

## REFERENCE

Ghoneim A, Proaño D, Kaur H, Singhal S. Aerosol-generating procedures and associated control/mitigation measures: Position paper from the Canadian Dental Hygienists Association and the American Dental Hygienists' Association. *Can J Dent Hyg.* 2024;58(1):48–63.

## APPENDIX. Search strategy outline for each research question

**Q1:** What is the risk of transmission of microbial pathogens between clinical dental hygienists performing AGPs and their patients?

### WEB OF SCIENCE

Database	Queries	Results
<b>Web of Science</b>		
1	coronavirus infections OR covid-19 (Topic)	367591
2	TS=(microbial pathogens or bacteria or viral infections)	1034508
3	#1 OR #2	1377673
4	TS=(disease transmission OR cross infection)	230883
5	TS=(infectious disease transmission or risk of transmission)	121807
6	#4 OR #5	289492
7	TS=(aerosols or aerosol generating procedures or respiratory aerosols and droplets)	157526
8	TS=( “dental operator” OR “dental clinic” Or dent*)	382908
9	#7 AND #8	879
10	#3 AND #6 AND #9 and English (Languages) and 2014 or 2015 or 2016 or 2017 or 2018 or 2019 or 2020 or 2021 or 2022 (Publication Years)	294
11	#1 AND #2	24426
12	#4 AND #5	63198
13	#9 AND #11 AND #12	29

### COCHRANE

Database	Queries	Results
<b>Cochrane</b>		
	<b>Title abs key</b>	
1	coronavirus or covid 19	68
2	transmission of disease or risk of transmission	198
3	aerosols or aerosol generating procedures or respiratory aerosols	36
4	Dent*	1370
5	microbial pathogens or bacteria or viral infections or infectious diseases	790
6	dental hygienists OR dentists OR dental offices	73
3 and 4 and 6		5
3 and 4		12
1 or 3		824
1 or 3 and 2	microbial pathogens or bacteria or viral infections or infectious diseases in Title Abstract Keyword OR coronavirus or covid 19 in Title Abstract Keyword AND transmission of disease or risk of transmission in Title Abstract Keyword - (Word variations have been searched)	791

	microbial pathogens or bacteria or viral infections or infectious diseases in Title Abstract Keyword OR coronavirus or covid 19 in Title Abstract Keyword AND transmission of disease or risk of transmission in Title Abstract Keyword AND aerosols or aerosol generating procedures or respiratory aerosols in Title Abstract Keyword AND Dent* in Title Abstract Keyword - (Word variations have been searched)	597 (by date)
	microbial pathogens or bacteria or viral infections or infectious diseases in Title Abstract Keyword AND coronavirus or covid 19 in Title Abstract Keyword AND transmission of disease or risk of transmission in Title Abstract Keyword AND aerosols or aerosol generating procedures or respiratory aerosols in Title Abstract Keyword AND Dent* in Title Abstract Keyword - (Word variations have been searched)	4 (by date)
	microbial pathogens or bacteria or viral infections or infectious diseases in Title Abstract Keyword AND coronavirus or covid 19 in Title Abstract Keyword AND transmission of disease or risk of transmission in Title Abstract Keyword AND aerosols or aerosol generating procedures or respiratory aerosols in Title Abstract Keyword AND dental hygienists OR dentists OR dental offices in Title Abstract Keyword - (Word variations have been searched)	1

#### SCOPUS

Database	Queries	Results
<b>SCOPUS</b>		
1	coronavirus AND infections/ OR covid-19/	248,805
2	disease AND transmission OR cross AND infection	273,843
3	microbial AND pathogens/ OR bacteria/ OR viral AND infections	98,123
4	infectious AND disease AND transmission/ OR risk AND of AND transmission	59,658
5	patient-to-professional OR professional-to-patient	6161
6	aerosols OR aerosol AND generating AND procedures OR respiratory AND aerosols AND droplets	338
7	Dent*	757,321
8	dental AND hygienists OR dentists OR dental AND offices	10,801
9	1 or 3	345,646
10	2 or 4 or 5	288,452
11	6 and 7	64
12	9 and 10 and 11	31
13	Limit to by "English" and yrs of pub ( TITLE-ABS-KEY ( aerosols OR aerosol AND generating AND procedures OR respiratory AND aerosols AND droplets ) ) AND ( TITLE-ABS-KEY ( dent* ) ) AND ( ( TITLE-ABS-KEY ( disease AND transmission/ OR cross AND infection/ ) ) OR ( TITLE-ABS-KEY ( infectious AND disease AND transmission/ OR risk AND of AND transmission ) ) OR ( TITLE-ABS-KEY ( patient-to-professional OR professional-to-patient ) ) ) AND ( ( TITLE-ABS-KEY ( coronavirus AND infections/ OR covid-19/ ) ) OR ( TITLE-ABS-KEY ( microbial AND pathogens/ OR bacteria/ OR viral AND infections ) ) ) AND PUBYEAR > 2011 AND PUBYEAR < 2023 AND ( LIMIT-TO ( LANGUAGE , "english" ) )	29

