted as other reasons for improved survival.[19]

A major topic of clinical sessions was advances in the therapy of pulmonary disease. Primary and secondary prophylaxis against PCP[20] were discussed. There was considerable debate but no agreement about the best dosage, frequency, and inhalation apparatus for aerosolized pentamidine.[21-22] The Food and Drug Administration independently approved a dose of 300 mg once monthly via Respigard II™ nebulizer 2 weeks after the conference. Data showing apparent efficacy of dapsone, both for primary and secondary prophylaxis were presented.[23-24] Changing patterns of *P. carinii* infection, such as recurrences in upper lobes, pulmonary mass lesions, and disseminated infection, and possibly pneumothorax, are all being seen more frequently, mostly in patients receiving aerosolized pentamidine.[25] Promising data on the use of clindamycin with primaquine for acute PCP was presented.[26-27] This therapy has been reported in recent journals as well.[28] One study claimed that corticosteroids prevented respiratory failure in PCP,[29] but the study design and results did not support the conclusion. Other studies have not shown corticosteroids to be effective, and because of their potential adverse side effects, their routine use was not recommended. Isoniazid chemoprophylaxis against tuberculosis in patients with positive tuberculin skin tests was effective in preventing acute tuberculosis.[30] Two studies reported that more than 40 percent of patients receiving intensive care for pulmonary disease left the hospital alive,[31-32] a finding in marked contrast to the 13 percent survival in prior studies. The reasons for improved survival were not apparent from the studies.

Systematic Health Care Needs

Finally, the delivery of health care was the topic of numerous presentations. Although physicians have stated that counselling patients about HIV is important, survey data have shown that few patients actually discussed AIDS with their physician (15 percent in one study,[33] 3 percent in another[34]) and that these discussions were most likely to be initiated by the patient.[33] Care for patients with HIV infection ideally includes: ample support services (counselling, social services, and hospice); integrated outpatient and inpatient care; and coordination with local and regional clinical trials.[35-36] A visiting nurse program can provide outstanding and inexpensive home care including monitoring of oxygen therapy, intermittent administration of intravenous drugs, and support to caregivers.[37] Reports from health maintenance organizations showed that careful planning improved their response to current and future case loads, allowed more effective distribution of patients among primary and specialty providers, identified problems for employee education, promoted HIV prevention services, and increased outpatient services and case management. The resulting cost containment ($21,000 annual cost of care for clinically ill AIDS patients in one study) and improved quality of care were significant.[38] In stark contrast were the concerns expressed by representatives of the

many developing countries where even antibody testing of bank blood is economically infeasible.[39-40]

Implicit and explicit in many of the presentations was the need for primary care. The many losses that AIDS patients endure (money, employment, neurologic abilities, bowel control, weight, relationships, and friends) were highlighted by a general practitioner from Canada who called this virus a "taker" from patients, families, and physicians.[41] Comprehensive HIV care includes prevention, education, counselling and testing, and management of asymptomatic and clinically ill HIV-positive patients. Physicians were charged with the responsibilities of being medical provider; selector of consultants; scientist (trying different therapies, inquiring about pathophysiology, collaborating with clinical trials, etc.); student ("to know HIV disease is to know medicine"); advisor (weighing options); arranger of ancillary services; patient advocate; counsellor; and community organizer.

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