Supplementary Materials

Contents

Search Strategies

Table s1. Search strategies for mask use

Embase <3/30/2021>

Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations and Daily <3/30/2021>

1. exp coronavirus/
2. ((corona* or corono*) adj1 (virus* or viral* or virinae*)).ti,ab,kw.
3. (coronavirus* or coronovirus* or coronavirinae* or Coronavirus* or Coronovirus* or Wuhan* or Hubei* or Huanan or "2019-nCoV" or 2019nCoV or nCoV2019 or "nCoV-2019" or "COVID-19" or COVID19 or "CORVID-19" or CORVID19 or "WN-CoV" or WNCoV or "HCoV-19" or HCoV19 or CoV or "2019 novel*" or Ncov or "n-cov" or "SARS-CoV-2" or "SARSCoV-2" or "SARSCoV2" or "SARS-CoV2" or SARSCov19 or "SARS-Cov19" or "SARSCov-19" or "SARS-Cov-19" or Ncovor or Ncorona* or Ncorono* or NcovWuhan* or NcovHubei* or NcovChina* or NcovChinese*).ti,ab,kw.
4. (((respiratory* adj2 (symptom* or disease* or illness* or condition*)) or "seafood market*" or "food market*") adj10 (Wuhan* or Hubei* or China* or Chinese* or Huanan*)).ti,ab,kw.
5. ((outbreak* or wildlife* or pandemic* or epidemic*) adj1 (China* or Chinese* or Huanan*)).ti,ab,kw.
6. exp Coronavirus Infections/
7. OR/1-6
8. exp Masks/ OR exp Respiratory Protective Devices/ OR exp Personal Protective Equipment/
9. (mask* OR "personal protective equipment" OR "respiratory protective device*" OR "filtering face piece" OR FFP OR N95 OR N97 OR N99 OR respirator OR respirators OR ((Face* OR facial* OR head OR mouth OR nose OR respiratory) adj2 (cloth* OR cover* OR device* OR equipment OR filter* OR gear* OR mask* OR protect* OR scar* OR shield*))).ti,ab,kw. NOT (masking.ab. OR "fresh frozen plasma".ti,ab,kw.)
10. 8 OR 9
11. 7 AND 10
12. english language.
13. 11 AND 12
14. yr="2020"
15. 13 AND 14
16. ((randomized controlled trial OR controlled clinical trial).pt. OR randomized.ti,ab. OR randomised.ti,ab. OR randomly.ti,ab.) NOT (exp animals/ not exp humans/)
17. 15 AND 16
18. coronavirus disease 2019'/exp
19. ((corona* OR corono*) NEAR/1 (virus* OR viral* OR virinae*)):ti,ab,kw
20. (coronavirinae* OR coronavirus* OR coronovirus* OR wuhan* OR hubei* OR huanan OR '2019-ncov' OR 2019ncov OR ncov2019 OR 'ncov-2019' OR 'covid-19' OR covid19 OR 'corvid-19' OR corvid19 OR 'wn-cov' OR wncov OR 'hcov-19' OR hcov19 OR cov OR '2019 novel*' OR ncov OR 'n-cov' OR 'sars-cov-2' OR 'sarscov-2' OR 'sarscov2' OR 'sars-cov2' OR sarscov19 OR 'sars-cov19' OR 'sarscov-19' OR 'sars-cov-19' OR ncovor OR ncorona* OR ncorono* OR ncovwuhan* OR ncovhubei* OR ncovchina* OR ncovchinese*):ti,ab,kw
21. (respiratory* NEAR/2 (symptom* OR disease* OR illness* OR condition*)):ti,ab,kw

22. (outbreak* OR wildlife* OR pandemic* OR epidemic*) NEAR/1 (china* OR chinese* OR huanan*)
23. (('seafood market*' OR 'food market*') NEAR/10 (wuhan* OR hubei* OR china* OR chinese* OR huanan*)):ti,ab,kw
24. coronavirus infection'/exp
25. OR/1-7
26. mask'/exp OR 'respiratory protection'/exp OR 'protective equipment'/exp
27. (mask* OR 'personal protective equipment' OR 'respiratory protective device*' OR 'filtering face piece' OR ffp OR n95 OR n97 OR n99 OR respirator OR respirators OR ((face* OR facial* OR head OR mouth OR nose OR respiratory) NEAR/2 (cloth* OR cover* OR device* OR equipment OR filter* OR gear* OR mask* OR protect* OR scar* OR shield*))):ti,ab,kw NOT (masking:ab OR 'fresh frozen plasma':ti,ab,kw)
28. 9 OR 10
29. 8 AND 11
30. [conference abstract]/lim OR [conference paper]/lim OR [conference review]/lim OR [editorial]/lim OR [erratum]/lim OR [letter]/lim OR [note]/lim
31. 12 NOT 13
32. [animals]/lim NOT [humans]/lim
33. 14 NOT 15
34. 14 NOT 15
35. [english]/lim
36. 16 AND 17
37. [2020-2020]/py
38. 18 AND 219
39. [randomized controlled trial]/lim
40. ((randomly OR randomized OR randomised) AND control* AND (studies OR study OR trial*)):ti,ab
41. 21 OR 22
42. 20 AND 23

Cochrane

<3/30/2021>

1. MeSH descriptor: [Coronavirus] explode all trees
2. ((corona* or corono*) NEXT (virus* or viral* or virinae*)):ti,ab,kw
3. (coronavirus* or coronovirus* or coronavirinae* or Coronavirus* or Coronovirus* or Wuhan* or Hubei* or Huanan or "2019-nCoV" or 2019nCoV or nCoV2019 or "nCoV-2019" or "COVID-19" or COVID19 or "CORVID-19" or CORVID19 or "WN-CoV" or WNCoV or "HCoV-19" or HCoV19 or CoV or "2019 novel*" or Ncov or "n-cov" or "SARS-CoV-2" or "SARSCoV-2" or "SARSCoV2" or "SARS-CoV2" or SARSCov19 or "SARS-Cov19" or "SARSCov-19" or "SARS-Cov-19" or Ncovor or Ncorona* or Ncorono* or NcovWuhan* or NcovHubei* or NcovChina* or NcovChinese*):ti,ab,kw
4. (((respiratory* NEAR/2 (symptom* or disease* or illness* or condition*)) or "seafood market*" or "food market*") NEAR/10 (Wuhan* or Hubei* or China* or Chinese* or Huanan*)):ti,ab,kw
5. ((outbreak* or wildlife* or pandemic* or epidemic*) NEXT (China* or Chinese* or Huanan*)):ti,ab,kw
6. MeSH descriptor: [Coronavirus Infections] explode all trees