#### OVID MEDLINE

Database	Queries	Results
Ovid Medline		

1	exp Coronavirus Infections/ or exp COVID-19/ or Disease transmission.mp	256039
2	exp Cross Infection/	64149
3	Microbial pathogens.mp. or exp Bacteria/	1505118
4	Viral infections.mp. or exp Virus Diseases/	1196503
5	exp Infectious Disease Transmission, Vertical/ or risk of transmission.mp. or exp COVID-19/	226802
6	Patient-to-Professional.mp.	6503
7	Aerosols/ or "Respiratory Aerosols and Droplets"/ or (Air Microbiology/ or Occupational Exposure/)	99916
8	exp Influenza, Human/ or exp Coronavirus Infections/ or exp SARS-CoV-2/ or exp Infectious Disease Transmission, Patient-to-Professional/ or exp Cross Infection/ or exp COVID-19/ or Aerosol generating procedures.mp. or exp Pneumonia, Viral/	342554
9	dent\$.mp.	634255
10	1 or 3 or 4	2690107
11	2 or 5 or 6	293810
12	10 and 11	259072
13	7 or 8	437492
14	12 and 13	239855
15	7 and 9	1888
16	14 and 15	283
17	limit 16 to (english language and yr="2012 -Current")	132
18	risk.mp. or exp Risk/	3162170
19	17 and 18	74

OVID EMBASE

Database	Queries	Results
<b>Ovid Embase</b>		
1	Coronavirus infections/ or exp COVID-19/ or Disease transmission.mp.	407281
2	exp Cross Infection/	23441
3	Microbial pathogens.mp. or exp bacteria/	1996442
4	Viral Infections.mp.	40908
5	Infectious disease transmission/ or risk of transmission.mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	113011
6	Patient-to-Professional.mp.	1524
7	Professional-to-Patient.mp.	13395
8	6 or 7	14809
9	Aerosols.mp. or exp aerosol/	80659
10	Aerosol Generating Procedures.mp. or exp aerosol generating procedure/	1566
11	(Respiratory Aerosols and Droplets).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	29
12	dent\$.mp.	617471
13	dental hygienists.mp. or exp dental hygienist/	2675
14	dentists.mp. or exp dentist/	48550
15	1 or 3 or 4	2416180
16	2 or 5 or 8	148513
17	9 or 10 or 11	81743
18	12 and 15 and 16 and 17	156
19	limit 18 to (english language and yr="2012 -Current")	112
20	exp prevention/ or prevention.mp. or exp infection prevention/	3131993
21	19 not 20	59
22	(19 and 5) not 20	45

**Q2:** Does the use of pre-procedural mouth rinses reduce the count of microbial pathogens and/or the risk of infection transmission between dental hygienists performing AGPs and their patients?

OVID MEDLINE

Database	Keywords	Number of results
<b>Ovid Medline</b>		
1	Mouthwashes/ or Chlorhexidine/ or Anti-Infective Agents, Local/	27031
2	Bacterial Load/ or Bacteria/ or (Colony Count, Microbial/ or Bacterial Infections/) or Infections/	309126
3	COVID-19/ or Respiratory Tract Infections/ or Disease Transmission, Infectious/ or Cross Infection/ or (COVID-19/ or SARS-CoV-2/)	306415
4	COVID-19/ or Coronavirus Infections/ or Infection Control/ or Pneumonia, Viral/ or Pandemics/ or Influenza, Human/ or SARS-CoV-2/ or Cross Infection/ or Infectious Disease Transmission, Patient-to-Professional/	342214
5	Aerosols/ or "Respiratory Aerosols and Droplets"/ or (Air Microbiology/ or Occupational Exposure/)	99570
6	dent\$.mp.	631408
7	2 or 3	603752
8	4 or 5	435258
9	1 and 6 and 7 and 8	93
10	limit 9 to (english language and yr="2012 -Current")	<b>54</b>

OVID EMBASE

Database	Keywords	Number of results
<b>Ovid Embase</b>		
1	Mouthwashes/ or Chlorhexidine/ or Anti-Infective Agents, Local/	30345
2	Bacterial Load/ or Bacteria/ or (Colony Count, Microbial/ or Bacterial Infections/) or Infections/	455933
3	COVID-19/ or Respiratory Tract Infections/ or Disease Transmission, Infectious/ or Cross Infection/ or (COVID-19/ or SARS-CoV-2/)	306071
4	COVID-19/ or Coronavirus Infections/ or Infection Control/ or Pneumonia, Viral/ or Pandemics/ or Influenza, Human/ or SARS-CoV-2/ or Cross Infection/ or Infectious Disease Transmission, Patient-to-Professional/	389829
5	Aerosols/ or "Respiratory Aerosols and Droplets"/ or (Air Microbiology/ or Occupational Exposure/)	454493
6	dent\$.mp.	612907
7	2 or 3	752190
8	4 or 5	829593
9	1 and 6 and 7 and 8	599
10	limit 9 to (english language and yr="2012 -Current")	<b>211</b>

