

MEDICAL IMPLICATIONS OF LIBERALIZING CF HOMOSEXUAL POLICY

PART I - INTRODUCTION

BACKGROUND

1. Homosexuality, "a preference for sexual relations, either partially or exclusively, with members of one's own sex" (1) is not a medical issue. Medical sequelae of homosexuality can occur, however, as a result of the involved sexual practices, the psychic discomfort of some homosexuals regarding their sexual orientation and the prevailing negative societal attitude toward homosexuality.

2. Homosexuality is rather common in western society. Prevalence data were cited in Kinsey's reports of 1948 and 1953 (1, 2, 3) and subsequent studies indicate that homosexuality has likely not increased in prevalence since then, but has increased in visibility. It is estimated that 10 percent of the male population and five percent of females is more or less exclusively homosexual for at least three years between the ages of 16 and 55.

3. The prevalence of homosexuality in the CF is unknown and likely could never be accurately determined. The average of 18.6 males and 17.2 females released annually between 1981-85 under CFAO 19-20 surely underestimates the true extent of this sexual orientation in the CF. While the CF may not reflect the prevalence in the general Canadian population because of the overt antihomosexual stance of the CF, the number of homosexuals is likely "substantial".

4. Even if the administrative barriers against homosexual enrolment and retention are lifted, it is not likely that a "flood" of homosexual applicants or self-identification of serving homosexuals will occur. Negative attitudes toward homosexual orientation among CF members will likely be very slow to change.

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5. This report addresses the major medical implications foreseen in liberalizing the CF policy concerning homosexuals.

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## PART II - DISCUSSION

### CAVEATS

6. No hard data is available regarding some key aspects such as: the current prevalence of homosexuality in the CF; the number of homosexuals that may be enrolled should an open policy be adopted; the risk factors for those homosexuals who would be recruited as to lifestyle factors (e.g., number of sexual contacts, sexual practices, stable relationships, recreational drug use); and the actual incidence of certain medical conditions among homosexuals (e.g. gonorrhea, acute depression). It therefore is not possible to estimate the number of cases of a particular disease that could be expected if a specific number of homosexuals were enrolled and what the precise manpower, training or financial implications would be of such enrolment. Only general trends and issues are addressed here.

7. It is assumed that the same enrolment medical criteria (physical and psychological) would apply to homosexual as to heterosexual recruits. Further, it is assumed that the CF would not develop a recruiting policy to enrol homosexuals out of proportion to heterosexuals. Finally, there is no method of identifying a homosexual except by self proclamation.

### GENERAL CONSIDERATIONS

8. Education. An educational program may be desirable for homosexual members, especially homosexual males. The content would address the potential health problems associated with the homosexual lifestyle; the need for seeking medical care early for certain problems; the need for preventive medical encounters; and the need to practice "safe sex", especially in light of the AIDS threat. Further, health care personnel may legitimately need education regarding the delivery of health care to homosexuals.

9. Confidentiality. Maintaining the required level of confidentiality of medical records is always vital. Despite an open policy, homophobic attitudes will be slow to change. Therefore the knowledge of homosexual behaviour may still be a tantalizing piece of the medical record. With increasing numbers of identified homosexuals, confidentiality may be more difficult to preserve.

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10. Psychiatry. Homosexuality per se is not considered to be a psychiatric illness. Further, therapeutic attempts to reorient the sexual orientation of homosexuals are not felt to be worthwhile. There is no compelling evidence that homosexuality is associated with an increased incidence of psychiatric illness. The major increase in CFMS psychiatric workload under an open policy would be in sorting out administrative problems resulting from the social stresses on unit personnel and dealing with the medical expressions of those stresses.

11. Alcohol Abuse. It is recognized that homosexuals in general, and females in particular, are at higher risk of alcoholism than heterosexuals (4). This elevated risk is related to the pressures of living in a homophobic society; the trend toward 'gay bars' as a place to socialize, and the disinhibiting and anti-anxiety effects of alcohol. The therapy of homosexual alcohol abuse may not be substantially different than for heterosexuals and is likely no more or less successful.