7. OR/1-6
8. MeSH descriptor: [Masks] this term only
9. MeSH descriptor: [Respiratory Protective Devices] this term only
10. MeSH descriptor: [Personal Protective Equipment] this term only
11. (mask* OR "personal protective equipment" OR "respiratory protective device*" OR "filtering face piece" OR ffp OR n95 OR n97 OR n99 OR respirator OR respirators OR ((face* OR facial* OR head OR mouth OR nose OR respiratory) NEAR/2 (cloth* OR cover* OR device* OR equipment OR filter* OR gear* OR mask* OR protect* OR scar* OR shield*))):ti,ab,kw NOT (masking:ab OR "fresh frozen plasma":ti,ab,kw)
12. OR/8-11
13. 7 AND 12
14. March 1, 2020 to November 23, 2020 (Cochrane Reviews); 2020 to 2020
15. 13 AND 14

CINAHL

<3/30/2021>

1. MH "Coronavirus+"
2. ((corona* or corono*) N1 (virus* or viral* or virinae*))
3. (coronavirus* or coronovirus* or coronavirinae* or Coronavirus* or Coronovirus* or Wuhan* or Hubei* or Huanan or "2019-nCoV" or 2019nCoV or nCoV2019 or "nCoV-2019" or "COVID-19" or COVID19 or "CORVID-19" or CORVID19 or "WN-CoV" or WNCoV or "HCoV-19" or HCoV19 or CoV or "2019 novel*" or Ncov or "n-cov" or "SARS-CoV-2" or "SARSCoV-2" or "SARSCoV2" or "SARS-CoV2" or SARSCov19 or "SARS-Cov19" or "SARSCov-19" or "SARS-Cov-19" or Ncovor or Ncorona* or Ncorono* or NcovWuhan* or NcovHubei* or NcovChina* or NcovChinese*)
4. (((respiratory* N2 (symptom* or disease* or illness* or condition*)) or "seafood market*" or "food market*") N10 (Wuhan* or Hubei* or China* or Chinese* or Huanan*))
5. ((outbreak* or wildlife* or pandemic* or epidemic*) N1 (China* or Chinese* or Huanan*))
6. MH "Coronavirus Infections+"
7. OR/1-6
8. (MH "Masks+") OR (MH "Respiratory Protective Devices+") OR (MH "Personal Protective Equipment+")
9. (mask* OR "personal protective equipment" OR "respiratory protective device*" OR "filtering face piece" OR ffp OR n95 OR n97 OR n99 OR respirator OR respirators OR ((face* OR facial* OR head OR mouth OR nose OR respiratory) N2 (cloth* OR cover* OR device* OR equipment OR filter* OR gear* OR mask* OR protect* OR scar* OR shield*))) NOT (masking OR "fresh frozen plasma")
10. 8 OR 9
11. 7 AND 10
12. Published Date: 20200301-20201130
13. 11 AND 12
14. english language
15. 13 AND 14

16. PT Randomized Controlled Trial OR ((randomly OR randomized OR randomised) N2 control* N2 (studies OR study OR trial*)))
17. 15 AND 16

Table s2. Search strategies for mask reuse

Embase <3/30/2021>

Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations and Daily <3/30/2021>

1.exp coronavirus/
2.((corona* or corono*) adj1 (virus* or viral* or virinae*)).ti,ab,kw.
3.(coronavirus* or coronovirus* or coronavirinae* or Coronavirus* or Coronovirus* or Wuhan* or Hubei* or Huanan or "2019-nCoV" or 2019nCoV or nCoV2019 or "nCoV-2019" or "COVID-19" or COVID19 or "CORVID-19" or CORVID19 or "WN-CoV" or WNCoV or "HCoV-19" or HCoV19 or CoV or "2019 novel*" or Ncov or "n-cov" or "SARS-CoV-2" or "SARSCoV-2" or "SARSCoV2" or "SARS-CoV2" or SARSCov19 or "SARS-Cov19" or "SARSCov-19" or "SARS-Cov-19" or Ncovor or Ncorona* or Ncorono* or NcovWuhan* or NcovHubei* or NcovChina* or NcovChinese*).ti,ab,kw.
4. (((respiratory* adj2 (symptom* or disease* or illness* or condition*)) or "seafood market*" or "food market*") adj10 (Wuhan* or Hubei* or China* or Chinese* or Huanan*)).ti,ab,kw.
5.((outbreak* or wildlife* or pandemic* or epidemic*) adj1 (China* or Chinese* or Huanan*)).ti,ab,kw.
6.exp Coronavirus Infections/
7.OR/1-6
8.exp Masks/ OR exp Respiratory Protective Devices/ OR exp Personal Protective Equipment/
9.(mask* OR "personal protective equipment" OR "respiratory protective device*" OR "filtering face piece" OR FFP OR N95 OR N97 OR N99 OR respirator OR respirators OR ((Face* OR facial* OR head OR mouth OR nose OR respiratory) adj2 (cloth* OR cover* OR device* OR equipment OR filter* OR gear* OR mask* OR protect* OR scar* OR shield*))).ti,ab,kw. NOT (masking.ab. OR "fresh frozen plasma".ti,ab,kw.)
10.8 OR 9
11.exp Equipment Reuse/
12.(reuse OR "extended use").ti,ab,kw.
13.11 OR 12
14.10 AND 13
15.7 AND 14
16.english language
17.15 AND 16

18..yr="2019 -2020"
19.17 AND 18
20. coronavirus disease 2019'/exp
21. ((corona* OR corono*) NEAR/1 (virus* OR viral* OR virinae*)):ti,ab,kw
22. (coronavirinae* OR coronavirus* OR coronovirus* OR wuhan* OR hubei* OR huanan OR '2019-ncov' OR 2019ncov OR ncov2019 OR 'ncov-2019' OR 'covid-19' OR covid19 OR 'corvid-19' OR corvid19 OR 'wn-cov' OR wncov OR 'hcov-19' OR hcov19 OR cov OR '2019 novel*' OR ncov OR 'n-cov' OR 'sars-cov-2' OR 'sarscov-2' OR 'sarscov2' OR 'sars-cov2' OR sarscov19 OR 'sars-cov19' OR 'sarscov-19' OR 'sars-cov-19' OR ncovor OR ncorona* OR ncorono* OR ncovwuhan* OR ncovhubei* OR ncovchina* OR ncovchinese*):ti,ab,kw
23. (respiratory* NEAR/2 (symptom* OR disease* OR illness* OR condition*)):ti,ab,kw
24. (outbreak* OR wildlife* OR pandemic* OR epidemic*) NEAR/1 (china* OR chinese* OR huanan*)
25. (('seafood market*' OR 'food market*') NEAR/10 (wuhan* OR hubei* OR china* OR chinese* OR huanan*)):ti,ab,kw
26. coronavirus infection'/exp
27. OR/1-7
28. mask'/exp OR 'respiratory protection'/exp OR 'protective equipment'/exp
29. (mask* OR 'personal protective equipment' OR 'respiratory protective device*' OR 'filtering face piece' OR ffp OR n95 OR n97 OR n99 OR respirator OR respirators OR ((face* OR facial* OR head OR mouth OR nose OR respiratory) NEAR/2 (cloth* OR cover* OR device* OR equipment OR filter* OR gear* OR mask* OR protect* OR scar* OR shield*))):ti,ab,kw NOT (masking:ab OR 'fresh frozen plasma':ti,ab,kw)
30. 9 OR 10
31. (reuse OR "extended use"):ti,ab,kw
32. 11 AND 12
33. 8 AND 13
34. [english]/lim
35. 14 AND 15
36. [2019-2020]/py
37. 16 AND 17