SCOPUS

Database	Keywords	Number of results
<b>Scopus</b>		
1	TITLE+ABS_KEY (mouthwashes/ OR chlorhexidine/ OR anti-infective AND agents, AND local/)	34,559 results
2	TITLE-ABS-KEY ( bacterial AND load/ OR bacteria/ OR ( colony AND count, AND microbial/ OR bacterial AND infections/ ) OR infections/ )	1,199,830 results

3	TITLE-ABS-KEY ( covid-19/ OR respiratory AND tract AND infections/ OR disease AND transmission, AND infectious/ OR cross AND infection/ OR ( covid-19/ OR sars-cov-2/ ) )	2,648 results
4	TITLE-ABS-KEY ( covid-19/ OR coronavirus AND infections/ OR infection AND control/ OR pneumonia, AND viral/ OR pandemics/ OR influenza, AND human/ OR sars-cov-2/ OR cross AND infection/ OR infectious AND disease AND transmission, AND patient-to-professional/ )	1,107 results
5	TITLE-ABS-KEY ( aerosols/ OR "respiratory aerosols and droplets" / OR ( air AND microbiology/ OR occupational AND exposure/ ) )	217,770 results
6	TITLE-ABS-KEY ( dent* )	757,321 results
7	2 or 3	1,201,921 results
8	4 or 5	218,530 results
9	1 AND 6 AND 7 AND 8	28 results
10	LIMIT-TO ( PUBYEAR , 2022 ) OR LIMIT-TO ( PUBYEAR , 2021 ) OR LIMIT-TO ( PUBYEAR , 2020 ) OR LIMIT-TO ( PUBYEAR , 2019 ) OR LIMIT-TO ( PUBYEAR , 2017 ) OR LIMIT-TO ( PUBYEAR , 2014 ) OR LIMIT-TO ( PUBYEAR , 2013 ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) )	10 results
Combined	( mouthwashes/ OR chlorhexidine/ OR anti-infective AND agents, AND local/ ) AND ( TITLE-ABS-KEY ( dent* ) ) AND ( ( TITLE-ABS-KEY ( bacterial AND load/ OR bacteria/ OR ( colony AND count, AND microbial/ OR bacterial AND infections/ ) OR infections/ ) ) OR ( TITLE-ABS-KEY ( covid-19/ OR respiratory AND tract AND infections/ OR disease AND transmission, AND infectious/ OR cross AND infection/ OR ( covid-19/ OR sars-cov-2/ ) ) ) ) AND ( ( TITLE-ABS-KEY ( covid-19/ OR coronavirus AND infections/ OR infection AND control/ OR pneumonia, AND viral/ OR pandemics/ OR influenza, AND human/ OR sars-cov-2/ OR cross AND infection/ OR infectious AND disease AND transmission, AND patient-to-professional/ ) ) OR ( TITLE-ABS-KEY ( aerosols/ OR "Respiratory Aerosols and Droplets" / OR ( air AND microbiology/ OR occupational AND exposure/ ) ) ) ) ) AND ( LIMIT-TO ( PUBYEAR , 2022 ) OR LIMIT-TO ( PUBYEAR , 2021 ) OR LIMIT-TO ( PUBYEAR , 2020 ) OR LIMIT-TO ( PUBYEAR , 2019 ) OR LIMIT-TO ( PUBYEAR , 2017 ) OR LIMIT-TO ( PUBYEAR , 2014 ) OR LIMIT-TO ( PUBYEAR , 2013 ) ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) )	<b>10 results</b>

#### WEB OF SCIENCE

Database	Keywords	Number of results
<b>Web of Science</b>		
1	TS =(Mouthwashes/ or Chlorhexidine/ or Anti-Infective Agents, Local/)	17,532
2	TS = (Bacterial Load/ or Bacteria/ or Colony Count, Microbial/ or Bacterial Infections/ or Infections/)	2,541,620
3	TS = (COVID-19/ or Respiratory Tract Infections/ or Disease Transmission, Infectious/ or Cross Infection/ or COVID-19/ or SARS-CoV-2/)	503,012
4	TS = (COVID-19/ or Coronavirus Infections/ or Infection Control/ or Pneumonia, Viral/ or Pandemics/ or Influenza, Human/ or SARS-CoV-2/ or Cross Infection/ or Infectious Disease Transmission, Patient-to-Professional/)	859,517
5	TS = (Aerosols/ or "Respiratory Aerosols and Droplets"/ or (Air Microbiology/ or Occupational Exposure/))	213,116
6	TS=( "dental operator" OR "dental clinic" Or dent*)	379,094
7	#2 OR #3	2,819,670
8	#4 OR #5	1,064,027
9	#1 AND #6 AND #7 AND #8	409
10	Limit 9 to publication date 2012-01-01 to 2022-11-09	<b>257</b>

