**SUPPLEMENTAL MATERIAL**

Clinical outcomes of delirium after hospital discharge: a systematic review and meta-analysis

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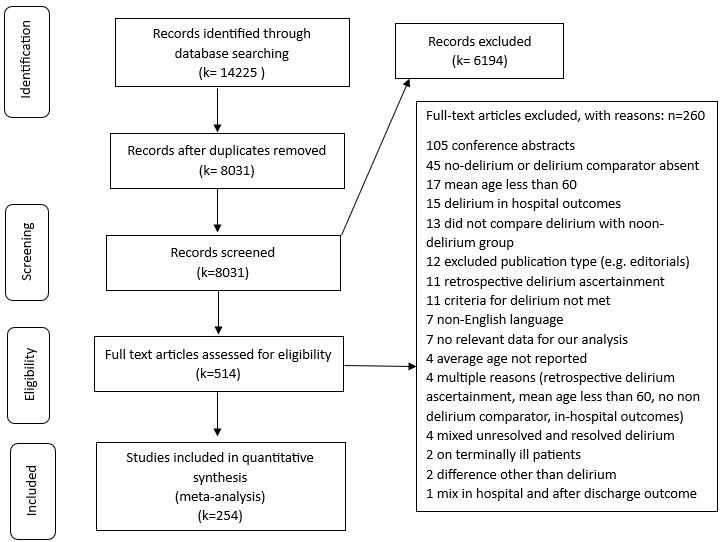


Figure S1. PRISMA flow diagram

From: Page, M.J., McKenzie, J.E., Bossuyt, P.M., Boutron, I., Hoffmann, T.C., Mulrow, C.D., Shamseer, L., Tetzlaff, J.M., Akl, E.A., Brennan, S.E. and Chou, R., 2021. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71

PRISMA Checklist.

Table S1. PRISMA 2020 Main Checklist

| **Section and Topic** | **Item #** | **Checklist item** | **Location where item is reported** |
| --- | --- | --- | --- |
| **TITLE** | | |  |
| Title | 1 | Identify the report as a systematic review. | Title page |
| **ABSTRACT** | | |  |
| Abstract | 2 | See the PRISMA 2020 for Abstracts checklist. |  |
| **INTRODUCTION** | | |  |
| Rationale | 3 | Describe the rationale for the review in the context of existing knowledge. | Introduction section |
| Objectives | 4 | Provide an explicit statement of the objective(s) or question(s) the review addresses. | Introduction section |
| **METHODS** | | |  |
| Eligibility criteria | 5 | Specify the inclusion and exclusion criteria for the review and how studies were grouped for the syntheses. | ‘Search strategy and selection criteria’ section |
| Information sources | 6 | Specify all databases, registers, websites, organisations, reference lists and other sources searched or consulted to identify studies. Specify the date when each source was last searched or consulted. | ‘Search strategy and selection criteria’ section |
| Search strategy | 7 | Present the full search strategies for all databases, registers and websites, including any filters and limits used. | ‘Search strategy and selection criteria’ section |
| Selection process | 8 | Specify the methods used to decide whether a study met the inclusion criteria of the review, including how many reviewers screened each record and each report retrieved, whether they worked independently, and if applicable, details of automation tools used in the process. | ‘Search strategy and selection criteria’ section |
| Data collection process | 9 | Specify the methods used to collect data from reports, including how many reviewers collected data from each report, whether they worked independently, any processes for obtaining or confirming data from study investigators, and if applicable, details of automation tools used in the process. | ‘Data extraction’ section |
| Data items | 10a | List and define all outcomes for which data were sought. Specify whether all results that were compatible with each outcome domain in each study were sought (e.g. for all measures, time points, analyses), and if not, the methods used to decide which results to collect. | ‘Data extraction’ and ‘Data analysis’ sections |
| 10b | List and define all other variables for which data were sought (e.g. participant and intervention characteristics, funding sources). Describe any assumptions made about any missing or unclear information. | ‘Data extraction’ and ‘Data analysis’ sections |
| Study risk of bias assessment | 11 | Specify the methods used to assess risk of bias in the included studies, including details of the tool(s) used, how many reviewers assessed each study and whether they worked independently, and if applicable, details of automation tools used in the process. | ‘Study quality and certainty of evidence’ section |
| Effect measures | 12 | Specify for each outcome the effect measure(s) (e.g. risk ratio, mean difference) used in the synthesis or presentation of results. |  |
| Synthesis methods | 13a | Describe the processes used to decide which studies were eligible for each synthesis (e.g. tabulating the study intervention characteristics and comparing against the planned groups for each synthesis (item #5)). | ‘Data analysis’ section |
| 13b | Describe any methods required to prepare the data for presentation or synthesis, such as handling of missing summary statistics, or data conversions. | ‘Data analysis’ section |
| 13c | Describe any methods used to tabulate or visually display results of individual studies and syntheses. | ‘Data analysis’ section |
| 13d | Describe any methods used to synthesize results and provide a rationale for the choice(s). If meta-analysis was performed, describe the model(s), method(s) to identify the presence and extent of statistical heterogeneity, and software package(s) used. | ‘Data analysis’ section |
| 13e | Describe any methods used to explore possible causes of heterogeneity among study results (e.g. subgroup analysis, meta-regression). | ‘Data analysis’ section |
| 13f | Describe any sensitivity analyses conducted to assess robustness of the synthesized results. | ‘Data analysis’ section |
| Reporting bias assessment | 14 | Describe any methods used to assess risk of bias due to missing results in a synthesis (arising from reporting biases). | ‘Data analysis’ section |
| Certainty assessment | 15 | Describe any methods used to assess certainty (or confidence) in the body of evidence for an outcome. | ‘Study quality and certainty of evidence’ section |
| **RESULTS** | | |  |
| Study selection | 16a | Describe the results of the search and selection process, from the number of records identified in the search to the number of studies included in the review, ideally using a flow diagram. | ‘Study characteristics’ section |
| 16b | Cite studies that might appear to meet the inclusion criteria, but which were excluded, and explain why they were excluded. | ‘Study characteristics’ section |
| Study characteristics | 17 | Cite each included study and present its characteristics. | ‘Study characteristics’ section |
| Risk of bias in studies | 18 | Present assessments of risk of bias for each included study. | ‘Risk of bias’ section |
| Results of individual studies | 19 | For all outcomes, present, for each study: (a) summary statistics for each group (where appropriate) and (b) an effect estimate and its precision (e.g. confidence/credible interval), ideally using structured tables or plots. | ‘Results’ and ‘Supplemental’ sections |
| Results of syntheses | 20a | For each synthesis, briefly summarise the characteristics and risk of bias among contributing studies. | ‘Supplemental’ sections |
| 20b | Present results of all statistical syntheses conducted. If meta-analysis was done, present for each the summary estimate and its precision (e.g. confidence/credible interval) and measures of statistical heterogeneity. If comparing groups, describe the direction of the effect. | ‘Results’ and ‘Supplemental’ sections |
| 20c | Present results of all investigations of possible causes of heterogeneity among study results. | N/A |
| 20d | Present results of all sensitivity analyses conducted to assess the robustness of the synthesized results. | ‘Subgroup analyses’ section |
| Reporting biases | 21 | Present assessments of risk of bias due to missing results (arising from reporting biases) for each synthesis assessed. | ‘Publication Bias’ and and ‘Supplemental’ sections |
| Certainty of evidence | 22 | Present assessments of certainty (or confidence) in the body of evidence for each outcome assessed. | ‘Certainty of evidence’ section |
| **DISCUSSION** | | |  |
| Discussion | 23a | Provide a general interpretation of the results in the context of other evidence. | ‘Discussion’ section |
| 23b | Discuss any limitations of the evidence included in the review. | ‘Strength and limitations of the study’ section |
| 23c | Discuss any limitations of the review processes used. | ‘Strength and limitations of the study’ section |
| 23d | Discuss implications of the results for practice, policy, and future research. | ‘Conclusion and future directions’ section |
| **OTHER INFORMATION** | | |  |
| Registration and protocol | 24a | Provide registration information for the review, including register name and registration number, or state that the review was not registered. | ‘Methods’ section |
| 24b | Indicate where the review protocol can be accessed, or state that a protocol was not prepared. | ‘Methods’ section |
| 24c | Describe and explain any amendments to information provided at registration or in the protocol. | ‘Search strategy and selection criteria’ section |
| Support | 25 | Describe sources of financial or non-financial support for the review, and the role of the funders or sponsors in the review. | ‘Declaration of Sources of Funding’ section |
| Competing interests | 26 | Declare any competing interests of review authors. | ‘Declaration of Conflicts of Interest’ section |
| Availability of data, code and other materials | 27 | Report which of the following are publicly available and where they can be found: template data collection forms; data extracted from included studies; data used for all analyses; analytic code; any other materials used in the review. | ‘Availability of data’ section |