#### SEXUALLY TRANSMITTED DISEASES

12. General.

- a. Homosexual males (HMs) are recognized as being at increased risk when compared to heterosexual males for a number of infectious diseases which can be transmitted through sexual means (eg. 5, 6). These diseases include many of the "classical" sexually transmitted diseases (STDs), eg. syphilis, as well as several bloodborne agents, eg. the hepatitis B (HB) virus and human immunodeficiency virus (HIV, the cause of the Acquired Immune Deficiency Syndrome, ie. AIDS), and intestinal agents, eg. amoebae and salmonellae. Many of these diseases pose no problem for fellow members (other than to sexual partners and health care providers) and would usually not interfere with CF duty, except during the acute episode. The risk for these diseases is not uniform among HMs but varies by, for example, sexual practices (anal intercourse carries a particularly high risk), number of sexual partners, number of anonymous sexual partners, the exchange of body fluid and the failure to use a condom;

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- b. Overall, under an open policy, the CF could notice an increase in certain STDs. The magnitude of any increase in these infectious diseases will depend on the nature (and number) of HMs recruited. For example, monogamous HMs will likely present little problem, while highly promiscuous individuals may constitute a larger problem. There is evidence, mainly from the USA, that HM sexual practices are moderating/changing in the wake of the HIV epidemic. There have been noticeable decreases in the number of cases of hepatitis B (HB)(7), syphilis (8) and gonorrhea (8) infections associated with male homosexual behaviour. While HMs remain at high risk for HIV infection and comprise the largest pool of HIV infected persons in North America, the proportion of newly reported AIDS cases ascribed to male homosexual behaviour is decreasing and the number of new infections among HMs appears to be decreasing, ie. the HIV epidemic seems to be plateauing among HMs (9). There have been similar trends reported in Canada, at least for syphilis (10), and rectal gonorrhea. There are also studies, again mainly from the USA (11), indicating that self-reported HM sexual practices are changing in the direction of increasing safety, eg. fewer sex partners, more condom usage, and less anal sex; and
- c. Homosexual females are at less risk of STDs than either HMs or heterosexuals (3, 12). This is due to the fact that their relationships are typically monogamous and also to the absence of the heterosexual mechanisms of transmission.

13. General Preventive Considerations.

- a. STD Control. STD control in the HM civilian community has proven difficult because of the multiplicity of sexual contact, the anonymity of such contact, the fear of revealing information by homosexuals in a homophobic bureaucracy, and the often asymptomatic infectious states. There is no reason to suspect that control in the CF will be any easier. However, with the seeming moderation of HM sexual behaviour mentioned in para 12b above and with a "neutral (tolerant) climate" toward homosexuals in the CF, this problem might be lessened;

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- b. Blood Supply. In wartime, a walking donor pool may need to be used to meet transfusion requirements. Testing of these donations for syphilis, HB, and HIV infection, as is the standard peacetime practice, may not be operationally possible. In this light, it may be necessary to reassess the need for a routine/compulsory HIV blood testing program under an open HM policy. Such a testing program would lower, but not eliminate the risk of HIV transmission from unscreened transfusion. However, it is now possible to test blood for HIV "in the field" and these testing kits should likely be used for all transfusions of blood which has not been screened to the peacetime standard. With such "field testing", the need for a routine HIV testing program, if driven by transfusion concerns, may be lessened. It is also standard peacetime practice to ask those persons, who have any of a number of explicit criteria, not to donate (without having to state which criteria applies to them). Among these criteria is "any male who has had sexual relations with another male since 1977". It would be important, regardless of whether there is a routine HIV testing program and particularly for unscreened/battlefield transfusion, to apply the same exclusion criteria. A "neutral climate" toward HMs in the CF might actually increase the safety of the blood supply since HMs might feel more at ease in deferring themselves for donation. The number of potential blood donors who would be unavailable for battlefield/unscreened transfusion will relate directly to the number of HMs who are enrolled; and
- c. Risk of Disease Transmission in First Aid/Health Care Delivery. Persons who are infected with HB and/or HIV, whether HM or not, pose some risk of disease transmission to those who are exposed to their blood while providing first aid and/or health care to these persons. The transmission risk is greater for HB than for HIV (estimated at perhaps 1/3 to 1/20 for HB and 1/200 for HIV after a single needle stick injury exposure to known HB or HIV infected blood; considerably less than