COCHRANE

Database	Keywords	Number of results
<b>Cochrane Library</b>		
1	Mouthwashes or Chlorhexidine or Local Anti-Infective Agents	67
2	Bacterial Load or Bacteria or Microbial Colony Count or Bacterial Infections or Infections or COVID-19 or Respiratory Tract Infections or Infectious Disease Transmission or Cross Infection or COVID-19 or SARS-CoV-2	1712
3	COVID-19 or Coronavirus Infections or Infection Control or Viral Pneumonia or Pandemics or Human Influenza or SARS-CoV-2 or Cross Infection or Patient-to-Professional Infectious Disease Transmission	1632
4	Aerosols or "Respiratory Aerosols and Droplets" or Air Microbiology or Occupational Exposure	57
5	dent*	1150
	Mouthwashes or Chlorhexidine or Local Anti-Infective Agents in Title Abstract Keyword AND Bacterial Load or Bacteria or Microbial Colony Count or Bacterial Infections or Infections or COVID-19 or Respiratory Tract Infections or Infectious Disease Transmission or Cross Infection or COVID-19 or SARS-CoV-2 in Title Abstract Keyword AND COVID-19 or Coronavirus Infections or Infection Control or Viral Pneumonia or Pandemics or Human Influenza or SARS-CoV-2 or Cross Infection or Patient-to-Professional Infectious Disease Transmission in Title Abstract Keyword AND Aerosols or "Respiratory Aerosols and Droplets" or Air Microbiology or Occupational Exposure in Title Abstract Keyword AND dent* in Title Abstract Keyword - with Cochrane Library publication date Between Jan 2012 and Dec 2022 (Word variations have been searched)	5

GOOGLE SCHOLAR

Database	Keywords	Number of results
<b>Google Scholar</b>		
	"bacterial load" OR "cross infection" OR "disease transmission" OR "dental clinic" OR "dental operatory" OR "dental setting" "aerosol" mouthrinse" "anti infective agents" "preprocedural mouth rinse"	262 results

**Q3:** Does the use of aerosol reducing methods limit the spread of aerosols and reduce the risk of infection/transmission between dental hygienists performing AGPs and their patients in the dental and dental hygiene settings compared to not using aerosol reducing methods?

OVID MEDLINE

Database	Keywords	Number of results
<b>Ovid medline (Nov.15)</b>	1 exp Infectious Disease Transmission, Patient-to-Professional/ or exp Cross Infection/ or exp Infection Control/ or exp Coronavirus Infections/ or aerosol generating procedures.ab,kf.	424230
	2 (bioaerosol or bio-aerosol or aerosol).ab,kf.	34638
	3 1 or 2	475129
	4 ((rubber or dental) adj dam).ab,kf.	775
	5 ((extraoral or extra oral) adj suction).ab,kf.	15
	6 ((extraoral or extra oral) adj evacuator).ab,kf.	4
	7 ((intraoral or intra oral) adj suction).ab,kf.	11
	8 ((intraoral or intra oral) adj evacuator).ab,kf.	0
	9 dent*.ab,kf.	304633
	10 4 or 5 or 6 or 7 or 8	802

	11 3 and 10	70
	12 9 and 11	63
	13 limit 12 to (english language and yr="2012 - 2022")	44

#### OVID EMBASE

Embase (Nov.15)	1 exp Infectious Disease Transmission, Patient-to-Professional/ or exp Cross Infection/ or exp Infection Control/ or exp Coronavirus Infections/ or aerosol generating procedures.ab,kf.	424230
	2 (bioaerosol or bio-aerosol or aerosol).ab,kf.	53589
	3 1 or 2	475129
	4 ((rubber or dental) adj dam).ab,kf.	815
	5 ((extraoral or extra oral) adj suction).ab,kf.	14
	6 ((extraoral or extra oral) adj evacuator).ab,kf.	3
	7 ((intraoral or intra oral) adj suction).ab,kf.	11
	8 ((intraoral or intra oral) adj evacuator).ab,kf.	0
	9 dent*.ab,kf.	332744
	10 4 or 5 or 6 or 7 or 8	840
	11 3 and 10	72
	12 9 and 11	68
	13 limit 12 to (english language and yr="2012 - 2022")	50

