

**Literature search results**

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| **Search reference number** | 5034 | **Search completed on** | 27/05/2020 |
| **Search completed for** |  | | |
| **Search completed by** | Eva Thackeray (extension 4763, email [eva.thackeray@lthtr.nhs.uk](mailto:eva.thackeray@lthtr.nhs.uk)) | | |

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| **Search question** |
| Personal protective equipment use in COVID 19 and aerosol generating procedures. |

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| **Search strategy** |
| Resources used: Google, Public Health England, NICE Evidence Search, PubMed, Embase, WHO Covid-19 database |
| Search terms: See full strategy below, as requested. |
| Limits: 2015-2020, English |

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| **Summary** |
| **Overview of results**  This topic has generated a large debate because there is no definitive consensus on which procedures are aerosol-generating procedures. To get an overview, I suggest you look at the Public Health England (PHE) guidance first. If you look at the other results after that, however, you will see that many professional associations argue for the inclusion of other procedures that are not in the PHE guidance.  See below (page 5 onwards) for guidance and reports, listed in date order with the most recent first. You can re-sort the table, by source for example, if you wish; if you need help with this, please let me know.  Journal articles are listed separately in the PubMed and Embase attachments. As requested, I have also saved the article results as RIS files, so that you can import them into your referencing software, e.g. Endnote.  If you need further help with this topic, please feel free to contact me.  **Search strategy**  I searched Google, Public Health England, NICE Evidence Search and the WHO Covid-19 database with various combinations of the following terms:  Covid, aerosol generating procedures, PPE  PubMed  For the Covid-19 search terms, I adapted a search strategy developed by NICE (<https://kfh.libraryservices.nhs.uk/wp-content/uploads/2020/04/COVID-saved-searches-current-strategies-shareable.docx>)  *Covid-19*  (covid\*[tiab] OR coronavirus\*[tiab] OR coronovirus\*[tiab] OR coronavirinae\*[tiab] OR CoV[tiab] OR "2019-nCoV"[tiab] OR 2019nCoV[tiab] OR nCoV2019[tiab] OR "nCoV-2019"[tiab] OR "COVID-19"[tiab] OR COVID19[tiab] OR "CORVID-19"[tiab] OR CORVID19[tiab] OR "WN-CoV"[tiab] OR WNCoV[tiab] OR "HCoV-19"[tiab] OR HCoV19[tiab] OR 2019 novel\*[tiab] OR Ncov[tiab] OR "n-cov"[tiab] OR "SARS-CoV-2"[tiab] OR "SARSCoV-2"[tiab] OR "SARSCoV2"[tiab] OR "SARS-CoV2"[tiab] OR SARSCov19[tiab] OR "SARS-Cov19"[tiab] OR "SARSCov-19"[tiab] OR "SARS-Cov-19"[tiab] OR Ncovor[tiab] OR Ncorona\*[tiab] OR Ncorono\*[tiab] OR NcovWuhan\*[tiab] OR NcovHubei\*[tiab] OR NcovChina\*[tiab] OR NcovChinese\*[tiab] OR SARS2[tiab] OR "SARS-2"[tiab] OR SARScoronavirus2[tiab] OR "SARS-coronavirus-2"[tiab] OR "SARScoronavirus 2"[tiab] OR "SARS coronavirus2"[tiab] OR SARScoronovirus2[tiab] OR "SARS-coronovirus-2"[tiab] OR "SARScoronovirus 2"[tiab] OR "SARS coronovirus2"[tiab] OR "severe acute respiratory syndrome\*"[tiab] OR "Coronavirus"[Mesh] OR "Coronavirus Infections"[Mesh] OR "COVID-19"[Supplementary Concept] ) = 38084  *PPE*  ppe[tiab] OR "personal protective equipment"[tiab] OR "Personal Protective Equipment"[Mesh] = 34038  *Aerosol generating procedures*  aerosol\*[tiab] OR airborne[tiab] OR "Aerosols"[Mesh] = 74053  *Covid-19 + PPE + Aerosol generating procedures*  ((covid\*[tiab] OR coronavirus\*[tiab] OR coronovirus\*[tiab] OR coronavirinae\*[tiab] OR CoV[tiab] OR "2019-nCoV"[tiab] OR 2019nCoV[tiab] OR nCoV2019[tiab] OR "nCoV-2019"[tiab] OR "COVID-19"[tiab] OR COVID19[tiab] OR "CORVID-19"[tiab] OR CORVID19[tiab] OR "WN-CoV"[tiab] OR WNCoV[tiab] OR "HCoV-19"[tiab] OR HCoV19[tiab] OR 2019 novel\*[tiab] OR Ncov[tiab] OR "n-cov"[tiab] OR "SARS-CoV-2"[tiab] OR "SARSCoV-2"[tiab] OR "SARSCoV2"[tiab] OR "SARS-CoV2"[tiab] OR SARSCov19[tiab] OR "SARS-Cov19"[tiab] OR "SARSCov-19"[tiab] OR "SARS-Cov-19"[tiab] OR Ncovor[tiab] OR Ncorona\*[tiab] OR Ncorono\*[tiab] OR NcovWuhan\*[tiab] OR NcovHubei\*[tiab] OR NcovChina\*[tiab] OR NcovChinese\*[tiab] OR SARS2[tiab] OR "SARS-2"[tiab] OR SARScoronavirus2[tiab] OR "SARS-coronavirus-2"[tiab] OR "SARScoronavirus 2"[tiab] OR "SARS coronavirus2"[tiab] OR SARScoronovirus2[tiab] OR "SARS-coronovirus-2"[tiab] OR "SARScoronovirus 2"[tiab] OR "SARS coronovirus2"[tiab] OR "severe acute respiratory syndrome\*"[tiab] OR "Coronavirus"[Mesh] OR "Coronavirus Infections"[Mesh] OR "COVID-19"[Supplementary Concept] )) AND (ppe[tiab] OR "personal protective equipment"[tiab] OR "Personal Protective Equipment"[Mesh]) AND (aerosol\*[tiab] OR airborne[tiab] OR "Aerosols"[Mesh]) = 148  With the Filter: English applied = 139  *Covid-19 + PPE*  I checked this combination too, to make sure I had not missed any broader guidelines or articles.  (covid\*[tiab] OR coronavirus\*[tiab] OR coronovirus\*[tiab] OR coronavirinae\*[tiab] OR CoV[tiab] OR "2019-nCoV"[tiab] OR 2019nCoV[tiab] OR nCoV2019[tiab] OR "nCoV-2019"[tiab] OR "COVID-19"[tiab] OR COVID19[tiab] OR "CORVID-19"[tiab] OR CORVID19[tiab] OR "WN-CoV"[tiab] OR WNCoV[tiab] OR "HCoV-19"[tiab] OR HCoV19[tiab] OR 2019 novel\*[tiab] OR Ncov[tiab] OR "n-cov"[tiab] OR "SARS-CoV-2"[tiab] OR "SARSCoV-2"[tiab] OR "SARSCoV2"[tiab] OR "SARS-CoV2"[tiab] OR SARSCov19[tiab] OR "SARS-Cov19"[tiab] OR "SARSCov-19"[tiab] OR "SARS-Cov-19"[tiab] OR Ncovor[tiab] OR Ncorona\*[tiab] OR Ncorono\*[tiab] OR NcovWuhan\*[tiab] OR NcovHubei\*[tiab] OR NcovChina\*[tiab] OR NcovChinese\*[tiab] OR SARS2[tiab] OR "SARS-2"[tiab] OR SARScoronavirus2[tiab] OR "SARS-coronavirus-2"[tiab] OR "SARScoronavirus 2"[tiab] OR "SARS coronavirus2"[tiab] OR SARScoronovirus2[tiab] OR "SARS-coronovirus-2"[tiab] OR "SARScoronovirus 2"[tiab] OR "SARS coronovirus2"[tiab] OR "severe acute respiratory syndrome\*"[tiab] OR "Coronavirus"[Mesh] OR "Coronavirus Infections"[Mesh] OR "COVID-19"[Supplementary Concept] ) AND (ppe[ti] OR "personal protective equipment"[ti] OR "Personal Protective Equipment"[Majr]) Filters: English, from 2015 – 2020 = 174  PTO for the Embase strategy  Embase   |  |  |  |  | | --- | --- | --- | --- | | # | Database | Search term | Results | | 1 | EMBASE | (covid\* OR coronavirus\* OR coronovirus\* OR coronavirinae\* OR CoV 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 "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\* OR SARS2 OR "SARS-2" OR SARScoronavirus2 OR "SARS-coronavirus-2" OR "SARScoronavirus 2" OR "SARS coronavirus2" OR SARScoronovirus2 OR "SARS-coronovirus-2" OR "SARScoronovirus 2" OR "SARS coronovirus2" OR "severe acute respiratory syndrome\*").ti,ab | 33071 | | 2 | EMBASE | exp CORONAVIRINAE/ | 14361 | | 3 | EMBASE | exp "CORONAVIRUS INFECTION"/ | 13570 | | 4 | EMBASE | (1 OR 2 OR 3) | 41450 | | 5 | EMBASE | (ppe OR "personal protective equipment").ti,ab | 6827 | | 6 | EMBASE | exp "PROTECTIVE EQUIPMENT"/ | 53612 | | 7 | EMBASE | (5 OR 6) | 57744 | | 8 | EMBASE | (aerosol\* OR airborne).ti,ab | 82986 | | 9 | EMBASE | exp AEROSOL/ | 52827 | | 10 | EMBASE | (8 OR 9) | 99769 | | 11 | EMBASE | (4 AND 7 AND 10) | 178 | | 12 | EMBASE | 11 [DT 2015-2020] [English language] | 137 | | 13 | EMBASE | (ppe OR "personal protective equipment").ti | 837 | | 14 | EMBASE | \*"PROTECTIVE EQUIPMENT"/ | 4529 | | 15 | EMBASE | (13 OR 14) | 4897 | | 16 | EMBASE | (4 AND 15) | 204 | | 17 | EMBASE | 16 NOT 11 | 167 | | 18 | EMBASE | 17 [DT 2015-2020] [English language] | 145 | |

