

The HIV-positive dentist: balancing the rights of the health care worker and the patient

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Abstract

WE DESCRIBE A HYPOTHETICAL CASE OF AN HIV-POSITIVE DENTIST without cognitive impairment who uses proper infection control procedures. The dentist's physician notifies the medical officer of health without the dentist's consent. Although HIV-positive health care workers, including dentists, have been identified in the past, proven HIV transmission to patients is very rare. Most authorities recommend that an HIV-positive health care worker be monitored by an expert panel, which could then, if necessary, refer to the regulatory body to revoke or restrict the person's licence to practice. Mandatory HIV testing is not required for health care workers because they generally do not pose a risk for infecting their patients; they are, however, ethically and legally obligated to report their HIV status to their profession's regulatory body.

[The following is a fictitious case based on experience with similar cases.]

Dr. X is a dentist who has been practising in Ontario for 15 years. He was found to be HIV positive in 1989, and in 1997 treatment with highly active antiretroviral therapy was begun; since then his HIV viral loads have consistently been below the level of detection, and the CD4⁺ lymphocyte count has been moderately low ($295\text{--}330 \times 10^6/\text{L}$). Dr. X had had thrush but never any other HIV-related clinical conditions and specifically never any neurological or cognitive impairment. He has continued to practise dentistry full time and performs fillings, cleanings, bridges, crowns and occasional extractions; he refers complicated extractions to other dentists. He follows appropriate infection control procedures, including masking, use of gloves and goggles, and appropriate disinfection and sterilization of equipment. Although Dr. X does not consent to this disclosure, his physician notifies the local medical officer of health of his identity and condition. In turn, the medical officer of health informs the Royal College of Dental Surgeons of Ontario. The college establishes an expert panel, consisting of a dentist, the treating physician, an infection control physician, an infectious diseases physician and a representative from the college, to monitor the dentist's practice. Unlike the local medical officer of health and the college, the panel is not informed of Dr. X's identity. Dr. X does not initially agree to disclosure to the college because he fears a breach of confidentiality and a loss of his practice. These discussions cause him a great deal of stress.

Risk of transmission

The fundamental tool to investigate potential HIV transmission from a health care worker to patients is a look-back study. To conduct such an investigation, several factors are necessary: the cooperation of the infected health care worker so that the investigators may assess the person's practice, access to patient lists, and availability of HIV isolates from both HIV-positive patients and the health care worker.

There have been a large number of look-back studies involving patients of HIV-positive health care workers,¹ but only 2 showed probable transmission.²⁻⁴ In one review, 22 171 HIV test results for patients were available for 51 of 64 HIV-positive health care workers (29 were dentists or dental students).¹ Only 5 of 113 HIV-positive patients were found to have no identifiable risk factors for HIV infection. HIV isolates were available for 3 of the 5 patients; however, the isolates

Review

Synthèse

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differed from those of their health care workers. The US Centers for Disease Control and Prevention (CDC) concluded that, although there is a risk of transmission from a health care worker to a patient, the risk is small.

In 1990 and 1991 the CDC published details of the possible transmission of HIV from an infected dentist in Florida^{2,5} to 6 former patients, none of whom had other appreciable risk factors for HIV infection.^{6,7} A comparison of HIV strains from the patients and the dentist was highly suggestive that the strains were identical.^{8,9} There was criticism of the CDC's traditional¹⁰ and molecular^{11,12} epidemiologic investigations, but an independent analysis of the molecular data verified the CDC's findings.^{13,14} The infected patients recalled that the dentist wore gloves and a mask during visits, and neither the patients nor the CDC investigators noted evidence of significant breaches of infection control procedures. Patient-to-patient transmission of HIV through infected dental instruments was considered unlikely.¹⁵ Thus, although dentist-to-patient transmission was likely in these cases, the mode of transmission is unknown.

Another investigation indicated that an orthopedic surgeon may have transmitted HIV to a patient.^{3,4} Thirty-three percent of the surgeon's patients were tested for HIV, and one patient was found to be seropositive and had a strain closely related to the surgeon's HIV strain. Several breaches of standard infection control precautions were noted, and the surgeon had frequent percutaneous injuries during procedures. The surgeon was untreated for HIV and developed AIDS within months after ceasing to operate.

