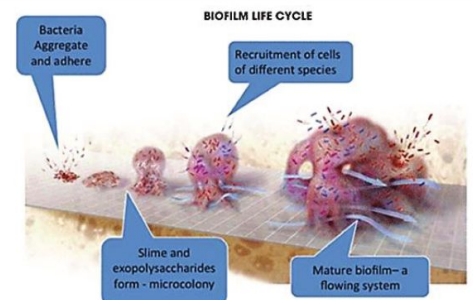


Dental Unit Water lines, Biofilm and Water quality



INTRODUCTION

Dental Chair Units (DCU) and the Dental Unit Water Lines (DUWL's) lines are classified as medical devices and require minimum sanitary and hygiene interventions to maintain the safety of dental staff and patients alike.

Water is used to cool instruments, protect teeth and to flush debris, body fluids during dental procedures.

This water may also serve as a source of microbial contamination.

BIOFILM

This hazard is associated with the adherence and growth of colonies of various microbes forming Biofilms within the DUWL's of the DCU's.

These biofilms can form within 6-8 hours and rapidly become established and tolerant to current biocides.



Biofilm within a DUWL

BIOFILM

These biofilms coat the inner surfaces of the DUWL's and continuously shed carbohydrate based biofilm matrix and microbes into the water into the mouth of the patient and the airspace around the dental professionals.

Carbotect™ is a rapid diagnostic tool capable of detecting the presence of any biofilm and to proactively predict the potential presence of microbial contaminants with adverse health implications.



Minimum medical or dental hygiene and safety requires that ALL aspects of care are hygienic and safe for all parties involved in the treatment.

Costly medical and dental devices are progressively required to safeguard patient health and safety.

However basic water quality applied to exposed dental surfaces appears is not assured when patients and staff are exposed to microbial contaminants

Carbotect™ is a reliable diagnostic water quality tool to verify the sanitary status of the water used in Dental Unit Water Lines (DUWL's).

The rapid diagnostic result that Carbotect™ affords the dental professional is invaluable to providing their patients with a safe and hygienic outcome to a visit to their dental clinic.

In addition, the Carbotect™ technology reliably detects the presence of chemical residues used for the control of biofilms.

The globally prescribed benchmark of the American Dental Association (ADA) dictates that the microbe count in water used in DUWL's should not exceed 200CFU/ml (Colony Forming Units per milli-litre).

Carbotect™ allows the dental health care professional to confirm that the water is either sanitary or potentially soiled with microbes associated with established biofilms growing within the water supply system.



SUMMARY

1

Rapid and reliable detection of biofilm compounds

2

Monitoring of biofilm build-up and details the results of biofilm treatment

3

Rapid detection of residues of chemicals used for biofilm control