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1/200 for exposure of broken skin to HIV infected blood; and nil for exposure of intact skin to HB or HIV) but HIV is a more important infection to the recipient, since it is likely universally fatal in the fullness of time. Under an open policy in peacetime, CF health care workers (HCWs) (and perhaps, but to a lesser degree, public safety workers, eg. firefighters, police) could be at some increased risk of HB or HIV from first aid/health care contact with the increased reservoir of HB/HIV among HMs enrolled under an open policy. However, this risk would never exceed the risk that civilian HCWs/public safety workers are exposed to. Further, this first aid/health care risk can be minimized by the use of the currently accepted "universal precautions" (the use in all patients, regardless of sexual orientation or presenting disease, of appropriate barrier techniques, eg. gloves, when potentially exposed to blood) and by the administration of HB vaccine to suitable HCWs. Even under the current closed HM policy, HB vaccination of CF HCWs is already mandated for certain HCWs, eg. dental personnel, and will likely be expanded, as funds become available, to include all clinical HCWs (and eventually even public safety workers). On the battlefield, it may not always be possible to closely follow "universal precautions" for first aid/health care and the overall risk of HB and/or HIV transmission will be enhanced even under a closed policy but more so if an open policy results in a larger pool of infected persons. This risk could be significantly lessened by considering a routine HB and, more critically, HIV testing program (with prohibition of positives, regardless of sexual orientation, from the battlefield) and the wider use of HB vaccine (and an HIV vaccine when/if one becomes available). There is no data to define the risk of HIV transmission from first aid/health care on the battlefield. The closest approximation is from modelling done on needlestick injuries as in Table 1. Using the same methodology as in Table 1, if 10% of the CF were HMs, and if, overall, 20% of HMs are infected with HIV, then 2% of the CF would be infected with HIV. If the risk of transmission

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of HIV from a single HIV infected needle stick is 1%, then the risk of HIV transmission from a single random needlestick (ie. where it is not known if the blood is HIV infected or not) is 0.02% (ie. 2/10,000) and the risk after 10 needlesticks is 0.2% (ie. 2/1,000). Of course, we do not know, under an open policy, what percentage of the CF will be HMs and of those what the frequency of HIV infection would be. Obviously, the perception of whether this level of risk (eg. 2/1,000) is "low" or not will vary, but might be viewed by some as "low" in comparison to other much higher risks on the battlefield. DPM is unaware of any documented occupational transmission of HIV to emergency responders, eg. emergency medical technicians, even though there is significant potential for blood exposure under less than ideal conditions, eg. at a multiple victim car crash.

14. Disease-specific Considerations.

a. Hepatitis B (HB).

(1) This viral infection of the liver is easily transmitted by sexual intercourse (among other methods). HMs are at very high risk of acquiring HB. One relatively recent Canadian study (from Vancouver)(13) indicated that at least 70% of studied HMs had evidence of previous infection with HB and at least 8% were chronically infected with the virus (it is only these latter persons, eg. the 8%, who are infectious to others, eg. through sex, blood exposure)(vs. 3-5% and 0.3% respectively in the general adult population). However, it must be mentioned that this study group may not be representative of other HM groups in Canada and may actually be expected to present the highest prevalence data among these groups. As mentioned in para 12b above, there is evidence (in the USA) that the frequency of HB among HMs is decreasing;

(2) An effective vaccine to prevent HB has been available since 1982 and HMs are one of the highest priority groups for receipt of this vaccine. While the vaccine is still costly,

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about \$80 per person, market forces are driving the price down (it was \$130 per person in 1986). One can anticipate, under an open policy, that an aggressive (although likely voluntary) HB vaccination program directed at HM members will be proposed. It should be noted that, at a certain vaccine price level (and this may come in the next few years), it is likely that the CF would consider immunizing all its members regardless of sexual orientation; and