The general adoption of universal precautions by the dental community in 1987 is believed to have substantially contributed to the subsequent absence of dentist-to-patient transmission of hepatitis B.¹⁶ In 1993 the CDC published an update on recommended infection control practices for dentistry, which include routine use of gloves and masks, hand washing, and proper cleaning and disinfection or sterilization of equipment.¹⁶

It is not possible to determine the potential risk factors for HIV transmission from infected dentists to their patients on the basis of the aforementioned studies. It is, however, reasonable to assume that important risk factors related to the dentist would include viral load, treatment regimen, stage of the infection and presence of neurological disorders. Similarly, risk factors related to the practice would include compliance with recommended infection control procedures, types of procedures and willingness to inform patients if they are exposed to the dentist's blood.

In the case of Dr. X, the current state of knowledge suggests that he is at low risk of transmitting HIV to patients because he is being treated, he has an undetectable viral load, and he is asymptomatic.

Guidelines

A number of medical bodies have developed guidelines for preventing HIV transmission to patients in the health

care setting. The CDC has emphasized the use of universal precautions.¹⁶ Although it has rejected mandatory HIV testing, the CDC does recommend that health care workers who perform exposure-prone procedures should know their serologic status. It has indicated that an expert review panel should determine whether a health care worker could continue to perform procedures.¹⁷

The Infectious Diseases Society of America has stated that HIV transmission to patients in the health care setting is exceedingly rare and that existing infection control practices should be sufficient.¹⁸ The society does not recommend mandatory testing of health care workers or restrictions of their practices unless there is incompetency.

Recommendations from Hong Kong and Thailand state that infected dentists may continue to practise but should have "regular medical supervision."¹⁹ In the United Kingdom, HIV-positive health care workers are required to stop practising invasive procedures.²⁰

In 1992 Health Canada concluded that mandatory testing of health care workers and disclosure of an infected health care worker's serologic status are not justified. It recommended that health care workers with appropriate risk factors should seek voluntary testing, that patients must be advised to undergo HIV testing following a significant exposure to an infected health care worker and that the health care worker should seek medical evaluation by a primary care physician, who should seek advice on risk assessment for transmission.²¹

In 1996 Health Canada further developed these guidelines and has recommended that any health care worker or student who is infected with a bloodborne pathogen and who performs or will perform exposure-prone procedures be referred to an expert panel.²¹ The task of the panel is to assess whether the health care worker is safe to continue practising exposure-prone procedures. Health Canada has also recommended that all health care workers who perform exposure-prone procedures have an ethical obligation to know their serologic status with respect to bloodborne pathogens, that all health care workers infected with a bloodborne pathogen are ethically obligated to report the fact to their profession's regulatory body and that regulatory bodies should take an active role in overseeing the infected person's practice. The expert panel need not know the identity of the health care worker unless practice modifications are imposed, in which case the person's identity is then communicated to whichever body will be responsible for monitoring or enforcing the modifications. If the health care worker does not comply with the panel's decisions, the case is referred to the regulatory body or local public health department to revoke or restrict the licence. A look-back study should then be done to test the serologic status of the health care worker's patients.²¹

In a manner consistent with the Health Canada guidelines, various Canadian professional associations and regulatory bodies have adopted policies regarding HIV-positive health care workers. For example, the Code of Ethics of the

Canadian Dental Association currently states that “a practitioner should inform the Dental Licensing Authority when an ... infection or other condition has either *immediately affected or may affect over time* [emphasis added] his or her ability to practise safely and competently.”²² However, it states that “a dentist infected by HIV or [hepatitis B virus] who practises current infection control methods does not pose a significant risk of infecting patients.” There is, however, a concern “as to competence once the diseases have progressed.”

Enforcement of guidelines

How are these various guidelines enforced? The dental regulatory authority in each province is the governing body for dentists in the province and has the power to establish standards of practice. In Ontario, for example, the Royal College of Dental Surgeons of Ontario has a policy for HIV-positive dentists: “A practitioner should inform the College ... when a physical or mental disease/condition has affected, or may affect over time, his or her ability to practise safely or competently.”²³ This policy provides for the compulsory establishment of an expert review panel that will provide “counseling, advice and direction to the infected/affected practitioner.” As long as the “practitioner cooperates and complies with the College’s direction, the incapacity provisions [under Ontario’s Regulated Health Professions Act²⁴] would not need to be employed.”²³ The expert panel proceeds with its task without knowing the name of the dentist. However, at the outset of the process, nominal reporting appears to be mandatory, because the college’s policy requires that practitioners inform the college of their HIV status.²³ If the expert panel concludes that the individual dentist is no longer fit to practise, this matter would be reported to the college, and the college, knowing the identity of the dentist, would conduct incapacity proceedings if necessary. If, upon reviewing the matter, the college determines that the dentist is no longer fit to practise, the college may revoke the dentist’s licence or impose restrictions on that licence.²⁴