#### SCOPUS

Scopus (Nov 15)	TITLE-ABS-KEY ( ( bioaerosol OR {bio-aerosol} OR aerosol ) AND ( {rubber dam} OR {dental dam} OR {extraoral suction} OR {extra oral suction} OR {extraoral evacuator} OR {extra oral evacuator} OR {intraoral suction} OR {intra oral suction} OR {intraoral evacuator} OR {intra oral evacuator} ) AND ( OR dent* ) ) AND PUBYEAR > 2012 AND ( LIMIT-TO ( LANGUAGE , "English" ) )	39
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#### WEB OF SCIENCE

WoS (Nov 15)	1. TS=(bioaerosol or bio-aerosol or aerosol)	157,728
	2. TS=("rubber dam" OR "dental dam")	830
	3. TS= ("extraoral suction" OR "extra oral suction" OR "extraoral evacuator" OR "extra oral evacuator" OR "intraoral suction" OR "intra oral suction" OR "intraoral evacuator" OR "intra oral evacuator")	26
	4. TS= dent*	379,599
	<b>1 AND 2 AND 3 AND 4</b>	<b>1</b>

#### COCHRANE

Cochrane Library (Nov 15)	(bioaerosol OR "bio-aerosol" OR aerosol) AND ("rubber dam" OR "dental dam" OR "extraoral suction" OR "extra oral suction" OR "extraoral evacuator" OR "extra oral evacuator" OR "intraoral suction" OR "intra oral suction" OR "intraoral evacuator" OR "intra oral evacuator") AND (dent*)	2– cochrane reviews; 4 trials)
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GOOGLE SCHOLAR

<b>Google Scholar (Nov.15)</b>	(((bioaerosol OR "bio aerosol" OR aerosol) ("rubber dam" OR "dental dam") (dent*) - education) [Filter: 2012–2022, English language]	666
	((bioaerosol OR "bio aerosol" OR aerosol) ("extraoral suction" OR "extra oral suction" OR "extraoral evacuator" OR "extra oral evacuator") (dent*) -education)) [Filter: 2012–2022, English language]	101
	((bioaerosol OR "bio aerosol" OR aerosol) (“intraoral suction” OR “intra oral suction” OR “intraoral evacuator” OR “intra oral evacuator”) (dent*)) [Filter: 2012–2022, English language]	28

**Q4:** What are the types and effectiveness of the personal protective equipment used to reduce contact with aerosols and the risk of infection transmission between dental hygienists performing AGPs and their patients?

OVID MEDLINE

Database	Keywords	Number of results
<b>Ovid medline</b>		
1	COVID-19/ or Respiratory Tract Infections/ or Disease Transmission, Infectious/ or Cross Infection/ or (COVID-19/ or SARS-CoV-2/)	305491
2	COVID-19/ or Coronavirus Infections/ or Infection Control/ or Pneumonia, Viral/ or Pandemics/ or Influenza, Human/ or SARS-CoV-2/ or Cross Infection/ or Infectious Disease Transmission, Patient-to-Professional/	341277
3	Aerosols/ or "Respiratory Aerosols and Droplets"/ or (Air Microbiology/ or Occupational Exposure/)	99524
4	dent\$.mp.	631015
5	Personal Protective Equipment/	3857
6	1 or 2	386597
7	3 and 4 and 5 and 6	13
8	limit 7 to (english language and yr="2012 -Current")	<b>11</b>

OVID EMBASE

Database	Keywords	Number of results
<b>Ovid Embase</b>		
1	COVID-19/ or Respiratory Tract Infections/ or Disease Transmission, Infectious/ or Cross Infection/ or (COVID-19/ or SARS-CoV-2/)	306071
2	COVID-19/ or Coronavirus Infections/ or Infection Control/ or Pneumonia, Viral/ or Pandemics/ or Influenza, Human/ or SARS-CoV-2/ or Cross Infection/ or Infectious Disease Transmission, Patient-to-Professional/	389829
3	Aerosols/ or "Respiratory Aerosols and Droplets"/ or (Air Microbiology/ or Occupational Exposure/)	454493
4	dent\$.mp.	612907
5	Personal Protective Equipment/	26351
6	1 or 2	511298
7	3 and 4 and 5 and 6	106
8	limit 7 to (english language and yr="2012 -Current")	<b>84</b>