- (3) Persons with HB infection, whether HM or not, pose a significant risk to health care workers (HCWs) exposed to their blood. Under an open policy, CF HCWs could be at increased risk of HB from health care contact with the increased reservoir of HB virus among HMs enrolled under an open policy. However, this health care risk can be minimized by the use of the currently accepted "universal precautions" (the use in all patients, regardless of sexual orientation or presenting disease, of appropriate barrier technique, eg. gloves, when potentially exposed to blood) and by the administration of HB vaccine to suitable health care workers. Even under the current closed HM policy, HB vaccination of CF HCWs is already mandated for certain HCWs, eg. dental personnel, and will likely be expanded, as funds become available, to include all clinical HCWs; and

b. Acquired Immune Deficiency Syndrome (AIDS)

- (1) This infection has received much media, political, social, and scientific attention. The causative viral agent is the Human Immunodeficiency Virus (HIV). Infection with HIV has a wide clinical spectrum from apparently healthy (the bulk of infections) to the fatal AIDS. HIV is transmitted through sexual contact (homosexual or heterosexual), sharing of blood (eg. needle drug addicts), and from mother to child at around the time of birth. There is no evidence for casual transmission and HIV infected persons pose no

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risk of HIV transmission to fellow members other than through sex, needle sharing or health care delivery. There is no available preventive vaccine or cure for infection. Prevention relies solely on avoiding high risk behaviour, eg. limiting the number of sex partners, and using a condom. HMs are the largest numerical and one of the highest risk groups for HIV infection (81% of all AIDS cases reported in Canada are HMs), although as mentioned in para 12b above the HIV epidemic among HMs, at least in the USA, appears to be slowing presumably as risk behaviour is modified. There is very little Canadian data to address the magnitude of penetration of HIV into the HM community. The largest Canadian study of the matter (14, 15) indicated that, at least among studied HMs in Vancouver, 34% were infected with HIV on entry into the study in about 1983. Since then there has been a rate of new infection of 19% over an average follow-up period of 27 months. As mentioned in para 14a(1), this HM group might be expected to present the highest prevalence/incidence data among HM groups in Canada and hence should not be taken as necessarily representative of other HM groups;

- (2) A blood test is available to detect antibodies produced by the body in response to HIV infection. A positive test in an asymptomatic person means previous infection has occurred but does not discern if the patient is infectious to others, whether a clinical illness will develop or how (or when) the infection was acquired. It is becoming increasingly evident that HIV testing can provide medical benefit to those found to be positive (ie. infected): they can be counselled to prevent further transmission; they can avoid exposure that might be harmful given their HIV infection (eg. live virus vaccines); they can be followed closely to detect HIV associated illness at an earlier and presumably more amenable stage; and, as is becoming more common, they can be offered, when appropriate, drugs (eg. AZT) which may

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prolong their life expectancy. At this time, all HIV testing in the CF is on a voluntary basis. An open policy would likely stimulate the CF to reassess its position regarding routine compulsory HIV blood testing to detect HIV infected persons, although it is not entirely clear that a compulsory program would be advocated, eg. the compulsory program would not be consistent with current government policy; and such a program may not be necessary, if, under a "neutral climate" toward HMs in the CF, HMs felt comfortable in coming forward for voluntary HIV testing; and

- (3) The CF can expect some increase in HIV infected members under an open policy, with or without a compulsory testing program. Each case will accrue a substantial medical care cost, estimated at \$80K (16) per AIDS case. While economic arguments probably carry little influence with the Human Rights Commission, from the CF's perspective, provided those applicants found to be HIV infected were not enrolled under a compulsory HIV testing program for recruits, the CF would avoid some future medical care costs associated with HIV infections (and save training investment in persons who will very likely develop clinical illness in the next several years). A similar cost avoidance argument cannot be made for serving members, since it is unlikely that the CF would adopt a policy of compulsory release for all those found to be HIV infected.

### PART III - CONCLUSIONS

15. It is our view that the anticipated problems raised above regarding an open recruiting policy towards homosexuals certainly need to be considered in this policy debate. Most of these problems could be addressed, to a significant degree, by certain maneuvers, eg. a testing program for HB and HIV, without need to exclude an entire group of persons

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(ie. homosexuals). In our view, there are no overriding medical reasons to exclude homosexuals from or include them in the CF, ie. from a strictly medical viewpoint, the CFMS is neutral on this topic.