

Covid-Secure Dental Practices

Dental practices have a number of infection hazards that can manifest associated with their professional activities, all well-known and all of which are perfectly manageable, safely. That was the case until this year when the Coronavirus struck. Covid-19 is behaving almost identically to its coronavirus fore-runner, SARS, which broke out 20 years ago, except it is very much more contagious.

Dental studios carry both types of risk: a) surface contamination and b) airborne contamination. Patients who may be carrying the virus wait in a reception area normally but even with management processes in terms of separation, infected people (unknown to them) will touch surfaces and inhale/exhale the air in that room. Several people in that typical space, often unventilated, will produce higher volumes of aerosol which can potentially be carrying deadly pathogens such as covid-19. These risks only compound throughout the day due to microbes still being airborne 3 hours after they were first ejected into the air.



The Practice Room will have a very high aerosol load by the very nature of the work undertaken by the dentist. Patients will rinse and spit with mouthwash, they will splutter and cough, those more anxious patients will breath faster and create more viral risk from the human aerosol which can be airborne in the room for 3 hours. This is a contamination hazard to the staff and the following patients. Risk can be reduced though.



Dental Practices need to remain open, but they can't do this by seeing only one patient potentially every 3 hours, its just not economically viable. Dentists need to be much more rigorous in reducing the risk of transmission to themselves, their employees and their patients. In order to do this a dentist can employ a few different strategies, each with varying levels of success.



They could perform a simple wipe down of surfaces after each client, but this has a minor effect on the risk of transmission because the WHO have confirmed in July 2020, Covid-19 is still transmitted via the air. Wiping will mitigate surface contamination though, to a degree.

The next mitigate that some are undertaking, is to wipe and install a so-called, "air purifier". The use of air purifiers will help to mitigate only a small amount of the risk of transmission, being able to remove larger dust particles and larger microbes. However, this will not remove the smaller dehydrated microbes from the air and these are the ones which can cause serious illness. Even the best medical grade Hepa Filters only filter down to 3 microns, many viruses, including coronavirus can be as small at 1 micron. This is why Germicidal UV-C was used to beat MRSA in hospitals almost 20 years ago

The final and most effective method is indeed, to use germicidal UV-C light for surface and air sterilisation. PP-L are on the Government's Covid Response Key Supplier List, Classified under Medical, and their world class surface sterilisation solution is able to sterilise a 25sqm room in 15-20 mins (between patients) making it completely safe to use for the next client and staff members when deployed in conjunction with their UV-C air sterilisation systems. These sterilise room air and can safely run constantly with staff and patients in the room. These are low-cost solutions, literally only cost pennies per hour of use. This most potent non-chemical solution is the safest methodology available for patients and staff to visit and undertake treatment in a dental practice.