SCOPUS

Database	Keywords	Number of results
<b>Scopus</b>		



1	TITLE-ABS-KEY ( covid-19/ OR respiratory AND tract AND infections/ OR disease AND transmission, AND infectious/ OR cross AND infection/ OR ( covid-19/ OR sars-cov-2/ ) )	2,648 results
2	TITLE-ABS-KEY ( covid-19/ OR coronavirus AND infections/ OR infection AND control/ OR pneumonia, AND viral/ OR pandemics/ OR influenza, AND human/ OR sars-cov-2/ OR cross AND infection/ OR infectious AND disease AND transmission, AND patient-to-professional/ )	1,107 results
3	TITLE-ABS-KEY ( aerosols/ OR "respiratory aerosols and droplets" / OR ( air AND microbiology/ OR occupational AND exposure/ ) )	217,770 results
4	TITLE-ABS-KEY ( dent* )	757,321 results
5	TITLE-ABS-KEY ( personal AND protective AND equipment/ )	15,494 results
6	1 or 2	3,660 results
7	3 AND 4 AND 5 AND 6	14 results
8	LIMIT-TO ( PUBYEAR , 2022 ) OR LIMIT-TO ( PUBYEAR , 2021 ) OR LIMIT-TO ( PUBYEAR , 2020 ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) )	14 results
Combined	( TITLE-ABS-KEY ( aerosols/ OR "Respiratory Aerosols and Droplets" / OR ( air AND microbiology/ OR occupational AND exposure/ ) ) ) AND ( TITLE-ABS-KEY ( dent* ) ) AND ( TITLE-ABS-KEY ( personal AND protective AND equipment/ ) ) AND ( ( TITLE-ABS-KEY ( covid-19/ OR coronavirus AND infections/ OR infection AND control/ OR pneumonia, AND viral/ OR pandemics/ OR influenza, AND human/ OR sars-cov-2/ OR cross AND infection/ OR infectious AND disease AND transmission, AND patient-to-professional/ ) ) OR ( TITLE-ABS-KEY ( covid-19/ OR respiratory AND tract AND infections/ OR disease AND transmission, AND infectious/ OR cross AND infection/ OR ( covid-19/ OR sars-cov-2/ ) ) ) ) ) AND ( LIMIT-TO ( PUBYEAR , 2022 ) OR LIMIT-TO ( PUBYEAR , 2021 ) OR LIMIT-TO ( PUBYEAR , 2020 ) ) AND ( LIMIT-TO ( LANGUAGE , "English" ) )	<b>14 results</b>

#### WEB OF SCIENCE

Database	Keywords	Number of results
<b>Web of Science</b>		
1	TS=( COVID-19/ or Respiratory Tract Infections/ or Disease Transmission, Infectious/ or Cross Infection/ or COVID-19/ or SARS-CoV-2/ )	503,012
2	TS=( COVID-19/ or Coronavirus Infections/ or Infection Control/ or Pneumonia, Viral/ or Pandemics/ or Influenza, Human/ or SARS-CoV-2/ or Cross Infection/ or Infectious Disease Transmission, Patient-to-Professional/ )	859,517
3	TS=( Aerosols/ or "Respiratory Aerosols and Droplets"/ or (Air Microbiology/ or Occupational Exposure/ ) )	213,116
4	TS=( dent* )	379,094
5	TS=( Personal Protective Equipment/ )	10,368
6	#1 OR #2	903,420
7	#3 AND #4 AND #5 AND #6	116
8	Limit 7 to publication date 2012-01-01 to 2022-11-09	<b>115</b>

#### COCHRANE

Database	Keywords	Number of results
<b>Cochrane Library</b>		
1	COVID-19 or Respiratory Tract Infections or Infectious Disease Transmission or Cross Infection or COVID-19 or SARS-CoV-2	409
2	COVID-19 or Coronavirus Infections or Infection Control or Viral Pneumonia or Pandemics or Human Influenza or SARS-CoV-2 or Cross Infection or Patient-to-Professional Infectious Disease Transmission	1632

3	Aerosols or "Respiratory Aerosols and Droplets" or Air Microbiology or Occupational Exposure	57
4	Dent*	1150
5	Personal Protective Equipment	16
6	1 OR 2 AND 3 AND 4 AND 5	1
Combined	COVID-19 or Respiratory Tract Infections or Infectious Disease Transmission or Cross Infection or COVID-19 or SARS-CoV-2 or COVID-19 or Coronavirus Infections or Infection Control or Viral Pneumonia or Pandemics or Human Influenza or SARS-CoV-2 or Cross Infection or Patient-to-Professional Infectious Disease Transmission in Title Abstract Keyword AND Aerosols or "Respiratory Aerosols and Droplets" or Air Microbiology or Occupational Exposure in Title Abstract Keyword AND Dent* in Title Abstract Keyword AND "personal protective equipment" in Title Abstract Keyword - with Cochrane Library publication date Between Jan 2012 and Dec 2022 (Word variations have been searched)	1

#### GOOGLE SCHOLAR

Database	Keywords	Number of results
<b>Google Scholar</b>		
	"dental office" "dental operator" "cross infection" OR aerosol OR "COVID 19" OR "Infectious Disease Transmission" "personal protective equipment"	162 results