COCHRANE <3/30/2021>

38. MeSH descriptor: [Coronavirus] explode all trees
39. ((corona* or corono*) NEXT (virus* or viral* or virinae*)):ti,ab,kw
40.. (coronavirus* or coronovirus* or coronavirinae* or Coronavirus* or Coronovirus* or Wuhan* or Hubei* or Huanan or "2019-nCoV" or 2019nCoV or nCoV2019 or "nCoV-2019" or "COVID-19" or COVID19 or "CORVID-19" or CORVID19 or "WN-CoV" or WNCoV or "HCoV-19" or HCoV19 or CoV or "2019 novel*" or Ncov or "n-cov" or "SARS-CoV-2" or "SARSCoV-2" or "SARSCoV2" or "SARS-CoV2" or SARSCov19 or "SARS-Cov19" or "SARSCov-19" or "SARS-Cov-19" or Ncovor or Ncorona* or Ncorono* or NcovWuhan* or NcovHubei* or NcovChina* or NcovChinese*):ti,ab,kw
41. (((respiratory* NEAR/2 (symptom* or disease* or illness* or condition*)) or "seafood market*" or "food market*") NEAR/10 (Wuhan* or Hubei* or China* or Chinese* or Huanan*)):ti,ab,kw
42. ((outbreak* or wildlife* or pandemic* or epidemic*) NEXT (China* or Chinese* or Huanan*)):ti,ab,kw
43. MeSH descriptor: [Coronavirus Infections] explode all trees
44. OR/1-6
45. MeSH descriptor: [Masks] this term only
46. MeSH descriptor: [Respiratory Protective Devices] this term only
47. MeSH descriptor: [Personal Protective Equipment] this term only
48. (mask* OR "personal protective equipment" OR "respiratory protective device*" OR "filtering face piece" OR ffp OR n95 OR n97 OR n99 OR respirator OR respirators OR ((face* OR facial* OR head OR mouth OR nose OR respiratory) NEAR/2 (cloth* OR cover* OR device* OR equipment OR filter* OR gear* OR mask* OR protect* OR scar* OR shield*))):ti,ab,kw NOT (masking:ab OR "fresh frozen plasma":ti,ab,kw)
49. OR/8-11
50. MeSH descriptor: [Equipment Reuse] explode all trees
51. (reuse OR "extended use")
52. 13 OR 14
53. 12 AND 15
54. 7 AND 16
55. 2019 to 2020
56. 17 AND 18

CINAHL

<3/30/2021>

57. MH "Coronavirus+"
58. ((corona* or corono*) N1 (virus* or viral* or virinae*)) (coronavirus* or coronovirus* or coronavirinae* or Coronavirus* or Coronovirus* or Wuhan* or Hubei* or Huanan or "2019-nCoV" or 2019nCoV or nCoV2019 or "nCoV-2019" or "COVID-19" or COVID19 or "CORVID-19" or CORVID19 or "WN-CoV" or WNCoV or "HCoV-19" or HCoV19 or CoV or "2019 novel*" or Ncov or "n-cov" or "SARS-CoV-2" or "SARSCoV-2" or "SARSCoV2" or "SARS-CoV2" or SARSCov19 or "SARS-Cov19" or "SARSCov-19" or "SARS-Cov-19" or Ncovor or Ncorona* or Ncorono* or NcovWuhan* or NcovHubei* or NcovChina* or NcovChinese*)
59. (((respiratory* N2 (symptom* or disease* or illness* or condition*)) or "seafood market*" or "food market*") N10 (Wuhan* or Hubei* or China* or Chinese* or Huanan*))
60. ((outbreak* or wildlife* or pandemic* or epidemic*) N1 (China* or Chinese* or Huanan*))
61. MH "Coronavirus Infections+"
62. OR/1-7
63. (MH "Masks+") OR (MH "Respiratory Protective Devices+") OR (MH "Personal Protective Equipment+")
64. (mask* OR "personal protective equipment" OR "respiratory protective device*" OR "filtering face piece" OR ffp OR n95 OR n97 OR n99 OR respirator OR respirators OR ((face* OR facial* OR head OR mouth OR nose OR respiratory) N2 (cloth* OR cover* OR device* OR equipment OR filter* OR gear* OR mask* OR protect* OR scar* OR shield*))) NOT masking
65. 9 OR 10
66. MH "Equipment Reuse"
67.MH "Equipment Reuse"
68. reuse OR "extended use"
69. 12 OR 13
70. 11 AND 14
71. 8 AND 15
72. english language
73. 16 AND 17
74. Published Date: 20190101-20201231
75. 18 AND 19

Table s3. Search strategies for eye protection

Embase <3/30/2021>

Ovid MEDLINE(R) and Epub Ahead of Print, In-Process, In-Data-Review & Other Non-Indexed Citations and Daily <3/30/2021>