*From:*  Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71. This work is licensed under CC BY 4.0. To view a copy of this license, visit <https://creativecommons.org/licenses/by/4.0/>

Table S2. PRISMA 2020 for Abstracts Checklist

| **Section and Topic** | **Item #** | **Checklist item** | **Reported (Yes/No)** |
| --- | --- | --- | --- |
| **TITLE** | | |  |
| Title | 1 | Identify the report as a systematic review. | Yes |
| **BACKGROUND** | | |  |
| Objectives | 2 | Provide an explicit statement of the main objective(s) or question(s) the review addresses. | Yes |
| **METHODS** | | |  |
| Eligibility criteria | 3 | Specify the inclusion and exclusion criteria for the review. | Yes |
| Information sources | 4 | Specify the information sources (e.g. databases, registers) used to identify studies and the date when each was last searched. | Yes |
| Risk of bias | 5 | Specify the methods used to assess risk of bias in the included studies. | No |
| Synthesis of results | 6 | Specify the methods used to present and synthesise results. | Yes |
| **RESULTS** | | |  |
| Included studies | 7 | Give the total number of included studies and participants and summarise relevant characteristics of studies. | Yes |
| Synthesis of results | 8 | Present results for main outcomes, preferably indicating the number of included studies and participants for each. If meta-analysis was done, report the summary estimate and confidence/credible interval. If comparing groups, indicate the direction of the effect (i.e. which group is favoured). | Yes |
| **DISCUSSION** | | |  |
| Limitations of evidence | 9 | Provide a brief summary of the limitations of the evidence included in the review (e.g. study risk of bias, inconsistency and imprecision). | No |
| Interpretation | 10 | Provide a general interpretation of the results and important implications. | Yes |
| **OTHER** | | |  |
| Funding | 11 | Specify the primary source of funding for the review. | No |
| Registration | 12 | Provide the register name and registration number. | No |

*From:*  Page MJ, McKenzie JE, Bossuyt PM, Boutron I, Hoffmann TC, Mulrow CD, et al. The PRISMA 2020 statement: an updated guideline for reporting systematic reviews. BMJ 2021;372:n71. doi: 10.1136/bmj.n71

