

Supplementary Appendix S1. Full search strategies

S1.0. Overview

Databases/platforms: MEDLINE (via PubMed), Embase (via Ovid), Cochrane Library (CENTRAL).

Other sources: WHO; Polish Ministry of Health (MZ); Chief Sanitary Inspectorate / PZH (GIS/PZH) (screened as prespecified in the PROSPERO protocol).

Search approach: controlled vocabulary (MeSH/Emtree) and free-text terms.

Publication date limits: 2020–2022.

Language limits: English OR Polish in PubMed and Embase; no language limits in Cochrane Library (CENTRAL).

Last searched: January 2025 (all databases).

Note: The search strings shown in the main manuscript are simplified representations; full database-specific strategies are reported below to ensure reproducibility.

S1.1. MEDLINE (via PubMed)

Database/platform: MEDLINE via PubMed

Fields: MeSH + Title/Abstract

Limits: 2020/01/01–2022/12/31; English OR Polish

Last searched: January 2025

Search strategy:

("COVID-19"[Mesh] OR "SARS-CoV-2"[Mesh]

OR covid*[tiab] OR "COVID 19"[tiab]

OR "SARS-CoV-2"[tiab] OR "SARS CoV 2"[tiab]

OR "2019-nCoV"[tiab] OR coronavirus*[tiab])

AND

("Health Personnel"[Mesh]

OR "healthcare worker*[tiab] OR "health care worker*[tiab] OR HCW*[tiab]

OR "health personnel"[tiab] OR "medical staff"[tiab] OR "hospital staff"[tiab]

OR physician*[tiab] OR doctor*[tiab] OR nurse*[tiab]

OR "medical student*" [tiab]

OR paramedic*[tiab] OR physiotherapist*[tiab] OR pharmacist*[tiab] OR dentist*[tiab]

AND ("Poland"[Mesh] OR Poland[tiab] OR Polish[tiab])

AND ("2020/01/01"[dp] : "2022/12/31"[dp])

AND (english[la] OR polish[la])

S1.2. Embase (via Ovid)

Database/platform: Embase via Ovid

Fields: Emtree + Title/Abstract/Keyword (ti,ab,kw)

Limits: Year 2020–2022; English OR Polish

Last searched: January 2025

Search strategy (Ovid syntax):

1. exp coronavirus disease 2019/ OR exp severe acute respiratory syndrome coronavirus 2/
2. (covid* OR "COVID 19" OR "SARS-CoV-2" OR "SARS CoV 2" OR "2019-nCoV" OR coronavirus*).ti,ab,kw.
3. 1 OR 2
4. exp health care personnel/ OR exp health personnel/ OR exp physician/ OR exp nurse/ OR exp medical student/
5. ("healthcare worker*" OR "health care worker*" OR HCW* OR "health personnel"
OR "medical staff" OR "hospital staff"
OR physician* OR doctor* OR nurse* OR "medical student*"
OR paramedic* OR physiotherapist* OR pharmacist* OR dentist*).ti,ab,kw.
6. 4 OR 5
7. exp Poland/ OR (Poland OR Polish).ti,ab,kw.
8. 3 AND 6 AND 7
9. limit 8 to yr="2020 - 2022"
10. limit 9 to (english or polish)

S1.3. Cochrane Library (CENTRAL)

Database/platform: Cochrane Library (CENTRAL)

Fields: MeSH descriptors + Title/Abstract/Keyword

Limits: Publication year 2020–2022; no language limits applied

Last searched: January 2025

Search strategy (Cochrane syntax):

#1 MeSH descriptor: [COVID-19] explode all trees

#2 MeSH descriptor: [SARS-CoV-2] explode all trees

#3 (covid* OR "COVID 19" OR "SARS-CoV-2" OR "SARS CoV 2" OR "2019-nCoV" OR coronavirus*):ti,ab,kw

#4 #1 OR #2 OR #3

#5 MeSH descriptor: [Health Personnel] explode all trees

#6 ("healthcare worker*" OR "health care worker*" OR HCW* OR "health personnel"

OR "medical staff" OR "hospital staff"

OR physician* OR doctor* OR nurse* OR "medical student*"

OR paramedic* OR physiotherapist* OR pharmacist* OR dentist*):ti,ab,kw

#7 #5 OR #6

#8 MeSH descriptor: [Poland] explode all trees

#9 (Poland OR Polish):ti,ab,kw

#10 #8 OR #9

#11 #4 AND #7 AND #10

Limits applied in the interface: Publication year 2020–2022; no language filter applied

S1.4. Grey literature / institutional sources (screened as prespecified in PROSPERO)

WHO COVID-19 dashboard/reports: <https://data.who.int/dashboards/covid19/cases>

Polish Ministry of Health (MZ) COVID-19 reports: <https://www.gov.pl/web/koronawirus/wykaz-zarazen-koronawirusemsars-cov-2>

Chief Sanitary Inspectorate / PZH portal: <https://www.pzh.gov.pl/koronawirussars-cov-2/>

Screening scope: documents potentially reporting primary quantitative data among HCWs in Poland relevant to SARS-CoV-2 exposure (seroprevalence/incidence), PPE availability/use, IPC training, and vaccination coverage within 2020–2022.

Outcome: no documents met inclusion criteria as eligible primary quantitative studies; therefore, none were included in the evidence synthesis.

S1.5. Additional identification methods

Citation chasing: reference lists of included studies were screened for additional eligible studies.

Hand-searching: targeted manual screening of Polish-language journals focusing on infection prevention/control and staff health topics.

S1.6. PRISMA compliance statement

Full database-specific strategies, including filters and limits, are reported to support reproducibility in line with PRISMA 2020 and PRISMA-S guidance.