

DENTAL REOPENING AMIDST COVID-19 CHALLENGES



Roslyn Franklin is a dentist and an infection control consultant with a wealth of knowledge having practical, educational training and accreditation experience.

Roslyn has also completed a Certificate IV in Work Health and Safety, a Graduate Certificate in Infection Prevention and Control from Griffith University and is a primary credentialed infection control professional with the Australasian College of Infection Prevention and Control (ACIPC).

With her respected consultancy business, Amalgamate, Roslyn has focused on working with and educating dental teams to achieve realistic and best practice infection prevention and control practice in Australia.



As the transition to reopen dental practices takes place, the balance of safety and care of patients and staff must be taken into consideration. Dental practices are encouraged to always conduct an individual risk assessment for each scheduled patient. This risk assessment should include screening patients for respiratory illness and epidemiological factors. As well, the patient's dental treatment should be classified into the urgency of the visit, the likelihood of generating aerosols during the visit, and a decision as to whether to provide or defer treatment. Based on the results of this risk assessment, staff should then be able to form an appropriate infection control process that will meet the needs of each individual patient. The table below highlights risk reduction recommendations for every phase of a dental visit.

<p>PATIENT SCHEDULING</p>	<ul style="list-style-type: none"> • Pre-screen all patients with specific questions • Increase appointment times • Patient only, no visitors • Temperature check on entry • Require patient to wear a mask, until they reach the treatment room • Social distancing, when possible 		
<p>RECEPTION ROOM</p>	<ul style="list-style-type: none"> • De-clutter and remove magazines • High touch areas cleaned regularly • Place hand hygiene and cough etiquette posters • Space seating 	<p>PPE MEASURES</p>	<ul style="list-style-type: none"> • Proper donning and doffing of gowns, masks, eye protection and gloves • Proper selection and wear of surgical or respirator masks • Practice good hand hygiene
<p>CLINICAL PROCEDURE RECOMMENDATIONS FOR ALL PROCEDURES (AGPS & NON AGPS)</p>	<ul style="list-style-type: none"> • Pre-procedure supervised mouthwashes for 30 seconds • High volume evacuation • Rubber dam • Minimize 3-in-1 syringe use • Four handed dentistry (work with an assistant) • Only essential dental professionals present during procedures 	<p>AEROSOL GENERATING PROCEDURES (AGPS)</p>	<ul style="list-style-type: none"> • Use of high-speed handpieces • Use of Cavitron, Piezosonic or other types of ultrasonic scalers • Polishing teeth • Air abrasion • High pressure use of 3-in-1 syringe
<p>CLEANING / DISINFECTING</p>	<ul style="list-style-type: none"> • Use recommended protocols and products for cleaning & decontamination of the environment • Identify detergent cleaners VS disinfectant chemicals • Review cleaning techniques • Identify high touch areas and items • Use disposable surface protection 	<p>DENTAL TEAM</p>	<ul style="list-style-type: none"> • Staff meeting with infection control coordinator • Daily staff screening • Infection control training: hand hygiene, PPE, environmental cleaning • Stock PPE inventory • Follow local & regional policies on vaccinations

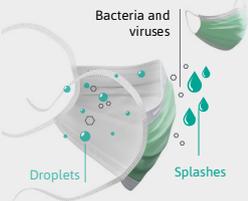
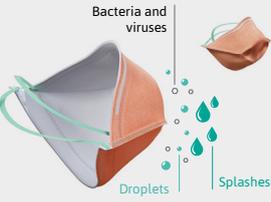
Current evidence shows that COVID-19 is spread via respiratory droplets and contact routes, which is spread when an affected individual coughs or sneezes and becomes airborne or on any surface that may contain the virus. Additionally, airborne transmission may be possible in aerosol-generating treatments or procedures (AGPs), which calls for dental practices to update their guidelines with current recommendations. Selecting the correct personal protective equipment (PPE) during AGPs is imperative to maintain safe practices for staff and patients.

The following tables highlight current PPE recommendations for AGPs and Non-AGPs during dental treatments, proper mask and respirator selection:

Minimum PPE recommended when providing restricted dental treatment

USA		Australia		UK and EU	
Patients without COVID-19 (low risk) ¹⁷		Patients without COVID-19 (low risk) ²		All Patients ^{10 UK, 27 EU}	
For all AGPs	Non AGPs	For all AGPs	Non AGPs	For all AGPs	Non AGPs
N95 respirator or better	N95 respirator or better <i>If not available, put on surgical mask (level 2 or 3) with full face shield</i>	Surgical mask (level 2 or 3)		FFP3 respirator	Surgical mask FFP2 or FFP3 respirator (Valved or non-valved)
Full face shield or goggles		Full face shield, safety goggles, goggles		Full face shield, safety goggles, goggles	
Medical Gloves (non sterile)		Medical Gloves (non sterile)		Medical Gloves (non sterile)	
Gown		Gown or protective clinical clothing		Gown	Apron



CATEGORY	MEDICAL MASKS		FACIAL FILTERING RESPIRATORS		
MEDICAL MASKS Measures % efficacy of bacterial filtration efficiency (BFE) of the particle size @3.0 microns 	USA: ASTM F2100	Filtration efficiency is one of five tests conducted to classify the masks under 3 levels	Level 1 ≥ 95%	Level 2 ≥ 98%	Level 3 ≥ 98%
	EU: EN14683	Filtration efficiency is one of four tests conducted to classify the masks under 3 types	Type I ≥ 95%	Type II ≥ 98%	Type IIR ≥ 98%
FACIAL FILTERING RESPIRATORS Measures the % efficacy of the penetrating particle size @0.3 microns 	USA: 42 CFR 84	This standard meets the performance criteria set by CDC for respiratory devices used in healthcare settings and is used by US National Institute for Occupational Safety and Health (NIOSH) for certification	N95 ≥ 95%	N99 ≥ 99%	N100 ≥ 99.97%
	EU: EN149	This standard specifies minimum requirement for filtering half masks as respiratory protective devices to protect against particles except for escape purposes	FFP ≥ 80%	FFP 2 ≥ 94%	FFP 3 ≥ 99%

Additional information on PPE use during clinical care can be found at <https://www.cdc.gov/coronavirus/2019-ncov/hcp/dental-settings.html>.

References

- Ansell. (2020). COVID-19: An overview of mask rating classified by leading standards. Ansell website. <https://www.ansell.com/us/en/the-new-coronavirus/safety-resources>. Accessed September 11, 2020.
- Franklin, R. (2020). Reopening Dental Practices: Infection Control Challenges. [Webinar]. Available at <https://www.ansell.com/us/en/medical/services/ansellcares/webinar/dental>

Please Note: Given the novelty of this coronavirus, recommendations from the source references are interim and advisory in nature and are based on current knowledge of the situation. Always ensure compliance with your local public health authorities regulations surrounding conservation, usage, and selection guidance of PPE to combat the COVID-19 pandemic.