

Air flow plays a key role in mitigating the COVID-19 airborne infection

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Abstract

WHO guidance has incorrect recommendation in Oral health care involving AGPs. Air flow plays a key role in mitigating COVID-19 infection since airborne particles travel by air currents.

BDA criticises misreporting of WHO guidance¹. The document published by WHO on 3 August advocating that 'Oral health care involving AGPs shows incorrect procedures in the wind control. According to WHO, Aerosol-generating procedures (AGPs) are widely performed worldwide in oral health care settings. AGPs are defined as any medical, dental and patient care procedure that results in the production of airborne particles <5 micrometres (μm) in size (aerosols), which can remain suspended in the air, travel over a distance and may cause infection if they are inhaled.

SARS-CoV-2 was named after SARS by WHO on Feb. 11 2020². This virus naming means that SARS-CoV-2 is very similar to SARS-COV. Both SARS-CoV and SARS-CoV-2 use human ACE2 as entry receptor and human proteases as entry activators^{3,4,5}. In other words, SARS-CoV-2 has the same transmission behavior as SARS-CoV. COVID-19 is an airborne infection disease.

In order to avoid airborne infection of COVID-19 between a patient and the dentist, it is necessary to control the air flow since airborne particles often remain suspended in the air or travel by the air currents. We need to make sure that the air flow doesn't always point towards the body in order to prevent airborne infections. WHO did not mention the air flow direction at all^{6,7}. To prevent airborne infections, it is always necessary to keep the air flow away from the body.

In order to control the air flow, we should use vacuum cleaners against airborne viruses. A vacuum cleaner is a device that causes suction in order to remove airborne viruses travelling from infected persons. Always make sure keeping the air flow away from the body.

References:

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