1.exp coronavirus/
2.((corona* or corono*) adj1 (virus* or viral* or virinae*)).ti,ab,kw.
3. (coronavirus* or coronovirus* or coronavirinae* or Coronavirus* or Coronovirus* or Wuhan* or Hubei* or Huanan or "2019-nCoV" or 2019nCoV or nCoV2019 or "nCoV-2019" or "COVID-19" or COVID19 or "CORVID-19" or CORVID19 or "WN-CoV" or WNCoV or "HCoV-19" or HCoV19 or CoV or "2019 novel*" or Ncov or "n-cov" or "SARS-CoV-2" or "SARSCoV-2" or "SARSCoV2" or "SARS-CoV2" or SARSCov19 or "SARS-Cov19" or "SARSCov-19" or "SARS-Cov-19" or Ncovor or Ncorona* or Ncorono* or NcovWuhan* or NcovHubei* or NcovChina* or NcovChinese*).ti,ab,kw.
4. (((respiratory* adj2 (symptom* or disease* or illness* or condition*)) or "seafood market*" or "food market*") adj10 (Wuhan* or Hubei* or China* or Chinese* or Huanan*)).ti,ab,kw.
5. ((outbreak* or wildlife* or pandemic* or epidemic*) adj1 (China* or Chinese* or Huanan*)).ti,ab,kw.
6.exp Coronavirus Infections/
7.OR/1-6
8. exp Eye Protective Devices/ OR exp Lenses/
9. ((eye* OR ocular*) adj2 (cover* OR device* OR equipment OR gear* OR glasses OR goggle* OR mask* OR protect* OR shield* OR visor*)).ti,ab,kw.
10.8 OR 9
11. 7 AND 10
12. english language
13. 11 AND 12
14. yr="2019 -2020"
15. 13 AND 14
16. coronavirus disease 2019'/exp
17. ((corona* OR corono*) NEAR/1 (virus* OR viral* OR virinae*)):ti,ab,kw
18. (coronavirinae* OR coronavirus* OR coronovirus* OR wuhan* OR hubei* OR huanan OR '2019-ncov' OR 2019ncov OR ncov2019 OR 'ncov-2019' OR 'covid-19' OR covid19 OR 'corvid-19' OR corvid19 OR 'wn-cov' OR wncov OR 'hcov-19' OR hcov19 OR cov OR '2019 novel*' OR ncov OR 'n-cov' OR 'sars-cov-2' OR 'sarscov-2' OR 'sarscov2' OR 'sars-cov2' OR sarscov19 OR 'sars-cov19' OR 'sarscov-19' OR

'sars-cov-19' OR ncovor OR ncorona* OR ncorono* OR ncovwuhan* OR ncovhubei* OR ncovchina* OR ncovchinese*):ti,ab,kw
19. (respiratory* NEAR/2 (symptom* OR disease* OR illness* OR condition*)):ti,ab,kw
20. (outbreak* OR wildlife* OR pandemic* OR epidemic*) NEAR/1 (china* OR chinese* OR huanan*)
21. (('seafood market*' OR 'food market*') NEAR/10 (wuhan* OR hubei* OR china* OR chinese* OR huanan*)):ti,ab,kw
22. coronavirus infection'/exp
23. OR/1-7
24. ('eye protective device'/exp OR 'spectacles'/exp OR 'lens (optics)'/exp)
25. (eye* OR ocular*) NEAR/2 (cover* OR device* OR equipment OR gear* OR glasses OR goggle* OR mask* OR protect* OR shield* OR visor*)
26. 9 OR 10
27. 8 AND 11
28. [english]/lim
29. 20 AND 21
30. [2019-2020]/py
31. 22 AND 23

Cochrane <3/30/2021>

32. MeSH descriptor: [Coronavirus] explode all trees
33. ((corona* or corono*) NEXT (virus* or viral* or virinae*)):ti,ab,kw
34. (coronavirus* or coronovirus* or coronavirinae* or Coronavirus* or Coronovirus* or Wuhan* or Hubei* or Huanan or "2019-nCoV" or 2019nCoV or nCoV2019 or "nCoV-2019" or "COVID-19" or COVID19 or "CORVID-19" or CORVID19 or "WN-CoV" or WNCoV or "HCoV-19" or HCoV19 or CoV or "2019 novel*" or Ncov or "n-cov" or "SARS-CoV-2" or "SARSCoV-2" or "SARSCoV2" or "SARS-CoV2" or SARSCov19 or "SARS-Cov19" or "SARSCov-19" or "SARS-Cov-19" or Ncovor or Ncorona* or Ncorono* or NcovWuhan* or NcovHubei* or NcovChina* or NcovChinese*):ti,ab,kw
35. (((respiratory* NEAR/2 (symptom* or disease* or illness* or condition*)) or "seafood market*" or "food market*") NEAR/10 (Wuhan* or Hubei* or China* or Chinese* or Huanan*)):ti,ab,kw
36. ((outbreak* or wildlife* or pandemic* or epidemic*) NEXT (China* or Chinese* or Huanan*)):ti,ab,kw

37. MeSH descriptor: [Coronavirus Infections] explode all trees
38. OR/1-6
39. MeSH descriptor: [Eye Protective Devices] explode all trees
40. MeSH descriptor: [Lenses] explode all trees
41. (eye* OR ocular*) NEAR/2 (cover* OR device* OR equipment OR gear* OR glasses OR goggle* OR mask* OR protect* OR shield* OR visor*)
42. OR/8-10
43. 7 AND 11
44. 2019 to 2020
45. 12 AND 13

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46. MH "Coronavirus+"
47. ((corona* or corono*) N1 (virus* or viral* or virinae*))
48. (coronavirus* or coronovirus* or coronavirinae* or Coronavirus* or Coronovirus* or Wuhan* or Hubei* or Huanan or "2019-nCoV" or 2019nCoV or nCoV2019 or "nCoV-2019" or "COVID-19" or COVID19 or "CORVID-19" or CORVID19 or "WN-CoV" or WNCoV or "HCoV-19" or HCoV19 or CoV or "2019 novel*" or Ncov or "n-cov" or "SARS-CoV-2" or "SARSCoV-2" or "SARSCoV2" or "SARS-CoV2" or SARSCov19 or "SARS-Cov19" or "SARSCov-19" or "SARS-Cov-19" or Ncovor or Ncorona* or Ncorono* or NcovWuhan* or NcovHubei* or NcovChina* or NcovChinese*)
49. (((respiratory* N2 (symptom* or disease* or illness* or condition*)) or "seafood market*" or "food market*") N10 (Wuhan* or Hubei* or China* or Chinese* or Huanan*))
50. ((outbreak* or wildlife* or pandemic* or epidemic*) N1 (China* or Chinese* or Huanan*))
51. MH "Coronavirus Infections+"
52. OR/1-7
53. (MH "Eye Protective Devices") OR (MH "Lenses+")
54. (eye* OR ocular*) N2 (cover* OR device* OR equipment OR gear* OR glasses OR goggle* OR mask* OR protect* OR shield* OR visor*)
55. 9 OR 10
56. 8 AND 11

57. english language
58. 12 AND 13
59. Published Date: 20190101-20201130
60. 14 AND 15