Table S3. Overview of included studies

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Author and year | Sample size (delirium/ no delirium) | Cognition | | | Functional outcome | | | Quality of life | | | Mental health | | | Dementia | | | Institutionalisation | | | Readmission | | | Mortality | | |
|  |  | < 6 months | 6-12 months | >12 months | < 6 months | 6-12 months | >12 months | < 6 months | 6-12 months | >12 months | < 6 months | 6-12 months | >12 months | < 6 months | 6-12 months | >12 months | < 6 months | 6-12 months | >12 months | < 6 months | 6-12 months | >12 months | < 6 months | 6-12 months | >12 months |
| Abelha 2013 | 89/473 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Adamis 2007 | 47/117 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Alberto 2018 | 35/204 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| AlHuraizi 2023 | 153/131 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Alzoubi 2022 | 35/76 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Arneson 2023 | 107/860 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Avelino-Silva 2017 | 207/527 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Avelino-Silva 2018 | 457/687 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Bagienski 2017 | 29/112 |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |
| Bakker 2012 | 63/138 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Beishuizen 2020 | 14/77 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bellelli 2007 | 94/94 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Bellelli 2008 | 139/933 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  | x |  |
| Bellelli 2018 | 220/351 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Bickel 2008 | 41/159 |  |  | x |  | x |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  | x |
| Brown 2018 | 76/66 | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Brown 2020 | 1799/2234 |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Bruck 2018 | 43/82 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bryson 2011 | 23/46 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Bulic 2020 | 37/66 | x | x |  |  |  |  |  |  |  | x | x |  | x | x |  |  |  |  |  |  |  |  | x |  |
| Buurman 2011 | 118/504 |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cartei 2022 | 193/194 |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Cavallari 2017 | 25/88 |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Chalmers 2021 | 831/1640 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Chan 2016 | 49/104 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Chan 2017 | 39/117 | x | x |  | x | x |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Chen 2017 | 44/92 | x | x | x |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cheong 2021 | 50/396 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Cirbus 2019 | 68/91 | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Cole 2008 | 115/95 | x | x |  | x | x |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  | x | x |  |
| Curyto 2001 | 12/41 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Czyzycki 2022 | 163/488 |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Daiello 2019 | 129/419 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dani 2018 | 72/636 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Davis 2012 | 121/429 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Davis 2014 | 122/2075 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| DeCrane 2011 | 70/250 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Decrane 2012 | 70/250 |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| deHaan 2023 | 326/1725 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| deJong 2019 | 121/342 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  | x | x |  |
| DelaVarga-Martínez 2022 | 55/160 |  |  | x |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |
| Ditzel 2023 | 38/208 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Diwell 2018 | 56/301 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  | x |
| Miu 2013 | 86/228 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dostovic 2021 | 75/96 |  |  | x |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Drews 2015 | 77/482 |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Dros 2020 | 67/384 |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Duppils 2004 | 32/83 | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Duprey 2020 | 542/953 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Durlach 2023 | 42/193 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  | X |  |  | x |  |  |
| Edelstein 2004 | 25/613 |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Edlund 2006 | 125/275 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Eeles 2010 | 37/136 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |
| Eeles 2012 | 102/171 |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Eide 2016 | 48/25 | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Eide 2016\_1 | 76/60 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |
| Eijsden 2015 | 29/63 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x | x |
| Elsayem 2017 | 44/198 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x | x |
| Evensen 2021 | 83/145 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Falsini 2018 | 111/615 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  | x |  |  |
| FialhoSilva 2021 | 71/151 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Fick 2013 | 44/95 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Francis 1990 | 50/176 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |
| Francis 1992 | 45/160 |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Franck 2016 | 270/580 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Furlaneto 2007 | 25/60 |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Gandossi 2023 | 46/210 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Garcez 2019 | 66/243 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| George 1997 | 171/95 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  | X | x |  | x | x |  |
| Giroux 2021 | 69/310 | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Givens 2008 | 52/74 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Givens 2009 | 39/420 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |
| Gleason 2015 | 115/404 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |
| Gonçalves 2023 | 276/829 |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Gonzale 2005 | 58/91 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Gonzalez 2009 | 192/350 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Gottschalk 2015 | 151/308 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Gou 2021 | 122/375 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Goudzwaard 2020 | 75/468 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Gual 2018 | 352/557 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |
| Guenther 2020 | 39/86 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Han 2010 | 108/520 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Han 2022 | 87/957 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  | x |  |  |
| Hapca 2018 | 1065/4344 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x | x |
| Hawley 2023 | 1058/17761 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Hempenius 2016 | 31/222 | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  | X |  |  | x |  |  |
| Hochang 2017 | 73/248 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Hofhuis 2022 | 182/300 |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hölttä 2011 | 66/189 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Honda 2018 | 134/465 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x | x |
| Hoogma 2023 | 93/157 | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  | X |  |  | x |  |  |
| Hshieh 2017 | 135/431 |  |  |  | x |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Hshieh 2023 | 56/179 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Hughes 2021 | 740/300 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Humbert 2021 | 15/62 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Inouye 1998 | 81/599 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Inouye 2016 | 129/419 | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Isaia 2009 | 14/130 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Iwata 2020 | 109/299 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Jackson 2014 | 352/115 |  |  |  | x | x |  | x | x |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jankowski 2011 | 37/33 | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Janssen 2021 | 9/194 | x | x |  |  |  |  | x | x |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Jin 2017 | 155/929 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Juliebø 2010 | 101/50 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Kainz 2022 | 72/150 | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kakuma 2003 | 30/77 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x | x |
| Kat 2008 | 71/41 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kat 2011 | 67/522 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Katz 2001 | 12/35 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kennedy 2014 | 63/613 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  | x |  |  |
| Kilicaslan 2022 | 44/371 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x | x |
| Knauf 2019 | 202/193 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Korber 2021 | 16/161 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |
| Koster 2012 | 52/248 | x |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  | X |  |  |  |  |  |
| Kotfis 2019 | 121/639 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Krogseth 2011 | 29/77 |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |
| Krogseth 2014 | 80/127 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Krogseth 2016 | 201/86 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Krogseth 2023 | 39/63 |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Krzych 2014 | 237/5544 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Kunicki 2023 | 134/560 | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x | x |
| KyoungJaMoon 2018 | 83/90 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  | x |  |  |
| Labaste 2020 | 61/112 |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Labaste 2023 | 14/49 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |
