

Infection Control in Dentistry – Some Points

Introduction

Infection control is an essential part of dental clinical practice. The pathogens causing infections are: bacteria, viruses, pathogenic fungi (e.g. *Candida albicans*), protozoa, worms and prions (e.g. prion associated with CJD). A great number of pathogens may be present in the blood and saliva of patients. These include Hepatitis B and C viruses, human immunodeficiency virus (HIV), *Herpes Simplex* virus, respiratory tract viruses and *Mycobacterium tuberculosis*.

Transmission

These pathogens can be transmitted by: direct contact, indirect spread via a carrier, inhalation, ingestion and inoculation. It is impossible to identify those patients who might be carrying pathogens. It is therefore essential to maintain high standards of infection control against *all patients*.

Patients with HIV or carriers of Hepatitis B or C should also be treated using the standard infection control procedures. Available evidence indicates that in the absence of a sharps injury, any risk of infection to dental personnel during treatment is negligible.

Prions

Prions associated with Creutzfeldt-Jakob disease (CJD) are much more difficult to destroy than other micro-organisms. In the recent past, it was recommended that such patients be treated using disposable dental instruments. However, more recent assessments have suggested that the risk of transmission from a single dental procedure would be 1,000,000,000 times lower than a tonsillectomy. If dental pulp were to be infective, the risk would increase. However, even after taking a negative view, risk per procedure would still be at least ten times lower than that for a tonsillectomy.

Endodontics

There appears to be evidence that endodontic reamers and files cannot be reliably decontaminated. Therefore, it has been advised that these instruments should be treated as single use and disposed of after each patient. This obviously has serious implications in resource limited settings.

All Instruments

It has to be emphasised that *all instruments* must be cleaned, disinfected and packaged ready for use to the highest standard. The manufacturers are required to provide validated re-processing instructions.

MRSA

Methicillin-resistant *Staphylococcus aureus* is resistant to many common antibiotics. MRSA colonies can be found mainly in the nose and the skin of hospitalised patients and those who have been discharged recently. However, no special precautions are necessary for the treatment of patients harbouring MRSA.

Ethics

It is unethical to refuse treatment to a patient with a potentially infectious disease in order to reduce risk to dental staff.

Conclusion

Most effective way to reduce cross-infection in a dental practice is to follow standard infection control procedures during treatment of ALL patients including those with MRSA or blood borne viruses such as Hepatitis B.

Abstracted from:

Guidance Notes for the Control of Infection in Dentistry; CE Mercer, A Amla, R Allaker & E Boon; Institute of Dentistry, Queen Mary, University of London, UK. (46 pages)