

RISK OF COVID 19 TRANSMISSION THROUGH AEROSOLS DURING DENTAL PROCEDURES



The coronavirus disease (COVID-19) pandemic has become a major global public health emergency with a focus on preventing the spread of this virus for controlling this crisis. A dental setting is at a high risk of cross infection amid patients and dental practitioner's owing to the spread of infection via droplets suspended in the air (**AEROSOLS**) by infected symptomatic or asymptomatic subjects.

Exposure to biological risk in a dental setting is a hazard to the patients, doctors, hygienists and assistants. When patients cough, sneeze or undergo procedures with ultrasonic, high speed instruments or air water syringe it results in aerosol, droplet, spatter, salivary secretions, debris or blood. This environmental spatter travels over a short distance, settles down quickly and contaminates the air, floor, operatory surface, medical supplies, devices, equipment, apparatus, dental health care professional and the patient. A salivary gland could be a major viral source enabling the transmission of COVID-19 by asymptomatic infections originating from infected saliva. Aerosols are liquid and solid particles (<50 μm diameter) suspended in air for protracted periods. Splatter is a mixture of air, water and/or solid substances (50 μm –7 mm in diameter). They may be contaminated with bacteria, virus and fungi hence pose a health risk to the Dental Healthcare Personnel and also pose a major risk of cross-contamination between patients visiting a dental operatory. **Henceforth, it is pivotal for every dental clinic to ensure measures to reduce Aerosol generation in their operatories.**