| Large 2013 | 14/35 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  | x | x |  |
| Lee 2011 | 56/162 |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Lee 2018 | 83/517 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Leslie 2005 | 115/804 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Leslie 2008 | 109/732 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Lewis 1995 | 20/362 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Li 2019 | 32/79 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  | x |  |
| Li 2021 | 15/198 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Liang 2014 | 17/165 |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Lima 2010 | 63/133 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Lingehall 2017 | 64/50 |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |
| Lundström 2003 | 29/49 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |
| Luz 2020 | 89/80 |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Maclullich 2019 | 95/690 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |
| Marcantonio 2005 | 188/316 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | X |  |  |  |  |  |
| Mariz 2013 | 28/50 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |
| Marrama 2022 | 74/125 |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  | x | x |
| Mathies 2018 | 21/47 |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mauri 2021 | 66/595 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x | x |
| Mazzola 2015 | 135/140 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| McAvay 2006 | 31/378 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| McCusker 2001 | 220/95 | x | x |  | x | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |
| McCusker 2002 | 243/118 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| McCusker 2014 | 31/243 | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Meng-ChangTsai 2013 | 172/257 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |
| Minden 2005 | 8/27 |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Miu 2013 | 86/228 |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  | x | x |  |  |  |  |  | x |  |
| Miyamoto 2021 | 22/59 |  |  |  | x | x |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Monacelli 2018 | 85/133 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Morandi 2014 | 323/2319 |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |
| Moreno-Gavino 2012 | 198/1236 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Moskowitz 2017 | 70/94 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Muller 2023 | 11/46 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Muresan 2016 | 46/153 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Murray 1993 | 35/143 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Muzzana 2022 | 15/187 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |
| Naidech 2013 | 29/56 |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Neerland 2017 | 336/360 |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Nerdal 2022 | 10/117 | x |  | x |  |  |  |  |  |  | x |  | x | x |  | x |  |  |  |  |  |  |  |  |  |
| Neufeld 2015 | 36/45 |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |
| Nguyen 2018 | 44/153 | x |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Nishizawa 2023 | 334/743 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Noriega 2015 | 35/168 |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  | x | x |  |
| Ogawa 2017 | 43/283 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ojagbemi 2020 | 29/121 | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |
| Ojagbemi 2021 | 29/121 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| O'Keeffe 1997 | 94/131 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |  |
| Oldenbeuving 2011 | 62/465 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Olofsson 2018 | 75/60 | x | x | x |  |  |  |  |  |  | x | x | x | x | x | x |  |  |  |  |  |  | x | x | x |
| Pak 2020 | 36/96 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Pandharipande 2013 | 352/115 | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Pasinska 2019 | 164/518 |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Patel 2014 | 87/10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Paulino 2023 | 34/72 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  |
| Pendlebury 2015 | 81/202 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |
| Penfold 2023 | 189/1151 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |
| Pitkala 2005 | 106/319 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  | x | x |
| Pompei 1994 | 57/359 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Praditsuwan 2013 | 110/115 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Qu 2018 | 38/223 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Quinlan 2011 | 61/887 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Raats 2015 | 35/197 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Racine 2018 | 27/34 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |
| Racine 2020 | 30/110 | x |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Radcliffe 2023 | 109/161 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Radinovic 2014 | 88/99 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Rahkonen 2001 | 20/179 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |
| Rawle 2021 | 77/500 |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  | x |  |  |  |  |  |  |
| Rego 2022 | 101/176 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Reynish 2017 | 901/3584 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Richardson 2021 | 82/123 |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |
| Richardson 2021\_2 | 48/87 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rizzi 2015 | 35/204 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Robinson 2009 | 64/89 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Robinson 2011 | 74/98 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Rockwood 1999 | 38/165 |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |
| Rolandi 2020 | 12/1088 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rollo 2022 | 31/72 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Rosenthal 2017 | 18/47 |  |  |  |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rudolph 2008 | 61/885 | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Rudolph 2010 | 33/64 |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Ruggiero 2017 | 133/381 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Saczynski 2012 | 103/122 | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sánchez-Lozano 2023 | 96/273 | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sanguanwit 2023 | 49/124 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |
| Sasajima 2012 | 88/211 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |
| Sato 2017 | 35/128 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Sauer 2017 | 22/154 | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Serrano-Duenas 2005 | 21/21 | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Sheng 2006 | 39/117 | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  | x | x |  |
| Shi 2019 | 28/77 |  |  |  | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shi 2019\_2 | 20/68 |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Shim 2015 | 90/206 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Shintani 2009 | 182/42 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Singler 2014 | 19/114 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |
| Slor 2013 | 23/30 |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Sri-on 2016 | 27/205 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Suraarunsumrit 2022 | 42/247 |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |
| Svenningsen 2014 | 148/131 | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Svenningsen 2015 | 158/222 |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Tahir 2018 | 70/91 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Tan AH 2015 | 28/460 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Tavares 2021 | 10/235 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| To-adithep 2023 | 170/934 |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Traissac 2011 | 241/53 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |
| Trevisan 2023 | 132/442 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Tripathy 2014 | 56/687 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  |
| Tsai 2012 | 172/44 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |
| Uthamalingam 2011 | 134/744 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  |
| van Rijsbergen 2011 | 52/44 |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |
| vandenBoogaard 2012 | 171/744 |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VanderHeijden 2023 | 529/1871 |  | x |  |  | x |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |
| VanDerWulp 2019 | 116/587 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |
| VanRompaey 2009 | 20/85 |  |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Vasunilashorn 2016 | 620/299 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Vasunilashorn 2018 | 285/229 | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vasunilashorn 2022 | 184/168 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x |  | x | x |  |
| Veiga 2012 | 128/552 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Verloo 2016 | 20/94 | x |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Vida 2006 | 60/72 |  |  |  | x | x | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Visser 2015 | 22/441 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |  |  |  | x |  |
| Vives-Borrás 2019 | 37/490 | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |  |
| Wang 2021 | 19/108 |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Weng 2019 | 85/64 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Whittamore 2014 | 107/142 | x |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  | x |  |  | x |  |  |
| Witlox 2013 | 22/26 | x |  |  | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Wolters 2014 | 412/689 | x | x |  |  |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |  |
| Wolters 2017 | 186/177 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Zakriya 2004 | 19/69 |  |  |  | x |  |  |  |  |  |  |  |  |  |  |  | x |  |  | x |  |  | x |  |  |
| Ziman 2020 | 332/983 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x |
| Zipprich 2020 | 64/527 |  |  |  | x |  |  | x |  |  |  |  |  |  |  |  |  |  |  |  |  |  | x | x | x |

