

Contaminated dentistry and infection control standards of care

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Compliance with infection control standard of care is an ethical obligation and is at the core and key to quality care and excellence in dentistry. Questionable and controversial infection control practices are a common occurrence in South African Dental practices that places public health at risk and can potentially bring the whole profession in disrepute. Examples of such practices are:

- General use of so-called “cold sterilants” to sterilize heat tolerant critical and semi-critical instruments and devices, in stead of using heat sterilization (autoclave);
- Incorrect use of the type of, contact time and post-sterilization procedures when using liquid chemical sterilants (“cold sterilants”);
- Use of liquid chemical sterilants/ high-level disinfectants as a holding solution for instruments and devices;
- Re-use of disposable items e.g. gloves, impression trays, needles, suction tips, applicator tips and brushes, prophylaxis brushes, etc;
- Non-existent surgical aseptic technique and sterile field protocol when performing surgical and dental implant procedures;
- Insufficient or inappropriate use of expanded standard precautions in infection control;
- Non-compliance in wearing appropriate personal protective equipment to reduce the risk of exposure to

blood-borne pathogens when using rotary dental and surgical instruments or ultrasonic devices (e.g. gloves, surgical masks, protective eyewear, face shields and protective clothing);

- Non-compliance by cleaning and sterilization staff in wearing appropriate protective clothing;
- Inadequate hand antisepsis and/or surgical hand antisepsis practices;
- Lack of, or inappropriate use of cleaning, disinfection and sterilization procedures for patient care items;
- Insufficient environmental and housekeeping infection control practices (disinfecting surfaces or equipment that does not contact the patient directly, e.g. light handles, switches, dental radiograph equipment, dental chair-side computers, drawer handles, countertops, telephones, doorknobs); and
- Absence of a protocol for preventing and managing occupational exposures to infectious disease.

Furthermore, it is fair to say that a written infection control policy to prevent or reduce the risk of transmission of infectious diseases is non-existent.

Safe versus negligent conduct

Abovementioned practices place the health and safety of patients at risk. Dental health care professionals and their staff are also at risk of occupational exposure to bacteria and viruses. Such practices are indicative of a lack of a standard of care for infection control to guide the practitioner and to protect the public and thus considered as unethical and unsafe practice. Failure to prevent a foreseeable, avoidable harmful event caused by

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transmission of an infectious disease or cross-contamination with pathogenic microorganisms is considered negligent conduct.¹

The dental practice setting can be a safe place to provide and receive dental care only when an appropriate infection control standard of care is followed. The infection control standard of care is aimed at providing a safe working environment that will reduce the risk of cross-contamination of pathogenic microorganisms and transmission of infectious diseases.

The Standard of Care for Infection Control

The Centers for Disease Control and Prevention (CDC) have developed evidence-based guidelines on Infection Control in Dental Health Care Settings² and recommendations on the preferred methods of cleaning, disinfection and sterilization practices in the health care setting.³ The CDC Guidelines are considered as the “Standard of Care for Infection Control” to prevent transmission of disease from patient to dental health care worker, from dental health care worker to patient, and from patient to patient during dental treatment.

Why is everybody turning a blind eye towards infection control, when it should be a priority? Why are these questionable and controversial practices still prevalent in dental practice whilst guidelines and recommendations for a standard of care are available? Why have the dental community not adopted these recommendations and guidelines into their practices? Surely it cannot be an economic issue because there are fees that dentists can and do charge for infection control measures. These pressing questions remain unanswered.

There are primarily four role players in this exposé of ‘dirty dentistry’. This exposé should be seen as a challenge to the role players to prove that they are compliant in their responsibility towards infection control standards, but more importantly, to improve the quality and excellence in dentistry by bringing the Infection Control Standard of Care in the spotlight and to its rightful place in dental practice that will lift the bar on public health and safety.

National, Provincial and Local Government – Legal and Regulatory obligations

There is no National Infection Control Policy, rules or regulations; nor are there any in-service training and

orientation infection control programs set by government that regulate or guide the practice and conduct of dental professionals to protect patients and dental health care workers against an unreasonable risk of disease.

Section 7 of the constitution affords everyone the right to live in an environment that is not harmful to his/her health or well-being.

The Occupational Health and Safety Act, No.85 of 1993, Section 8(1), states that the employer is obligated to provide as far as is reasonably practical a safe working environment.

The oral health aspects of transmission of infectious disease, and infection control issues related to the practice of dentistry are non-existent in National Health Policy. This should be addressed as a matter of urgency to make an impact on the South African dental community as a whole.

Academic institutions

Academic Institutions in South Africa are responsible for the education and training of dental health care workers and are often involved in continuing professional development programmes in this regard. Academic institutions also conduct research on public health related priority issues. Are curricula compliant with the standards for infection control? Are pre-graduate and postgraduate students adequately exposed to the procedures of cleaning, disinfection and sterilization of instruments and patient care devices, and to other infection control recommendations throughout their study career? Are CDC infection control guidelines and recommendations for cleaning, disinfection and sterilization incorporated in curriculum content and clinical activities at dental schools, dental auxiliary schools and in advanced dental education programs? Academic institutions need to take a hard look at themselves to see if they are fulfilling this pressing need in the under- and postgraduate curricula. Education and training programs should also be appropriate to the assigned duties of specific dental staff (e.g. techniques to clean and sterilize instruments and to prevent cross-contamination).²

South African Dental Association

The South African Dental Association has an educational obligation and moral duty to the dental community by disseminating or transferring current knowledge and guidelines on the standard of care for infection control.