PRISMA flow diagrams

Figure s1. PRISMA flow diagram for mask use

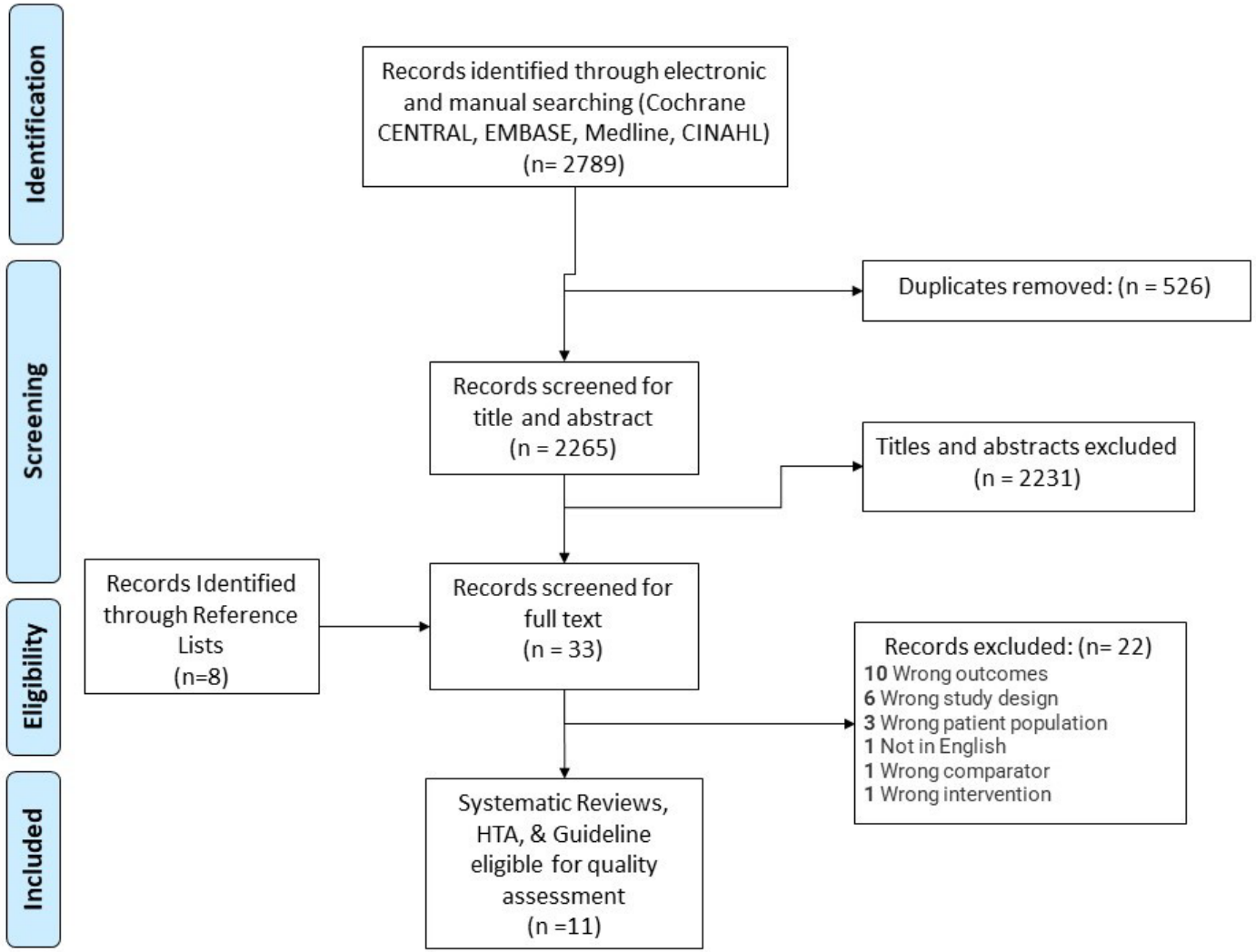


Figure s2. PRISMA flow diagram for mask reuse

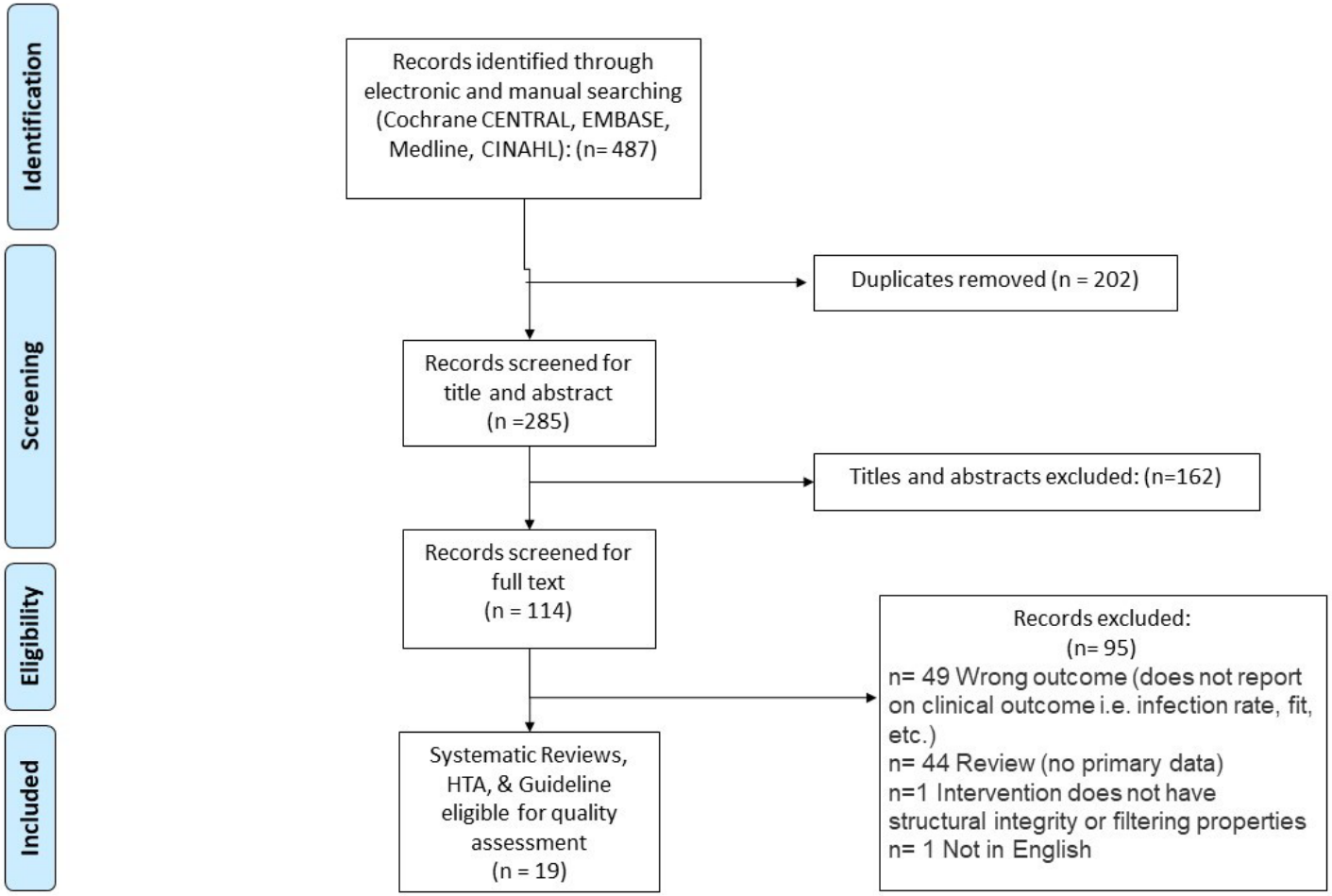
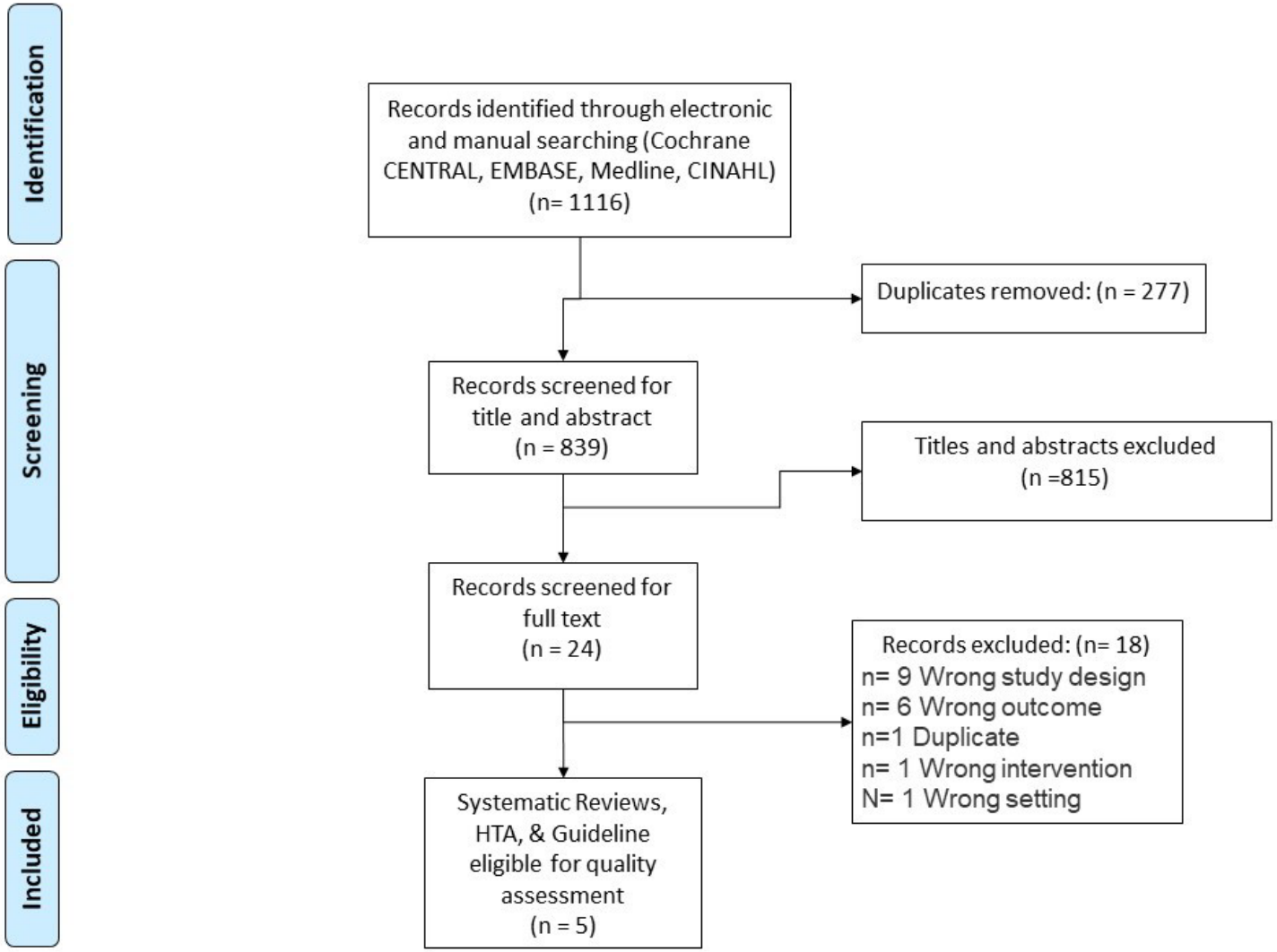


Figure s3. PRISMA flow diagram for eye protection



Mask use for healthcare personnel caring for persons with suspected or known COVID-19

Table s4. Study characteristics

Study Label **Country**	**Design** **Settings** **Study period**	**Population** **Methods**	**Type of mask**	**Outcomes Reported in study**
Sims [1] November 2020 USA-Detroit	Cross-Sectional HCP & hospital Admin April 13- May 28 2020	20,614 participants who had healthcare roles (Frontline workers such as nurses, respiratory therapists, and physicians who had direct contact with COVID-19 patients, as well as support staff and administrator), employed at Beaumont Health (8 hospital in Detroit area) *Participants were then required to answer an Employee Health Assessment with questions about job function, exposure risk, patient contact, history of symptoms, prior COVID-19 diagnosis, medical history. *Everyone had antibody test with SARS-CoV-2 IgG assay (EUROIMMUN, Lübeck, Germany) Mean age: 