Footnote: The highest sample size was included when the study has different sample size for different follow-up time and multiple outcomes

Studies which don’t have specific time points, shaded black

Table S4. Overview of included studies

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Author and year | Country | Study design | Sex  male/female, N | Age  (mean/sd) | delirium ascertainment  setting | Delirium assessment tool/s | Specific clinical outcomes assessment | Clinical outcomes assessment method |
|  |  |  |  |  |  |  |  |  |
| Abelha 2013 | Portugal | Pros.coh | 354/208 | 64.6/14.87 | Surgical ICU | ICDSC | ADL | Katz's index |
| Abelha 2013 |  |  |  |  |  |  | IADL | Lawton scale |
| Abelha 2013 |  |  |  |  |  |  |  | Mortality records of registry |
| Adamis 2007 | UK | Pros.coh | 54/110 | 84.6/6.57 | Medical unit | CAM |  | Clinical records  Telephone contact |
| Alberto 2018 | Spain | Pros.coh | 93/146 | 81.7/9.4 | ED | bCAM |  | Electronic medical records |
| AlHuraizi 2023 | Oman | Pros.coh | 136/148 | 71.7/8.94 | Medical wards | 3D-CAM |  | Telephone interview |
| AlHuraizi 2023 |  |  |  |  |  |  |  | Telephone interview |
| Alzoubi 2022 | Jordan | Pros.coh | 56/55 | 64.7/16.3 | ICU | CAM-ICU | ADL | Katz's index |
| Alzoubi 2022 |  |  |  |  |  |  |  | Telephone interview |
| Arneson 2023 | USA | Retro.coh | 441/526 | 83.35/6.68 | ED | bCAM |  | Electronic health record |
| Arneson 2023 |  |  |  |  |  |  |  | Electronic health record |
| Arneson 2023 |  |  |  |  |  |  |  | Electronic health record |
| Arneson 2023 |  |  |  |  |  |  |  | Electronic health record |
| Arneson 2023 |  |  |  |  |  |  |  | Electronic health record |
| Arneson 2023 |  |  |  |  |  |  |  | Electronic health record |
| Arneson 2023 |  |  |  |  |  |  |  | Electronic health record |
| Avelino-Silva 2017 | Brazil | Pros.coh | 549/860 | 80/9 | Geriatric ward | s-CAM | Delirium vs no delirium no dementia | Telephone interview |
| Avelino-Silva 2017 |  |  |  |  |  |  | DSD vs No delirium, dementia | Telephone interview |
| Avelino-Silva 2018 | Brazil | Pros.coh | 549/860 | 80/9 | Geriatric ward | CAM |  | Telephone interview |
| Bagienski 2017 | Poland | Pros.coh | 52/89 | 81.47/5.61 | Cardiac surgery | CHART-DEL |  | NA |
| Bagienski 2017 |  |  |  |  |  |  |  | NA |
| Bagienski 2017 |  |  |  |  |  |  |  | NA |
| Bagienski 2017 |  |  |  |  |  |  |  | EQ-5D-3L |
| Bakker 2012 | Netherlands | Pros.coh | 121/80 | 76.1/NA | Cardiothoracic surgery | CAM-ICU |  | Government record |
| Beishuizen 2020 | Netherlands | Pros.coh | 37/89 | 80.89/NA | Cardiology unit | DSM-V |  | NA |
| Beishuizen 2020 |  |  |  |  |  |  | ADL | Katz Index  Groningen Activity Restriction Scale (GARS-2) |
| Bellelli 2007 | Italy | Pros.coh | 40/148 | NA/NA | Postacute rehabilitation facility | CAM |  | Telephone interview |
| Bellelli 2008 | Italy | Pros.coh | 373/950 | 76.6/10.5 | Rehabilitation and Aged Care Unit | CAM |  | Telephone interview |
| Bellelli 2008 |  |  |  |  |  |  |  | Telephone interview |
| Bellelli 2008 |  |  |  |  |  |  |  | Telephone interview |
| Bellelli 2018 | Italy | Pros.coh | 93/146 | NA/NA | Orthogeriatric Unit | DSM-V |  | Mortality register |
| Bickel 2008 | Germany | Pros.coh | 61/139 | 73.8/9 | Surgery | s-CAM |  | Telephone interview |
| Bickel 2008 |  |  |  |  |  | 4AT" |  | Telephone interview |
| Bickel 2008 |  |  |  |  |  | CAM |  | MMSE |
| Bickel 2008 |  |  |  |  |  |  | Need for long-term care | Insurance program |
| Bickel 2008 |  |  |  |  |  |  | Need for long-term care | Insurance program |
| Bickel 2008 |  |  |  |  |  |  |  | MMSE |
| Bickel 2008 |  |  |  |  |  |  |  | MMSE |
| Brown 2018 | USA | Pros.coh | 107/35 | 70/8 | Surgery | CAM  CAM-ICU  Medical records |  | Neuropsychologic battery |
| Brown 2018 |  |  |  |  |  |  |  | Neuropsychologic battery |
| Brown 2018 |  |  |  |  |  |  |  | Neuropsychologic battery |
| Brown 2018 |  |  |  |  |  |  |  | Neuropsychologic battery |
| Brown 2020 | Canada | Retro.coh | 2744/1293 | 58.94/18.53 | ICU | ICDSC | Neurocognitive disorder | Clinical and administrative databases |
| Brown 2020 |  |  |  |  |  |  | Depression | Clinical and administrative databases |
| Brown 2020 |  |  |  |  |  |  | Anxiety | Clinical and administrative databases |
| Brown 2020 |  |  |  |  |  |  | Trauma-and-stressor related disorder | Clinical and administrative databases |
| Bruck 2018 | Sweden | Pros.coh | 76/49 | 60.12/NA | ICU | CAM-ICU |  | CFQ |
| Bryson 2011 | Canada | Pros.coh | 64/23 | 71.14/NA | Surgery | CAM |  | Neuropsychometric testing  MMSE |
| Bulic 2020 | Australia | Pros.coh | 53/50 | 60/16 | ICU | CAM-ICU |  |  |
| Bulic 2020 |  |  |  |  |  |  |  | TICS |
| Bulic 2020 |  |  |  |  |  |  |  | TICS |
| Bulic 2020 |  |  |  |  |  |  |  | IQCODE |
| Bulic 2020 |  |  |  |  |  |  |  | TICS |
| Bulic 2020 |  |  |  |  |  |  |  | TICS |
| Bulic 2020 |  |  |  |  |  |  |  | TICS |
| Bulic 2020 |  |  |  |  |  |  |  | TICS |
| Bulic 2020 |  |  |  |  |  |  | PTSD | IES-R |
| Bulic 2020 |  |  |  |  |  |  | PTSD | IES-R |
| Bulic 2020 |  |  |  |  |  |  | PTSD | IES-R |
| Bulic 2020 |  |  |  |  |  |  | PTSD | IES-R |
| Bulic 2020 |  |  |  |  |  |  | PTSD | IES-R |
| Bulic 2020 |  |  |  |  |  |  | PTSD | IES-R |
| Buurman 2011 | Netherlands | Pros.coh | 295/344 | 78.2/7.8 | Internal medicine wards | CAM | ADL | Katz index |
| Cartei 2022 | Italy | Pros.coh | 108/279 | 82/8 | Trauma and Orthopedics Centre | CAM | ADL | NA |
| Cartei 2022 |  |  |  |  |  |  |  | Telephone interview |
| Cavallari 2017 | USA | Pros.coh | 45/68 | 76/5 | Surgery | CAM  chart review |  | GCP battery |
| Cavallari 2017 |  |  |  |  |  |  |  | GCP battery |
| Chalmers 2021 | UK | Pros.coh | 1093/1378 | 85.35/6.67 | Acute geriatric medicine service | 4AT |  | National health registry |
| Chan 2016 | Hong Kong | Pros.coh | 134/19 | 74.2/11.1 | Respiratory wards | DSM-IV |  | Hospital records  Death certificate |
| Chan 2016 |  |  |  |  |  |  |  | Hospital records  Death certificate |
| Chan 2017 | Australia | Pros.coh | NA | NA/NA | General medical admission | DSM-IV |  | MMSE |
| Chan 2017 |  |  |  |  |  |  |  | MMSE |
| Chan 2017 |  |  |  |  |  |  | Anxiety | HADS |
