

Appendix 1: search strategy

The strategies for searching PubMed, Embase, Cochrane Library, and Web of Science.

| PubMed (Aug 10, 2023) | | |
|-----------------------|--|-------------|
| Search | Query | Items found |
| #1 | "Idiopathic Pulmonary Fibrosis"[MeSH Terms] | 8,206 |
| #2 | "Idiopathic Pulmonary Fibrosis"[Title/Abstract] OR "IPF"[Title/Abstract] | 13,543 |
| #3 | #1 OR #2 | 15,594 |
| #4 | "mortality"[MeSH Terms] | 424,799 |
| #5 | "mortality"[Title/Abstract] OR "mors"[Title/Abstract] OR "mortalit"[Title/Abstract] OR "died"[Title/Abstract] OR "die"[Title/Abstract] OR "dying"[Title/Abstract] OR "death"[Title/Abstract] OR "fatal"[Title/Abstract] OR "decease"[Title/Abstract] OR "in-hospital death"[Title/Abstract] OR "inhospital death"[Title/Abstract] | 2,999,378 |
| #6 | #4 OR #5 | 3,112,899 |
| #7 | "Risk Factors"[MeSH Terms] | 968,764 |
| #8 | "Risk Factors"[Title/Abstract] OR "risk factor"[Title/Abstract] OR "influencing factor"[Title/Abstract] OR "influence factor"[Title/Abstract] OR "affecting factor"[Title/Abstract] OR "relevant factor"[Title/Abstract] OR "correlative factor"[Title/Abstract] OR "associated factor"[Title/Abstract] OR "Predicting factor"[Title/Abstract] OR "related factor"[Title/Abstract] | 905,009 |
| #9 | #7 OR #8 | 1,505,749 |
| #10 | #3 AND #6 AND #9 | 652 |

MeSH, Medical Subject Headings.

| Embase (Aug 10, 2023) | | |
|-----------------------|--|-------------|
| Search | Query | Items found |
| #1 | 'mortality'/exp | 1,420,313 |
| #2 | 'mortality':ab,ti OR 'mors':ab,ti OR 'mortalit':ab,ti OR 'died':ab,ti OR 'die':ab,ti OR 'dying':ab,ti OR 'death':ab,ti OR 'fatal':ab,ti OR 'decease':ab,ti OR 'in-hospital death':ab,ti OR 'inhospital death':ab,ti | 4,268,037 |
| #3 | #1 OR #2 | 4,593,448 |
| #4 | 'idiopathic pulmonary fibrosis':ab,ti OR 'ipf':ab,ti | 24,144 |
| #5 | 'Risk Factors':ab,ti OR 'risk factor':ab,ti OR 'influencing factor':ab,ti OR 'influence factor':ab,ti OR 'affecting factor':ab,ti OR 'relevant factor':ab,ti OR 'correlative factor':ab,ti OR 'associated factor':ab,ti OR 'Predicting factor':ab,ti OR 'related factor':ab,ti | 1,283,912 |
| #6 | #3 AND #4 AND #5 | 728 |

Cochrane Library (Aug 10, 2023)

| Search | Query | Items found |
|--------|---|-------------|
| #1 | MeSH descriptor: [Idiopathic Pulmonary Fibrosis] explode all trees | 492 |
| #2 | ("idiopathic pulmonary fibrosis"):ti,ab,kw OR ("IPF"):ti,ab,kw | 1,761 |
| #3 | #1 OR #2 | 1,772 |
| #4 | MeSH descriptor: [Mortality] explode all trees | 21,880 |
| #5 | (mortality):ti,ab,kw OR (mors*):ti,ab,kw OR (mortalit*):ti,ab,kw OR (died):ti,ab,kw OR (die):ti,ab,kw OR (dying):ti,ab,kw OR (death):ti,ab,kw OR (fatal*):ti,ab,kw OR (decease*):ti,ab,kw OR (in-hospital death):ti,ab,kw OR (inhospital death):ti,ab,kw | 260,540 |
| #6 | #4 OR #5 | 269,667 |
| #7 | MeSH descriptor: [Risk Factors] explode all trees | 33,162 |
| #8 | (Risk Factors):ti,ab,kw OR (risk factor*):ti,ab,kw OR (influencing factor*):ti,ab,kw OR (influence factor*):ti,ab,kw OR (affecting factor*):ti,ab,kw OR (relevant factor*):ti,ab,kw OR (correlative factor*):ti,ab,kw OR (associated factor*):ti,ab,kw OR (Predicting factor*):ti,ab,kw OR (related factor*):ti,ab,kw | 197,275 |
| #9 | #7 OR #8 | 228,133 |
| #10 | #3 AND #6 AND #9 | 116 |

MeSH, Medical Subject Headings; IPF, idiopathic pulmonary fibrosis.

Web of Science Core Collection (Aug 10, 2023)

| Search | Query | Items found |
|--------|--|-------------|
| #1 | Topic: (IPF) OR Topic: (Idiopathic Pulmonary Fibrosis) | 20,391 |
| #2 | Topic: (mortality) OR Topic: (mors*) OR Topic: (mortalit*) OR Topic: (died) OR Topic: (die) OR Topic: (dying) OR Topic: (death) OR Topic: (fatal*) OR Topic: (decease*) OR Topic: (in-hospital death) OR Topic: (inhospital death) | 3,498,395 |
| #3 | Topic:(Risk Factors) OR Topic:(risk factor*) OR Topic:(influencing factor*) OR Topic:(influence factor*) OR Topic: (affecting factor*) OR Topic:(relevant factor*) OR Topic:(correlative factor*) OR Topic:(associated factor*) OR Topic:(Predicting factor*) OR Topic:(related factor*) | 3,569,289 |
| #4 | #1 AND #2 AND #3 | 1,631 |

Appendix 2: NOS for cohort study quality

| Study | Selection | | | Demonstration that outcome of interest was not present at start of study | Comparability | | Outcome | | Scores |
|--------------------------------------|--|-------------------------------------|---------------------------|--|--|-----------------------|---|----------------------------------|--------|
| | Representativeness of the exposed cohort | Selection of the non-exposed cohort | Ascertainment of exposure | | Comparability of cohorts on the basis of the design or analysis controlled for confounders | Assessment of outcome | Was follow-up long enough for outcomes to occur | Adequacy of follow-up of cohorts | |
| Biondini <i>et al.</i> , 2021 (9) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Caminati <i>et al.</i> , 2009 (10) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Furukawa <i>et al.</i> , 2017 (11) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Ghang <i>et al.</i> , 2019 (6) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Hachisu <i>et al.</i> , 2019 (12) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Hyltdgaard <i>et al.</i> , 2020 (13) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Kim <i>et al.</i> , 2022 (14) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Lai <i>et al.</i> , 2019 (15) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Lee <i>et al.</i> , 2023 (7) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Loeh <i>et al.</i> , 2019 (16) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Mochizuka <i>et al.</i> , 2023 (5) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Moon <i>et al.</i> , 2019 (17) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Nakano <i>et al.</i> , 2020 (18) | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 8 |
| Oda <i>et al.</i> , 2018 (19) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Sonaglioni <i>et al.</i> , 2023 (20) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Suzuki <i>et al.</i> , 2021 (4) | 1 | 1 | 1 | 1 | 2 | 1 | 0 | 1 | 8 |
| Tseng <i>et al.</i> , 2022 (21) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |
| Yoon <i>et al.</i> , 2021 (22) | 1 | 1 | 1 | 1 | 2 | 1 | 1 | 1 | 9 |

NOS, Newcastle-Ottawa Scale.