43.1	Surgical mask N95 or PAPR	1,818/ 20,614 (8.8%) were seropositive 18,441/20,614 (89.5%) were seronegative - 76.0% (95% CI: 75.1%–76.8%) reported wearing a mask - 721/ 6,624 10.9% (95% CI: 10.1%–11.6%) Seropositivity in those wearing any type of mask - 369/2,109 17.5%; (95% CI: 16.0- 19.2%) Seropositivity not wearing any type of mask - 540/5242 10.3% (95% CI: 9.5%–11.1%) N95 /PAPR - 182/1390 13.1%; (95% CI: 11.4%–14.9%)
Akinbami [2] December 2020 USA-Detroit	Cross-sectional HCP & public safety May 18-June 13 2020	Samples from 16,397 adults 18+ who worked onsite in first response, hospital, or public safety setting (police & firefighters) - Web-based survey - Antibody testing was performed to all participants Mean age: 42.1	Surgical mask N95 or PAPR	6.9% were positive for SARS-CoV-2 505/7,316 6.9% seropositive N95 /PAPR 624/9,452 6.6% seropositive surgical mask aOR 0.83, 95% CI 0.72–0.95 Consistently N95 respirator vs. sometimes aOR 0.86, 95% CI 0.75–0.98 all the time surgical facemask vs. sometimes * Multivariable models, including sex, age group, race contact place, PPE housing AGP. Exposure to COVID (co-worker, household, patient), occupation, workplace (ED, ICU, fire service, police)