| Chan 2017 |  |  |  |  |  |  | Depression | HADS |
| Chan 2017 |  |  |  |  |  |  | Anxiety | HADS |
| Chan 2017 |  |  |  |  |  |  | Depression | HADS |
| Chan 2017 |  |  |  |  |  |  | Anxiety | HADS |
| Chan 2017 |  |  |  |  |  |  | Depression | HADS |
| Chan 2017 |  |  |  |  |  |  |  | FIM |
| Chan 2017 |  |  |  |  |  |  |  | FIM |
| Chan 2017 |  |  |  |  |  |  |  | FIM |
| Chan 2017 |  |  |  |  |  |  |  | NA |
| Chan 2017 |  |  |  |  |  |  |  | NA |
| Chan 2017 |  |  |  |  |  |  |  | NA |
| Cheong 2021 | Malaysia | Pros.coh | 207/240 | 73.23/5.94 | Operating theatre and surgical wards | 4AT  CAM |  | Electronic medical records  Telephone interview |
| Chen 2017 | China | Pros.coh | 104/32 | 60.85/NA | Cardiac surgery (CABG) | CAM-ICU |  | TICS‐m |
| Chen 2017 |  |  |  |  |  |  |  |  |
| Chen 2017 |  |  |  |  |  |  |  |  |
| Chen 2017 |  |  |  |  |  |  |  |  |
| Chen 2017 |  |  |  |  |  |  |  |  |
| Chen 2017 |  |  |  |  |  |  |  | SF-36 |
| Cirbus 2019 | USA | Pros.coh | 102/126 | 74.64/NA | Hospitalized from ED | bCAM  CAM-ICU |  | IQCODE |
| Cirbus 2019 |  |  |  |  |  |  |  | IQCODE |
| Cirbus 2019 |  |  |  |  |  |  |  | IQCODE |
| Cirbus 2019 |  |  |  |  |  |  |  | IQCODE |
| Cirbus 2019 |  |  |  |  |  |  |  | IQCODE |
| Cirbus 2019 |  |  |  |  |  |  |  | IQCODE |
| Cirbus 2019 |  |  |  |  |  |  | ADL | Older American Resources and Services Activities of Daily Living (OARS ADL) |
| Cirbus 2019 |  |  |  |  |  |  | ADL | OARS ADL |
| Cirbus 2019 |  |  |  |  |  |  | ADL | OARS ADL |
| Cole 2008 | Canada | Pros.coh | 71/139 | 83.48/NA | Medical or geriatric services | CAM |  | MMSE |
| Cole 2008 |  |  |  |  |  |  |  | MMSE |
| Cole 2008 |  |  |  |  |  |  |  | MMSE |
| Cole 2008 |  |  |  |  |  |  | ADL | Barthel Index (BI) |
| Cole 2008 |  |  |  |  |  |  | IADL | OARS IADL |
| Cole 2008 |  |  |  |  |  |  | ADL | Barthel Index (BI) |
| Cole 2008 |  |  |  |  |  |  | IADL | OARS IADL |
| Cole 2008 |  |  |  |  |  |  | ADL | Barthel Index (BI) |
| Cole 2008 |  |  |  |  |  |  | IADL | OARS IADL |
| Cole 2008 |  |  |  |  |  |  |  | Hospital database  Interviews |
| Cole 2008 |  |  |  |  |  |  |  | Hospital database |
| Cole 2008 |  |  |  |  |  |  |  | Interviews |
| Cole 2008 |  |  |  |  |  |  |  | Hospital database |
| Curyto 2001 | USA | Pros.coh | 39/63 | 83.3/NA | Residential care facility | DSM-III-R |  | NA |
| Czyzycki 2022 | Poland | Pros.coh | 323/375 | NA/NA | Department of Neurology | DSM-5 |  | mRS |
| Czyzycki 2022 |  |  |  |  |  |  |  | mRS |
| Czyzycki 2022 |  |  |  |  |  |  |  | mRS |
| Czyzycki 2022 |  |  |  |  |  |  |  | mRS |
| Czyzycki 2022 |  |  |  |  |  |  |  | mRS |
| Czyzycki 2022 |  |  |  |  |  |  |  | mRS |
| Czyzycki 2022 |  |  |  |  |  |  |  | NA |
| Czyzycki 2022 |  |  |  |  |  |  |  | NA |
| Daiello 2019 | USA | Retro.coh | 231/320 | 77/5 | Surgery | CAM  chart review |  | Neuropsychologic test battery |
| Daiello 2019 |  |  |  |  |  |  |  | Neuropsychologic test battery |
| Daiello 2019 |  |  |  |  |  |  |  | Neuropsychologic test battery |
| Dani 2018 | UK | Pros.coh | 291/419 | 83.1/7.41 | Acute medical unit | CAM  Medical chart |  | National Statistics record |
| Davis 2012 | Finland | Pros.coh | 113/440 | 88/NA | Community | DSM-III-R |  | MMSE  Short Portable Mental Status Questionnaire  Clinical Dementia Rating Scale |
| Davis 2012 |  |  |  |  |  |  |  | Katz index  Lawton and Brody |
| Davis 2014 | UK | Pros.coh | 794/1403 | 77.35/9.64 | Community | DSM-IV |  | Geriatric Mental State examination |
| Davis 2014 |  |  |  |  |  |  |  | National Statistics record |
| DeCrane 2011 | USA | Pros.coh | 71/249 | 86.75/NA | Long-Term Care Facilities | CAM  NEECHAM  Clinical Assessment of Confusion A (CAC-A)  Vigilance A  MMSE |  | National Death Index |
| Decrane 2012 | USA | Pros.coh | 71/249 | 86.75/NA | Long-term care facilities | CAM  NEECHAM  Clinical Assessment of Confusion A (CAC-A)  Vigilance A  MMSE | Fall | Patient record |
| Decrane 2012 |  |  |  |  |  |  | Fall | Patient record |
| Decrane 2012 |  |  |  |  |  |  | Fall | Patient record |
| DeHaan 2023 | Netherlands | Pros.coh | 656/1395 | 80/10 | Geriatric trauma unit/orthopedic trauma ward | DSM-V |  | Telephone interview  In-person interview |
| DeHaan 2023 |  |  |  |  |  |  |  | Telephone interview  In-person interview |
| DeJong 2019 | Netherlands | Pros.coh | 153/310 | 81/8 | Geriatric trauma unit/orthopedic trauma ward | CAM  DOS  Clinical evaluation | New to nursing home (without dementia) | NA |
| DeJong 2019 |  |  |  |  |  |  | New to nursing home (with dementia) | NA |
| DeJong 2019 |  |  |  |  |  |  |  | NA |
| DeJong 2019 |  |  |  |  |  |  |  | NA |
| DelaVarga-Martínez 2023 | Spain | Pros.coh | NA | 74.3/NA | ICU | CAM-ICU | Memory problems | Developed by the authors |
| DelaVarga-Martínez 2023 |  |  |  |  |  |  | Concentration | Developed by the authors |
| DelaVarga-Martínez 2023 |  |  |  |  |  |  | Confusion/disorientation | Developed by the authors |
| DelaVarga-Martínez 2023 |  |  |  |  |  |  | Less mobility | Developed by the authors |
| DelaVarga-Martínez 2023 |  |  |  |  |  |  | ADL | Developed by the authors |
| DelaVarga-Martínez 2023 |  |  |  |  |  |  | Sleep problems | Developed by the authors |
| DelaVarga-Martínez 2023 |  |  |  |  |  |  | Nightmares | Developed by the authors |
| DelaVarga-Martínez 2023 |  |  |  |  |  |  | Emotional problems | Developed by the authors |
| Ditzel 2023 | Netherlands & Germany | Pros.coh | 161/85 | 71/4.48 | Surgery | CAM-ICU  Nu-DESC  Chart review |  | Trail Making Test B (TMT-B) |
| Ditzel 2023 |  |  |  |  |  |  |  | NA |
| Diwell 2018 | UK | Pros.coh | 250/360 | 83/7 | ED | s-CAM |  | National Statistics office |
| Diwell 2018 |  |  |  |  |  |  |  | National Statistics office |
| Dostovic 2021 | Bosnia and Herzegovina | Pros.coh | NA | NA/NA | Medical admission-stroke | DSM-IV  DRS-R-98 |  | Dementia Assessment Scale |
| Dostovic 2021 |  |  |  |  |  |  |  | MMSE |
| Dostovic 2021 |  |  |  |  |  |  |  | IMC |
| Drews 2015 | Germany | Pros.coh | 304/255 | NA/NA | Surgery | CAM | PTSD | PTSS-14 |
| Dros 2020 | Poland | Pros.coh | 202/221 | 69.4/NA | Stroke unit | bCAM  CAM-ICU  DSM-5 |  | DSM-5  MoCA  Telephone version of MoCA (T-MoCA)  IQCODE |