Difficult legal questions arise if infected health care workers refuse to comply with the requirement to report their status to their regulatory body. In such cases, the treating physician is required by law in most provinces to report the health care worker to the local medical officer of health, who in turn reports the matter to the relevant professional body. For example, in Ontario, physicians are under a statutory duty to report the identity of every person with HIV infection to the local medical officer of health.²⁵ Failure to do so is an offence punishable by a fine of up to \$5000 for every day the offence occurs.²⁶ In turn, the law permits the local medical officer of health to report the identity of an infected health care worker to the relevant disciplinary body.²⁷ Newfoundland and New Brunswick have a similar reporting requirement.²⁸ However, practices differ in other provinces: no other provinces require the

nominal reporting of cases of HIV infection, but Saskatchewan, Manitoba and Nova Scotia require the nominal reporting of all AIDS cases.²⁸ The remaining provinces — British Columbia, Alberta, Quebec and Prince Edward Island — generally require only the non-nominal reporting of AIDS cases.²⁸ Because there is no legal obligation to report the identity of people with HIV infection or AIDS in these 4 provinces, physicians in these provinces would have to rely on other statutory or legal authorities to make a report regarding an HIV-positive health care worker.

In addition to these various reporting requirements, a physician might also be civilly liable in negligence to any third party, such as a patient who becomes infected as a result of treatment from an HIV-positive dentist.²⁹ In a recent decision, the Supreme Court of Canada stated that, where there is a clear and imminent threat of serious bodily harm to an identifiable group, the duty of confidentiality may not apply and the confidential information may be disclosed in order to protect public safety.³⁰ Failure to make this disclosure might result in civil liability to any injured party. However, because occupational transmission from HIV-positive dentists seems to be exceedingly rare, this may not constitute a clear and imminent threat of serious bodily harm.

Against these reporting obligations, the treating physician must weigh the legal and ethical obligations of confidentiality to the patient. Physicians are under a general legal duty to preserve confidentiality, arising out of the physician’s duty of loyalty to the patient, and contractual and civil obligations to the patient. However, Ontario law, for example, provides immunity from liability if the physician has made the report in good faith and in accordance with the law.³¹

Possible legal challenges

In the case of Dr. X, the college’s practice, which requires nominal reporting and a non-nominal investigation of the dentist’s practice, may constitute unlawful discrimination on the basis of a physical disability under the Ontario Human Rights Code.³² Although the code prohibits HIV-related discrimination in employment,³³ it does permit some discrimination if the disabled person is incapable of performing duties essential to his or her employment and cannot be accommodated without causing “undue hardship” to the employer.³⁴ The college might argue that it has accommodated the HIV-infected health care worker as best it can. However, Dr. X might argue that less invasive measures are available, such as only non-nominal reporting to the college. Even more narrowly, Dr. X might argue that some kind of individual assessment is required before any kind of reporting (even non-nominal) is justified.³⁵ For example, reporting might only be justified if there is an increased risk to patients, such as when an HIV-positive dentist has advanced AIDS, is refusing treatment or has demonstrated inadequate infection control procedures.

Conclusion

Various medical bodies have adopted guidelines to address the relatively low risk of HIV transmission in the dental care setting. These guidelines, as adopted in Ontario, provide that an HIV-infected dentist should nominally inform their licensing authority of their HIV status. This regulatory body, which has the legal power to revoke dental licences, would then monitor his or her practice on a non-nominal basis for compliance with infection control procedures and for incapacity. If a dentist in Ontario, for example, refuses to make the required report, the dentist's treating physician is under a legal obligation to nominally report him or her to the local medical officer of health, who would in turn notify the relevant regulatory body. In provinces that do not require nominal reporting of cases of HIV infection, physicians in these provinces would have to rely on other statutory or legal authorities to make a report regarding an HIV-positive dentist.

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Contributors: Dr. Gardam reviewed the literature relating to infection control issues and transmission. Dr. Salit reviewed the guidelines published by various health care bodies. Professor Flanagan reviewed the related legal issues, including the relevant regulatory bodies and their enforcement powers. All authors reviewed and contributed to the final manuscript.

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