Chen [3] June 2020 China	Cross-sectional HCP Jan 28 - Feb 5, 2020	105 HCP (colleague, doctor, nurse, general service assistant) exposed to 4 Covid-19 positive patients *First day of their quarantine, each HCP was asked to complete a questionnaire *Serum samples were collected on 14 th day of the quarantine they were also tested to determine IgM and IgG responses	Disposable non-surgical face mask	Seropositive close contacts= 18/105 Wearing disposable non-surgical face mask 10/18 Seronegative close contacts= 87/105 Wearing disposable non-surgical face mask 68/87 uOR 0.349 (0.121, 1.008) aOR 0.127 (0.017, 0.968) 0.046
Piapan [4] August 2020 Italy	Cross-sectional HCP March-April 2020	903 HCP in public hospitals reported contact with Covid-19 positive patients *Interviewed *PCR testing	Surgical masks FFP2-3 masks	115 were Covid-19 positive 788 were Covid-19 negative (however, data was only available for 144 Covid-19 negative workers) Positive: 50/115 Used surgical mask, 32/115 Used FFP2-3 Negative: 91/144 Used surgical mask, 8/144 Used FFP2-3
Khalil [5] August 2020 Bangladesh	Case-control HCP May-June 2020	98 COVID-19 positive physicians, matched with 92 COVID-19 negative physicians (defined as physicians with no symptoms or who tested negative) and had known or unknown interactions with Covid-19 patients PCR * Questionnaire	Masks-unspecified N95's	Medical/surgical mask: Case 89/92 (96.7%) Control 85/89 (95.5%) uOR 1.396 [0.303–6.423]
Chatterjee [6] May 2020 India	Case-control HCP April-May 2020	378 cases, mean age= 34.73 373 controls, mean age= 33.47 - Symptomatic HCP tested positive on PCR= cases - Symptomatic HCP tested negative on PCR= controls	Mask use-unspecified	Any mask use 310/378 No mask use 68/378 uOR 0.35; 0.22-0.57

		- 20-item interview schedule asked of participants		
Kohler [7] October 2020 Switzerland	Retrospective cohort HCP March 19 and April 3, 2020	1,012 hospital workers (≥16 years) from 2 tertiary-care hospitals, who already had Ab testing * Online questionnaire applied	Any mask	Wearing mask during patient contact 3/565 (0.53%) No mask 7/234 (2.99%) uOR 0.17 (95% CI 0.04-0.68)
X. Wang [8] March 2020 China	Retrospective cohort HCP January 2-22	Total 493 medical staff 278 staff members in department of Respiratory Medicine, ICU, ID wore N95's 213 staff members in Hepatobiliary Pancreatic Surgery, Trauma, Microsurgery, Urology did not wear medical masks	N95's	0/278 staff members became infected 10/213 staff members became infected and confirmed Difference 4.65%, (95% confidence interval: 1.75einfinite); adjusted odds ratio: 464.82, (95% confidence interval: 97.73einfinite)
Ambrosch [9] December 2020 Germany	Retrospective cohort Inpatient March 1- June 10 2020	Total 6106 patients classified as "suspicious" for Covid-19 197/1061 were classified as suspicious before the intervention 828/5045 were classified as suspicious after intervention (hygiene bundle)	Surgical masks	27/197 (13.7%) patients with 'conspicuous respiratory symptoms' tested positive for Covid-19 with standard protocol 86/828 (10.3%) patients with 'conspicuous respirator symptoms' tested positive for Covid-19 with intervention
Murakami [10] December 2020 USA	Cross-sectional ED HCP May 26-June 14 2020	Total 138 HCP enrolled	N95	7/138 were IgG Covid positive 29% of IgG negative HCP reported wearing an N95 with every patient 15% of IgG positive HCP reported wearing an N95 with every patient
Schmitz [11] 2020 Denmark	Cross-sectional ED HCP March 1- May 15 2020	High level of protection hospitals" (13) – confirmed 73/944 [7.3 (3.4–11.1)], Suspected 8/944 [0.9 (0.0–2.2)], Suspected + confirmed 81/944 [8.2 (4.5–11.9)] "Other hospitals" (30)- confirmed 91/2099 [4.0 (1.9–6.1)], suspected 61/2099 [2.4 (0.8–4.1)], suspected + confirmed 152/2099[6.4 (3.9–9.1)] PCR	FFP2	164/3064 [5.1 (3.2–7.0) %] permanent ED doctors and nurses tested positive for SARS-CoV-2 In hospitals where FFP-2 masks AND eye protection were worn during all patient contacts throughout the whole study period (13) , 7.3 (3.4–11.1) % of personnel met the prespecified primary outcome (confirmed SARS-CoV-2 infection during the study period), compared to 4.0 (1.9–6.1)% in other hospitals

Table s5. Risk of bias for non-randomized studies (N95/medical mask vs. no mask)

Study	Bias due to confounding	Selection Bias	Bias in classification of interventions	Bias due to deviations from interventions	Bias due to missing data	Bias in measurement of outcomes	Bias in selection of reported results
Sims 2020 [1]							

Low	Moderate	Serious	Critical

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Mask reuse for healthcare personnel caring for persons with suspected or known COVID-19

Table s6. Study characteristics for mask decontamination techniques

Decontamination	Study label Country	Model used / company	Effectiveness measurement method	Outcome filtration /fit	NIOSH compliant
Hydrogen Peroxide					
Vaporized hydrogen peroxide (VHP)	Fischer 2020 [1]	N95s does not specify	Quantitative fit testing (Not specified fit factors measuring equipment) 2 hr use →contamination with SARS-CoV-2 →decontamination→fit factors measurement = 1 cycle	N95 respirators can be decontaminated and reused up to 3 cycles	yes
	Levine 10/2020 [2]	Fluidshield N95 46727 3M 1860 3M 1870 3M 9210	Quantitative fit testing by using PortaCount equipment for fit factors testing	3M 1860/3M 1860S 8 cycles 3M 1870 6 cycles 3M 9210 N95 7 cycles Fluidshield 46727 failed 8 cycles	yes
	Lieu 2020 [3]	1860(S) 1870+ Moldex151X Pro-Gear	Quantitative fit testing (Not specified fit factors measuring equipment) failure of the fit test defined as: (1) leak detected on fit-test (2) mechanical failure rupture of the elastic bands 4hr use the N95, →VHP →fit test = 1 cycle	36 HCWs Cycles needed to fail fit testing 1860(S): 1 1870+: 3 Moldex151X: 5 Pro-Gear: 4	Yes
	Maranhao 5/2020 [4] USA	1860, 1804 VFlex	Quantitative fit testing (Not specified fit factors measuring equipment) -Number of times a respirator was sterilized before fit failure	-high failure rates 4 days – cycles (46%), but multiple donning and doffing per day	Yes

