

This table has been updated following the guidelines published by SDCEP¹ on 25th September, 2020 and provides a list of most procedures in a routine orthodontic clinic with a reference to the potential for AGP production. Automated instruments driven by compressed air, or similar, working at <60,000 rpm will tend to generate droplets or splatter rather than a true AGP with particle size of <5µm. Manual instrumentation does not generate an AGP. Patients who cough, sneeze or rather, during treatment procedures, will generate droplets which could produce an aerosol or splatter. Care should be taken to avoid stimulating these reactions.

Mitigation Procedures	
HVE	More than 250l/min with >= 8mm bore
Follow Time (Group B)	Minimum of 10 minutes
Follow Time (Group A)	See Table attached below
Ventilation	This should be 10 Air changes per hour (ACH).
Bay Clinics ³ Ref Here	5 meters between patients

Group A procedures use powered, high velocity instruments that emit or require water or irrigants for cooling. These procedures will produce aerosol particles <5 µm and require airborne transmission-based precautions. Procedural mitigation and follow time (PPE suitable for AGP)

Group B procedures that use powered, low velocity instruments used for limited amounts of time. These procedures are unlikely to produce aerosol particles <5 µm and require procedural mitigation (HVE) and standard infection prevention and control precautions as routinely used in dentistry. (PPE suitable for Non-AGP)

Group C procedures do not use powered instruments. These procedures may produce splatter but are unlikely to produce aerosol particles <5 µm, and require standard infection prevention and control precautions as routinely used in dentistry. (PPE suitable for Non-AGP)

Appointment type	Procedure	Group C	Group B	Group A	Comments/Suggested Alternatives
Consultation					
New Patient assessment	Examination	X			
	Extra oral	X			
	Intra Oral	X			
	Periodontal	X			
	Surface wash and dry 3:1 (air & water in combination)			X	Consider cotton wool wipe, separate water & air / HVE
Treatment Planning	Surface drying 3:1 (air or water only but not in combination)		X		Consider cotton wool wipe / HVE
	Photographs	X			Care with occlusal views; consider non-mirror shots
	Impressions	X			Reduce material to avoid coughing
	Scanning	X			
	Discussion	X			Consider virtual consultation, via video link
Consent	X			Consider virtual consultation, via video link	
Fixed Appliances & Fixed Retainers					
Bond up	Tooth prophylaxis		X		Consider toothbrushing only
	Surface wash and dry 3:1 (air & water in combination)			X	Consider cotton wool wipe / HVE only
	Surface drying 3:1 (air or water only but not in combination)		X		
	Etch, wash & dry separately		X		Dry tooth with HVE and cotton wool pledget
	Tooth/teeth drying with cotton wool wipe	X			Avoid 3:1. Bond strength may be reduced
	Self etch Prime, without blowing resin with 3:1	X			
	Bracket placement	X			
	Band cementation	X			
	a/w tie in	X			
	a/w tie in and removal	X			
Fixed Adjustment	auxiliary attachment and removal	X			
	Composite removal -HS handpiece			X	Use SL Handpiece or Hand Instrument
	Composite removal - SL handpiece	X			
	Composite removal - hand instrument	X			
	Bond - as above for Bond up	X			
Bracket repair	Bracket removal	X			
	Band removal	X			
	Composite removal -HS handpiece			X	Use SL Handpiece or Hand Instrument
	Adhesive removal with SL	X			
	Adhesive removal; manual (plan to remove residual material later)	X			
Full Debond	Composite removal -HS handpiece			X	Use SL Handpiece or Hand Instrument
	Adhesive removal with SL	X			
	Adhesive removal; manual (plan to remove residual material later)	X			
	Prophy			X	Accept no tooth preparation or use SL Handpiece prophy
	Etch, wash & dry separately			X	Use HVE to dry
Fixed retainer	Self etch Prime, without blowing resin with 3:1	X			Use HVE to remove monomer (drv)
	Placement of retainer (Composite & Wire)	X			
	Composite removal SL			X	
	New retainer placement as per bondup	X			
	Remove and provide Vacuum retainer	X			
Removable Retainers and Appliances					
Vacuum retainer	Impressions	X			
	Scanning	X			
	Fit	X			
	Adjustment/easing with shears or scissors	X			
	Adjustment/easing with handpiece and bur		X		
Hawley Retainer (or similar) Removable Appliances	Impressions	X			Reduce material to avoid coughing
	Scanning	X			
	Fit	X			
	Adjust cribs	X			
	Easing with handpiece and bur		X		
Aligners					
Clear aligner treatment	Impressions	X			Reduce material to avoid coughing
	Scanning	X			
	Fit	X			
	Adjustment/easing with shears or scissors	X			
	Adjustment/easing with handpiece and bur		X		
Bonding attachments	Tooth prophylaxis		X		Use HVE to dry
	Etch, wash & dry separately		X		Bond strength may be reduced
	Self etch Prime, without blowing resin with 3:1	X			
	Placement of template and curing	X			
	Flash removal with HS			X	Use SL Handpiece
Attachment Removal	Flash removal with SL	X			
	Flash removal manually	X			
	Adhesive removal with HS			X	Use SL Handpiece
	Adhesive removal with SL	X			
	Adhesive removal; manual	X			
Other Procedures					
Inter-proximal reduction	HS Handpiece			X	Use manual abrasive strips
	SL Handpiece (rotary, reciprocating, disc)		X		Use manual abrasive strips
TAD placement/removal	Manual abrasive strips	X			Use manual abrasive strips
	Handpiece Manual Driver	X	X		Manual placement if possible
Scaling teeth, roots	Ultrasonic			X	Use hand instruments only
	Manual	X			