**Q5:** What operatory setups limit the spread of aerosols in dental and dental hygiene settings?

#### OVID MEDLINE

Database	Queries	Results
<b>Ovid MEDLINE</b>		
1	dent\$.mp.	634713
2	infrastructure.mp. or exp COVID-19/	254334
3	reduction.mp.	1391864
4	exp Aerosols/	35826
5	Aerosol generating procedures.mp.	746
6	exp Dental Clinics/ or Dental Clinic Architecture.mp. or exp "Facility Design and Construction"/	28912
7	exp Air Conditioning/ or HVAC.mp. or exp Ventilation/	8939
8	(operatory design or operatory layout or dental office design).mp.	22
9	Aerosols or Respiratory aerosols.mp.	43576
10	exp Ergonomics/ or exp Air Microbiology/ or Dental operatory design.mp.	68855
11	exp Dental Offices/ or dental office design.mp.	3536
12	3 and 4 and 5 and 9	19
13	2 or 6 or 8 or 10 or 11	352284
14	12 and 13	15
15	1 and 4 and 7	17
16	14 or 15	32
17	limit 16 to (english language and yr="2012 - 2022")	21

#### OVID EMBASE

Database	Queries	Results
<b>Embase</b>		
1	dent\$.mp.	617666
2	Aerosols or Respiratory aerosols).mp. [mp=title, abstract, heading word, drug trade name, original title, device manufacturer, drug manufacturer, device trade name, keyword heading word, floating subheading word, candidate term word]	28067
3	operatory design or operatory layout or dental office design).mp.	20
4	Ergonomics/ or exp Air Microbiology/ or Dental operatory design.mp.	511522

5	Air Conditioning/ or HVAC.mp. or exp Ventilation/	32623
6	Dental Offices/ or dental office design.mp.	3986
7	COVID.mp. or exp coronavirus disease 2019/	359035
8	4 and 5	783
9	1 and 2 and 7	204
10	3 or 4 or 5 or 6	547156
11	9 and 10	20
12	limit 11 to (english language and yr="2012 - 2022")	19

SCOPUS

Database	Queries	Results
<b>Scopus</b>		
1	TITLE-ABS-KEY (aerosols OR respiratory AND aerosols )	191,854
2	TITLE-ABS-KEY (operator AND design OR operator AND layout OR office AND design)	39
3	TITLE-ABS-KEY (dent*)	757,368
4	TITLE-ABS-KEY (limit OR reduce)	4,202,989
5	TITLE-ABS-KEY (spread)	546,641
6	( TITLE-ABS-KEY ( dent* ) ) AND ( TITLE-ABS-KEY ( aerosols OR respiratory AND aerosols ) ) AND ( TITLE-ABS-KEY ( limit OR reduce ) ) AND ( TITLE-ABS-KEY ( spread ) )	65
7	( TITLE-ABS-KEY ( DENT* ) ) AND ( TITLE-ABS-KEY ( AEROSOLS OR RESPIRATORY AND AEROSOLS ) ) AND ( TITLE-ABS-KEY ( LIMIT OR REDUCE ) ) AND ( TITLE-ABS-KEY ( SPREAD ) ) AND ( LIMIT-TO ( PUBYEAR , 2022 ) OR LIMIT-TO ( PUBYEAR , 2021 ) OR LIMIT-TO ( PUBYEAR , 2020 ) OR LIMIT-TO ( PUBYEAR , 2019 ) OR LIMIT-TO ( PUBYEAR , 2016 ) OR LIMIT-TO ( PUBYEAR , 2014 ) OR LIMIT-TO ( PUBYEAR , 2013 ) OR LIMIT-TO ( PUBYEAR , 2012 ) ) AND ( LIMIT-TO ( LANGUAGE , "ENGLISH" ) )	59
8	(( TITLE-ABS-KEY ( DENTAL AND OFFICE AND DESIGN ) OR TITLE-ABS-KEY ( DENTAL AND OPERATORY ) OR TITLE-ABS-KEY ( OPEN AND OPERATORY ) OR TITLE-ABS-KEY ( CLOSED AND OPERATORY ) ) ) AND ( (( TITLE-ABS-KEY ( DENT* ) ) AND ( TITLE-ABS-KEY ( AEROSOLS OR RESPIRATORY AND AEROSOLS ) ) AND ( TITLE-ABS-KEY ( LIMIT OR REDUCE ) ) AND ( TITLE-ABS-KEY ( SPREAD ) ) ) OR ( TITLE-ABS-KEY ( DENTAL AND OPERATORY AND DESIGN ) AND PUBYEAR > 2011 AND PUBYEAR < 2023 AND PUBYEAR > 2011 AND PUBYEAR < 2023 ) ) AND ( LIMIT-TO ( SUBJAREA , "DENT" ) ) AND ( LIMIT-TO ( PUBYEAR , 2022 ) OR LIMIT-TO ( PUBYEAR , 2021 ) OR LIMIT-TO ( PUBYEAR , 2020 ) OR LIMIT-TO ( PUBYEAR , 2019 ) OR LIMIT-TO ( PUBYEAR , 2016 ) OR LIMIT-TO ( PUBYEAR , 2014 ) ) AND ( LIMIT-TO ( LANGUAGE , "ENGLISH" ) )	12