Decontamination	Study label Country	Model used / company	Effectiveness measurement method	Outcome filtration /fit	NIOSH compliant
Plasma-hydrogen peroxide	Ibanez-Cervantes 2020 [5]	8210	SARS-CoV-2 detection	Hydrogen peroxide plasma inhibited the detection of the SARS-CoV-2	Yes
Ionized-hydrogen peroxide	Cramer 5.2020 [6]	KC/Halyard 46767, 3M1860, 3M8210	(1) Filtration efficiency to assess for ability to filter particles down to 0.3µm was measured using aerosolized NaCl challenge by NIOSH precertification (2) PortaCount equipment for fit testing	6 masks 2 of each model (1) All models pass filtration efficiency after 5 cycles (2) All 3 models pass fit factors >200 after 10 cycles	yes
Ultraviolet (UV) electromagnetic radiation					
UV light (260–285 nm)	Fischer 2020 [1]	N95s does not specify	Quantitative fit testing (Not specified fit factors measuring equipment) 2 hr use →contamination with SARS-CoV-2 →decontamination→fit factors measurement = 1 cycle	N95 respirators can be decontaminated and reused up to 3 cycles	yes
UVC (1.5 J/cm2)	Ozog 8.2020 [7]	1860, 8210, 8511, 9211; Moldex1511	Four different locations of the N95 were inoculated with a 10 mL drop of SARS-CoV-2 → UVC used → Viable SARS-CoV-2 was quantified by a median tissue culture	1.5 J/cm2was an effective method of decontamination for 3M 1860 and Moldex 1511, and for the straps of 3M 8210 and the Moldex 1511.	yes
Heating with moisture					
Steam sterilization	Aljabo 10/2020 [8] Canada	3M 1860, 3M 1860s 3M 1870þ, VFlex9105	(1)Quantitative fit testing by using PortaCount equipment for fit factors testing (2) Efficacy testing with Geobacillus stearothermophilus spore (3) Strap integrity	Filtration: 1860 had statistically significant filtration efficiency reduction of <2% - Fit evaluation: 1860 model had significant decrease in overall fit factor after 3 cycles	Yes

Decontamination	Study label Country	Model used / company	Effectiveness measurement method	Outcome filtration /fit	NIOSH compliant
			Exposure to steam 121°C for 30 min→ 30 min of drying → fittest= 1 cycle	- Strap: 1870 and 9150 showed statistically significant decreases in strap tensile force in top strap for 1870 and bottom strap for 9150 after 3 cycles	
	Carillo 12/2020 [9] USA	3M 1870 M3 1870þ	Quantitative fit testing by using PortaCount equipment for fit factors testing	Both masks retained efficacy in quantitative fit test (structural integrity and efficacy) for 3 cycles	Yes
	Zulauf 6/2020 [10] USA	1860	Quantitative fit testing by using PortaCount equipment for fit factors testing	-fit factors>100, seal, and filtration were preserved even after 20 consecutive treatments -after 20 3-min treatment cycles, no damage was evident in the integrity of the respirators or their component parts (i.e., straps, foam fittings, nosepiece)	Yes
50% relative humidity (RH)	Daeschler 10/2020 [11] Canada	8110s, 9105s, 8210 and 1860s	(1)Quantitative fit testing by using PortaCount equipment for fit factors testing (2)Microstructural analysis of N95 Filter Layer- fiber diameter (3) Viral inactivation after disinfection 60 minute dry heat at 70C at 50% RH= 1 cycle	-Structural: After 10 cycles, mean overall fiber diameter remained within range for unprocessed N95 filters as specified in US patent - No infectious SARS-CoV-2 detected -Fit Testing 138 preformed: After 15 cycles all groups of respirators significantly exceeded fit factor of 100	Yes
Moisture (85°C, 60-85% humidity)	Anderegg 7.2020 [12]	3M 1860, 3M 1870, 3M 8210 Plus	PortaCount Respirator Fit Tester 8038 using NaCl particles of 0.26 µm (mass mean diameter) NaCl at a flow rate of 85 L/min in most common positions	3M 1860, 3M 1870, and 3M 8210 Plus N95 models. After five cycles of the heating procedure, all three respirators pass both quantitative fit testing (score of >100) and show no degradation of mask filtration efficiency	Yes
Autoclave					
Dry heat 70°C	Daeschler 10/2020 [11] Canada	8110s, 9105s, 8210 and 1860s	SARS-CoV-2 inactivation- 60 minute dry heat at 70°C	No infectious SARS-CoV-2 detected No fit measures	No

Decontamination	Study label Country	Model used / company	Effectiveness measurement method	Outcome filtration /fit	NIOSH compliant
	Fischer 2020 [1]	N95s does not specify	Quantitative fir testing 2 hr use →contamination with SARS CoV 2 →decontamination 70°C dry heat →fit factors machine measurement = 1 cycle	N95 respirators can be decontaminated and reused up to 3 times by using UV light and HPV and 1–2 times by using dry heat	No
Dry heat 121°C	Czubryt 7.2020 [13] Canada	Pleats Plus N95 Respirator 1054S	Quantitative fit testing by using PortaCount equipment for fit factors testing 2-8hr use the N95, →autoclave 121°C for 30 min plus 15 min drying time →fit test = 1 cycle	14 volunteers 2nd cycles of sterilization had (2/14) 14% failure in fit factors <100	No
Dry heat 100°C for 50 min	Oh 2020 [14]	3M 1860	(1) Decontamination efficacy measured by viral inactivity (Tulane virus, adenovirus, rotavirus and transmissible gastroenteritis virus) (2) Filtration efficacy by using using aerosolized NaCl challenge (3) Quantitative Fit Testing was following the modified ambient aerosol condensation nuclei counter testing protocol	N95 can be decontaminated up to 20 cycles but the decontamination was not tested on SARS-CoV-2	No
Ethanol					
70% ethanol	Fischer 2020 [1]	N95s does not specify	Quantitative fit testing 2-hour use →contamination with SARS-CoV-2 →decontamination→fit factors machine measurement = 1 cycle	Inactivation of SARS-CoV-2 reduced N95 integrity	No

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Eye protection for healthcare personnel caring for persons with suspected or known COVID-19

Table s7. Risk of bias for non-randomized studies (use of eye protection vs. no eye protection)

Study	Bias due to confounding	Selection Bias	Bias in classification of interventions	Bias due to deviations from interventions	Bias due to missing data	Bias in measurement of outcomes	Bias in selection of reported results
Schmitz 2020 [1]							
Akinbami 2020 [2]							
Khalil 2020 [3]							
Chaterjee 2020 [4]							
Bhaskar 2020 [5]							

Low	Moderate	Serious	Critical

References

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