| Dros 2020 |  |  |  |  |  |  |  | DSM-5  MoCA  Telephone version of MoCA (T-MoCA)  IQCODE |
| Duppils 2004 | Sweden | Pros.coh | NA | 83.1/NA | surgery | DSM IV |  | MMSE |
| Duppils 2004 |  |  |  |  |  |  |  | SF-36 |
| Duppils 2004 |  |  |  |  |  |  |  | SF-36 |
| Duprey 2020 | Netherlands | RCT | NA | 66.3/12.6 | ICU |  |  | NA |
| Duprey 2020 |  |  |  |  |  | CAM-ICU |  | NA |
| Duprey 2020 |  |  |  |  |  |  |  | NA |
| Durlach 2023 | Argentina | Pros.coh | 128/142 | 67.83/47.73 | ICU | CAM-ICU |  | NA |
| Durlach 2023 |  |  |  |  |  |  | ADL | BADL = 6 |
| Durlach 2023 |  |  |  |  |  |  | IADL | IADL = 8 |
| Durlach 2023 |  |  |  |  |  |  |  | Telephone interview |
| Durlach 2023 |  |  |  |  |  |  |  | Telephone interview |
| Edelstein 2004 | USA | Pros.coh | 729/192 | NA/NA | Surgery-hip fracture | DSM-IV  Chart notes | Ambulation decline | Interview |
| Edelstein 2004 |  |  |  |  |  |  | ADL | Katz index |
| Edelstein 2004 |  |  |  |  |  |  | IADL | Lawton and Brody |
| Edelstein 2004 |  |  |  |  |  |  |  | NA |
| Edlund 2006 | Sweden | Pros.coh | 177/223 | 80.15/NA | General internal medicine wards | DSM-IV  OBS scale |  | National register |
| Eeles 2010 | UK | Pros.coh | 117/161 | 82.5/5.6 | Medical admission unit | DSM-IV  Medical notes |  | Hospital electronic records  Local register of births and deaths |
| Eeles 2010 |  |  |  |  |  |  |  | Hospital electronic records |
| Eeles 2010 |  |  |  |  |  |  |  | Local register of births and deaths |
| Eeles 2010 |  |  |  |  |  |  |  | Hospital electronic records |
| Eeles 2010 |  |  |  |  |  |  |  | Local register of births and deaths |
| Eeles 2012 | UK | Pros.coh | 112/161 | 82.3/7.5 | Medical admission unit | DSM-IV | Frailty | FI |
| Eeles 2012 |  |  |  |  |  |  | Frailty | FI |
| Eide 2016 | Norway | Pros.coh | 60/76 | 83.5/2.7 | surgery | CAM |  | MMSE |
| Eide 2016 |  |  |  |  |  |  |  | MMSE |
| Eide 2016 |  |  |  |  |  |  | ADL | Barthel Index |
| Eide 2016 |  |  |  |  |  |  | ADL | Barthel Index |
| Eide 2016 |  |  |  |  |  |  | IADL | Nottingham Extended Activities of Daily Living Scale |
| Eide 2016 |  |  |  |  |  |  | IADL | Nottingham Extended Activities of Daily Living Scale |
| Eide 2016 |  |  |  |  |  |  | ADL | Barthel Index |
| Eide 2016 |  |  |  |  |  |  | ADL | Barthel Index |
| Eide 2016 |  |  |  |  |  |  | ADL | Barthel Index |
| Eide 2016 |  |  |  |  |  |  | IADL | Nottingham Extended Activities of Daily Living Scale |
| Eide 2016 |  |  |  |  |  |  | Mental component summary | SF-12 |
| Eide 2016 |  |  |  |  |  |  | Mental component summary | SF-12 |
| Eide 2016 |  |  |  |  |  |  | Physical component summary | SF-12 |
| Eide 2016 |  |  |  |  |  |  | Physical component summary | SF-12 |
| Eide 2016 |  |  |  |  |  |  | Mental component summary | SF-12 |
| Eide 2016 |  |  |  |  |  |  | Mental component summary | SF-12 |
| Eide 2016 |  |  |  |  |  |  | Physical component summary | SF-12 |
| Eide 2016 |  |  |  |  |  |  | Physical component summary | SF-12 |
| Eide2016\_1 | Norway | Pros.coh | 60/76 | 83.5/2.7 | surgery | CAM |  | Hospital information registry |
| Eide2016\_1 |  |  |  |  |  |  |  | Hospital information registry |
| Eijsden 2015 | Netherlands | Pros.coh | 53/39 | 76.35/8.28 | Vascular surgical ward | DOS |  | Electronic medical records |
| Eijsden 2015 |  |  |  |  |  |  |  | Electronic medical records |
| Eijsden 2015 |  |  |  |  |  |  |  | Electronic medical records |
| Elsayem 2017 | USA | Pros.coh | NA | 56.38/52.2 | ED | CAM  MDAS |  | Medical records |
| Elsayem 2017 |  |  |  |  |  |  |  | Medical records |
| Elsayem 2017 |  |  |  |  |  |  |  | Medical records |
| Evensen 2021 | Norway | Pros.coh | 89/139 | 86.6/5.2 | Medical geriatric ward | 4AT  DSM-V |  | Hospital records  National Death Registry |
| Falsini 2018 | Italy | Pros.coh | 413/313 | 79.1/7.8 | Cardiac intensive care units | CAM |  | Telephone interview |
| Falsini 2018 |  |  |  |  |  |  |  | Telephone interview |
| Falsini 2018 |  |  |  |  |  |  |  | Telephone interview |
| FialhoSilva 2021 | Brazil | Pros.coh | 121/106 | 62.5/13.5 | Stroke Unit | CAM-ICU  RASS |  | mRS |
| FialhoSilva 2021 |  |  |  |  |  |  |  | mRS |
| FialhoSilva 2021 |  |  |  |  |  |  |  | NA |
| Fick 2013 | USA | Pros.coh | 80/57 | 83/7 | Acute care hospitalization | CAM |  | In-person interviews  Telephone interviews |
| Fick 2013 |  |  |  |  |  |  | ADL | Katz index |
| Fick 2013 |  |  |  |  |  |  | IADL | Lawton IADL |
| Francis 1990 | USA | Pros.coh | 85/144 | 78/NA | Medical ward | DSM III-R |  | In-person interviews  Telephone interviews |
| Francis 1990 |  |  |  |  |  |  | ADL | Katz index |
| Francis 1990 |  |  |  |  |  |  |  | In-person interviews  Telephone interviews |
| Francis 1992 | USA | Pros.coh | 79/126 | 77.96/NA | General medical wards | DSM-III-R |  | MMSE |
| Francis 1992 |  |  |  |  |  |  | Loss of Independent Community Living | Dependency on 4 basic ADL |
| Francis 1992 |  |  |  |  |  |  |  | Telephone interviews |
| Franck 2016 | Germany | RCT | 461/389 | 69.6/6.3 | Post-anaesthesia care unit | DSM-IV-TR |  | Visual Verbal Learning Test (vVLT)  Stroop- Colour-Word-Interference-Test (SCWT)  Cambridge Neuropsychological  Test Automated Battery (CANTAB) |
| Franck 2016 |  |  |  |  |  |  |  | Visual Verbal Learning Test (vVLT)  Stroop- Colour-Word-Interference-Test (SCWT)  Cambridge Neuropsychological  Test Automated Battery (CANTAB) |
| Franck 2016 |  |  |  |  |  |  |  | Visual Verbal Learning Test (vVLT)  Stroop- Colour-Word-Interference-Test (SCWT)  Cambridge Neuropsychological  Test Automated Battery (CANTAB) |
| Furlaneto 2007 | Brazil | Pros.coh | 14/71 | 80.26/NA | Geriatric orthopedic ward | CAM |  | (BDRS) 25 |
| Furlaneto 2007 |  |  |  |  |  |  |  | Katz index  Lawton index |
| Furlaneto 2007 |  |  |  |  |  |  |  | Telephone interview |
| Furlaneto 2007 |  |  |  |  |  |  |  | Telephone interview |
| Gandossi 2023 | Italy | Pros.coh | 241/743 | 84/7.45 | Orthogeriatric centers | 4AT |  | Cumulated Ambulation Score (CAS) |
| Gandossi 2023 |  |  |  |  |  |  |  | Cumulated Ambulation Score (CAS) |
| Garcez 2019 | Brazil | Retro.coh | 123/186 | 78/9 | Geriatric ward | s-CAM |  | Medical records |