References
 1. SDCEP - Rapid Review of Aerosol Generating Procedures in Dentistry
<https://www.sdcep.org.uk/published-summaries/covid-19-practice-recovery/rapid-review-of-agps/>
<https://www.sdcep.org.uk/wp-content/uploads/2020/09/SDCEP-Mitigation-of-AGPs-in-Dentistry-Rapid-Review.pdf>
 2. What is an Orthodontic AGP, British Orthodontic Society
<https://www.bos.org.uk/COVID19-BOS-Advice/Recovery-Phase-Advice/What-is-an-orthodontic-AGP>
 3. Evaluating dental aerosol and splatter in an open plan clinic environment: implications for the COVID-19 pandemic
<https://doi.org/10.4917/Version 1.0 Published 25 Sept 2020 - 09:00>
 For further information please visit www.bos.org.uk

Key	
AGP	Aerosol Generating Procedure
Non-AGP	Non-Aerosol Generating Procedure
HVE	High Volume Evacuation (suction)
3:1	3 in 1 air and water syringe
a/w	Archwire
HS	High speed handpiece
SL	Slow speed handpiece <60,000rpm
SEP	Self-etch prime
TAD	Temporary Anchorage Device

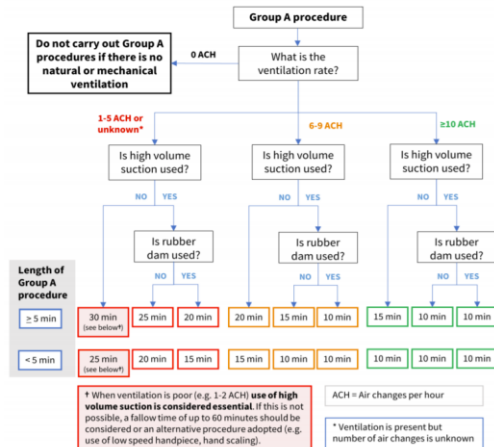


Table 3.1 Categorisation of dental procedures according to aerosol production

	Group A	Group B*	Group C
Definition	Dental procedures that will produce aerosol particles <5µm	Dental procedures that may produce aerosol particles <5µm, with the amount depending on instrument use	Dental procedures that may produce aerosol particles <5µm
Precautions	Procedures that use powered, high velocity instruments that emit or require water or irrigants for cooling	Procedures that use powered, low velocity instruments	Procedures that do not use powered instruments
PPE required†	<ul style="list-style-type: none"> Airborne transmission-based precautions Procedural mitigation Follow time 	<ul style="list-style-type: none"> Standard infection prevention and control precautions as routinely used in dentistry Procedural mitigation 	<ul style="list-style-type: none"> Standard infection prevention and control precautions as routinely used in dentistry
Examples of Instruments/Procedures	<ul style="list-style-type: none"> Ultrasonic scaler (including piezo) Single use gun FPFS respirator or hood FPFS use or reusable eye/face protection (visor) Pneusurgical handpiece Air polisher 3-in-1 syringe (air and water together) 	<ul style="list-style-type: none"> 3-in-1 syringe (air-only water only) Slow speed electric handpiece (i.e. <60,000 rpm) Pharyngitis with pneumatic long low-speed handpiece (prophy cup) Distillery Denture/ortho adjusting using slow speed handpiece Surgical implant procedure Surgical handpiece 	<ul style="list-style-type: none"> Extraction (using forceps/elevator) Hand scaling Inhalation sedation Impressions Intraoral radiographs Local anaesthetic administration Dental examination without 3-in-1 syringe Re-cement crown

*From UK IPC guidance, which also includes advice on seasonal use.
 †While 3-in-1 syringe with combined air and water is categorised as Group A, when used very briefly the amount of aerosol produced may be considerably less than that produced by other Group A procedures. Consequently, if a risk assessment establishes that the combined 3-in-1 will only be used very briefly, and no other Group A procedures are planned, the precautions for Group B procedures can be followed.
 ‡For some procedures or instruments categorised in Group B, a further risk assessment of exactly how the instrument will be used is required to determine whether to follow the precautions recommended for Group A procedures.