During the past 10 years only four papers have been published on the topic of infection control in the South African Dental Journal.^{4,5,6,7}

It was concluded by de Kock and van Wyk⁴ that interceptive and preventive education and peer pressure could remedy the need that existed for proper infection control practice by oral hygienists in South Africa. The study conducted by Yengopal, Naidoo and Chitke⁵ showed that adherence to universally accepted guidelines for infection control remain low amid a climate of the ever-increasing HIV pandemic in South Africa. No educational programs, publications, conferences or videotapes on this topic have been forthcoming irrespective of the findings of these studies. Ethical issues have been on the priority list for continuing professional development and for publications in the South African Dental Journal for the past two decades. Infection control, which is an ethical issue, is apparently, not considered by the South African Dental Association as a priority issue.

Dental health care workers

All dental health professionals (specialists, dentists, oral hygienists, dental therapists) have the ethical responsibility, obligation and moral duty to ensure that they stay up-to-date on infection control procedures, chemicals and technology required to prevent the transmission of infectious diseases. They should also understand why infection control procedures are necessary.⁸ Standard of care implies that health care workers should possess a reasonable degree of learning and skill; use reasonable care and diligence in the exercise of his or her knowledge and skills; must keep abreast of current knowledge and use approved methods or guidelines in general practice.⁹ Dental health professionals also have an obligation and duty to properly train their staff (dental assistants, cleaners and sterilization staff) in infection control, cleaning, disinfection and sterilization measures. Dentists who fail to comply with the abovementioned, and as a result, provide substandard care, can be held liable for negligence.

Are dentists prepared to voluntarily expose their infection control practices to the public? Those dentists who are prepared to do this are applauded. Those unwilling to do, should not be allowed to practice dentistry. Many dentists appear to have no real interest in day-to-day infection control issues. These tasks are assigned to dental assistants and 'cleaning staff' who

have at most of times no training in infection control. Are dentists ignorant about the importance of this aspect of dentistry, or is the economy forcing dentists to cut infection control costs? This is done at the expense of their patients, themselves, and their staffs' safety and thus exposing themselves to acts of negligence. According to the CDC Guidelines², dental health care workers are more likely to comply with an infection control program if they understand its rationale. A clearly written infection control policy on procedures and guidelines will help ensure consistency, efficiency and effective compliance with infection control activities.

Moral duty and obligations?

Infection control is at the heart of public health and safety. This makes it a key ethical issue because the fundamental ethical principles of beneficence (doing good), non-maleficence (preventing harm), fairness (disposal of single use items) and autonomy (being informed on safety) are compromised. Providing sub-standard infection control care is unethical and unsafe dental practice. As a professional, the dentist has a moral duty and obligation to put the patients' and staffs' best interest before self-interest. The question is asked whether academic institutions, dental associations and government have met their obligations in providing the necessary infrastructure, support, education and training for the dental community to ensure an appropriate standard of care for infection control in the dental health care setting? Government, regulatory bodies, academic institutions and associations are collectively accountable for the clinical governance, regulation, guidance, and education of the dental community to ensure the continuous improvement of the quality of services and safeguarding high standards of care and to encourage the pursuit of excellence in clinical care. The current practices in dental surgeries seem to indicate that they have failed in this obligation.

Recommendations:

- A 'National Infection Control Policy' should be put in place by government. Infection control practices in all health care setting should be properly regulated by appropriate rules and guidelines.
- Dental practices should be inspected and those who comply with infection control standards should be issued with a license.

- Academic and training institutions should review the content and clinical contact time with evidence-based recommendations and guidelines on infection control, cleaning, disinfection and sterilization in their curricula. Education and training in infection control should be continuous throughout a study career and applied to all aspects of pre-operative, peri-operative and post-operative patient care.
- The South African Dental Association and other related professional organisations should encourage publications on infection control issues as a high priority as this is an ethical issue. The Practice Committee of the South African Dental Association should also draw up a 'Standard Infection Control Policy Guideline' for practitioners.
- Academic Institutions and the South African Dental Association should both develop and implement a continuing education programme on the various aspects of infection control for all dental health care workers.
- A South African Dental Association 'Road Show' on 'Standard Infection Control Practices' should be made a high priority.
- Registration criteria, claims made by manufacturers of liquid chemical sterilants and disinfectants, and the validation thereof should receive serious investigation.

Conclusion

Infection control is a fundamentally important professional obligation. It is core and key to quality and safe dental care. It is meaningless and hypocritical for abovementioned regulatory and educational institutions to state their commitment to quality and excellence in dental care, when they are paying no more than lip service towards the standard of care issues in infection control.

Did each dental professional not take the Hippocratic Oath that they would ultimately not harm their patients?

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