WEB OF SCIENCE

Database	Queries	Results
<b>Web of Science</b>		
1	TS=(aerosols or aerosol generating procedures or respiratory aerosols and droplets)	157653
2	TS=( "dental operatory" OR "dental clinic" Or dent*)	383271
3	#1 AND #2	881
4	coronavirus infections OR covid-19 (Topic)	369467
5	TS=(microbial pathogens or bacteria or viral infections)	1035755
6	#1 OR #4 OR #5	1530518
7	#2 AND #6 Timespan: 2012-01-01 to 2022-12-31	11106

8	dental clinic design or architecture (Topic) Timespan: 2012-01-01 to 2022-12-31	502345
9	dental clinic design or architecture (Topic) AND Covid (Topic) Timespan: 2012-01-01 to 2022-12-31	2144
10	#15 AND #7 AND #9 Timespan: 2012-01-01 to 2022-12-01	42

#### COCHRANE

	Queries	Results
<b>Cochrane</b>	<b>Title Abstract Keyword</b>	
1	dental office design or dental operatory	4 reviews
2	spread of aerosols	8 reviews
Combined	limit aerosols or respiratory aerosols in Title Abstract Keyword AND dental office design or dental operatory in Title Abstract Keyword - (Word variations have been searched)	1 review

**Q6:** What is the appropriate fallow time that allows for aerosols to completely settle and reduce the risk of infection transmission between dental hygienists and their patients after performing AGPs?

#### OVID MEDLINE

Database	Keywords	Number of results
<b>Ovid medline (Nov.15)</b>	1 exp Infectious Disease Transmission, Patient-to-Professional/ or exp Cross Infection/ or exp Infection Control/ or exp Coronavirus Infections/ or aerosol generating procedures.ab,kf.	20899428
	2 (bioaerosol or bio-aerosol or aerosol).ab,kf.	34638
	3 1 or 2	20920900
	4 (fallow time).ab,kf.	18
	5 infection transmission.ab,kf. or (infection and transmission).ab,kf.	82872
	6 dent*.ab,kf.	304595
	7 3 and 4 and 5 and 6	2
	8 limit 7 to (english language and yr="2012 - 2022")	2

#### OVID EMBASE

Database	Keywords	Number of results
<b>Embase (Nov.15)</b>	1 exp Infectious Disease Transmission, Patient-to-Professional/ or exp Cross Infection/ or exp Infection Control/ or exp Coronavirus Infections/ or aerosol generating procedures.ab,kf.	424230
	2 (bioaerosol or bio-aerosol or aerosol).ab,kf.	53589
	3 1 or 2	475129
	4 (fallow time).ab,kf.	21
	5 infection transmission.ab,kf. or (infection and transmission).ab,kf.	102817
	6 dent*.ab,kf.	332744
	7 3 and 4 and 5 and 6	2
	8 limit 7 to (english language and yr="2012 - 2022")	2

#### SCOPUS

<b>Scopus (Nov. 15)</b>	TITLE-ABS-KEY ( ( bio aerosol OR {bioaerosol} OR aerosol ) AND {fallow time} AND ( dent* ) ) AND PUBYEAR > 2012 AND ( LIMIT-TO ( LANGUAGE , "English" ) )	0
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WEB OF SCIENCE

<b>WoS</b> <b>(Nov 15)</b>	1. TS=(bioaerosol or bio-aerosol or aerosol)	157,728
	2. TS=("fallow time")	40
	3. TS= dent*	379,599
	<b>1 AND 2 AND 3</b>	<b>11</b>

COCHRANE

<b>Cochrane Library</b> <b>(Nov 15)</b>	(bioaerosol OR "bio-aerosol" OR aerosol) AND "fallow time" AND (dent*)	<b>0</b>
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GOOGLE SCHOLAR

<b>Google Scholar</b> <b>(Nov 15)</b>	((bioaerosol OR "bio-aerosol" OR aerosol) AND "fallow time" AND (dent*)) [Filter: 2012–2022, English language]	137
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**REFERENCE**

Ghoneim A, Proaño D, Kaur H, Singhal S. Aerosol-generating procedures and associated control/mitigation measures: Position paper from the Canadian Dental Hygienists Association and the American Dental Hygienists' Association. *Can J Dent Hyg.* 2024;58(1):48–63.