| George 1997 | UK | Pros.coh | 115/151 | 80.6/NA | Geriatric, medical, surgical and orthopaedic wards | DSM III |  | NA |
| George 1997 |  |  |  |  |  |  |  | NA |
| George 1997 |  |  |  |  |  |  |  | NA |
| George 1997 |  |  |  |  |  |  |  | NA |
| George 1997 |  |  |  |  |  |  |  | NA |
| George 1997 |  |  |  |  |  |  |  | NA |
| Giroux 2021 | Canada | Pros.coh | 300/308 | 76.8/7.8 | ED | CAM |  | TICS-m |
| Giroux 2021 |  |  |  |  |  |  |  | TICS-m |
| Giroux 2021 |  |  |  |  |  |  |  | OARS |
| Giroux 2021 |  |  |  |  |  |  |  | OARS |
| Givens 2008 | USA | Pros.coh | 27/99 | 79/8 | Surgery | CAM | ADL | loss of ability to perform two or more ADLs |
| Givens 2008 |  |  |  |  |  |  |  | Loss of Prefracture Ability to Walk  15 Feet Independently |
| Givens 2008 |  |  |  |  |  |  | ADL | loss of ability to perform two or more ADLs |
| Givens 2008 |  |  |  |  |  |  |  | Loss of Prefracture Ability to Walk  15 Feet Independently |
| Givens 2009 | USA | Pros.coh | 182/277 | 80/6.5 | General medical service | CAM | ADL | Katz index |
| Givens 2009 |  |  |  |  |  |  |  | Medicare claims  State of Connecticut Nurs ing Facility Registry  Interview |
| Givens 2009 |  |  |  |  |  |  |  | Medicare claims  State of Connecticut Nurs ing Facility Registry  Interview |
| Gleason 2015 | USA | Pros.coh | 236/330 | 76.7/5.2 | Surgery | CAM |  | Interview  Record review |
| Gleason 2015 |  |  |  |  |  |  |  | Interview  Record review |
| Gonçalves 2023 | Brazil | Pros.coh | 1089/789 | 66.7/10.4 | COVID-19 admission unit | CAM |  | 10-point cognitive screener (10-CS) |
| Gonzale 2005 | Spain | Pros.coh | 65/84 | 78.18/NA | Medical and traumatology wards | DSM-IV  CAM |  | Telephone interview |
| Gonzalez 2009 | Spain | Pros.coh | 208/334 | 77.9/7.6 | General medical ward | CAM |  | Telephone interviews  National Demographic Register |
| Gottschalk 2015 | USA | Pros.coh | 123/336 | 81.3/7.1 | Surgery-hip fracture | CAM |  | Cardiac Surgery database  National Death Index |
| Gou 2021 | USA | Pros.coh | 216/281 | 76.8/5.1 | Surgery | CAM |  | Medicare administrative claims files |
| Goudzwaard 2020 | Netherlands | Pros.coh | 297/246 | 79.1/8 | Cardiac surgery | DSM-IV |  | Dutch Civil Registry |
| Gual 2018 | Spain | Pros.coh | 364/545 | 85.8/6.7 | Surgery | CAM |  | Electronic health records |
| Guenther 2020 | Germany | Pros.coh | 94/31 | 70.71/NA | ICU | CAM-ICU | ADL | Alzheimer’s Disease Cooperative Study Group” (ACDS-ADL) |
| Han 2010 | USA | Pros.coh | 263/365 | 75/8.91 | ED | CAM-ICU |  | Medical records  Social security death index |
| Han 2010 |  |  |  |  |  |  |  | Medical records |
| Han 2010 |  |  |  |  |  |  |  | Social security death index |
| Han 2010 |  |  |  |  |  |  |  | Medical records |
| Han 2010 |  |  |  |  |  |  |  | Social security death index |
| Han 2010 |  |  |  |  |  |  |  | Medical records |
| Han 2022 | USA | Pros.coh | 582/462 | 61.35/14.11 | ED | bCAM |  | Interview  Record review |
| Han 2022 |  |  |  |  |  |  |  | Interview  Record review |
| Hapca 2018 | UK | Pros.coh | 2940/3784 | 79.2/NA | Acute hospital admission | OPRAA  CAM |  | Community Health Index data set |
| Hapca 2018 |  |  |  |  |  |  |  | Community Health Index data set |
| Hapca 2018 |  |  |  |  |  |  |  | Community Health Index data set |
| Hapca 2018 |  |  |  |  |  |  |  | Community Health Index data set |
| Hapca 2018 |  |  |  |  |  |  |  | Community Health Index data set |
| Hawley 2023 | UK | Pros.coh | 19230/44272 | 81/8.7 | Surgery-hip fracture | 4AT | Not Return to outdoor mobility | Interview |
| Hawley 2023 |  |  |  |  |  |  |  | Interview |
| Hempenius 2016 | Netherlands | RCT | 99/161 | 77.4/NA | Surgery | DSM IV  DOS |  | MMSE |
| Hempenius 2016 |  |  |  |  |  |  | ADL | CDS |
| Hempenius 2016 |  |  |  |  |  |  | No return to independent living situation | CDS |
| Hempenius 2016 |  |  |  |  |  |  | Use of supportive care Increased (Domestic) | CDS |
| Hempenius 2016 |  |  |  |  |  |  | Use of supportive care Increased (Care assistance) | CDS |
| Hempenius 2016 |  |  |  |  |  |  | Use of supportive care Increased (Informal care) | CDS |
| Hempenius 2016 |  |  |  |  |  |  |  | NA |
| Hempenius 2016 |  |  |  |  |  |  | Mental component summary | SF-36 |
| Hempenius 2016 |  |  |  |  |  |  | Physical component summary | SF-36 |
| Hempenius 2016 |  |  |  |  |  |  |  | NA |
| Hochang 2017 | USA | Pros.coh | 123/343 | 80.8/7 | Surgery | CAM |  | Hospital records  Obituaries  National Death Index  Social Security Death Index |
| Hochang 2017 |  |  |  |  |  |  |  | Hospital records  Obituaries  National Death Index  Social Security Death Index |
| Hochang 2017 |  |  |  |  |  |  |  | Hospital records  Obituaries  National Death Index  Social Security Death Index |
| Hochang 2017 |  |  |  |  |  |  |  | Hospital records  Obituaries  National Death Index  Social Security Death Index |
| Hochang 2017 |  |  |  |  |  |  |  | Hospital records  Obituaries  National Death Index  Social Security Death Index |
| Hochang 2017 |  |  |  |  |  |  |  | Hospital records  Obituaries  National Death Index  Social Security Death Index |
| Hofhuis 2022 | Netherlands | Pros.coh | 586/435 | 69.5/NA | Medical-surgical ICU | CAM-ICU | Physical Component Score | SF-12 |
| Hofhuis 2022 |  |  |  |  |  |  | Mental Component Score | SF-12 |
| Hölttä 2011 | Finland | Pros.coh | 37/218 | 86.4/NA | Acute geriatric wards and nursing homes | DSM-IV |  | Medical records  Central registers |
| Hölttä 2011 |  |  |  |  |  |  |  | Medical records  Central registers |
| Honda 2018 | Japan | Retro.coh | 373/238 | 75.2/12.3 | Cardiac admission unit | ICDSC |  | In-person interviews  Telephone interviews |
| Honda 2018 |  |  |  |  |  |  |  | In-person interviews  Telephone interviews |
| Honda 2018 |  |  |  |  |  |  |  | In-person interviews  Telephone interviews |
| Honda 2018 |  |  |  |  |  |  |  | In-person interviews  Telephone interviews |
| Hoogma 2023 | Belgium | Pros.coh | 148/102 | 80/NA | Cardiac surgery | CAM |  | CFQ |
| Hoogma 2023 |  |  |  |  |  |  | IADL | IADL |
| Hoogma 2023 |  |  |  |  |  |  |  | Phone and mail interviews |
| Hoogma 2023 |  |  |  |  |  |  |  | EQ-VAS |
| Hoogma 2023 |  |  |  |  |  |  |  | EQ-5D-5L |
| Hoogma 2023 |  |  |  |  |  |  |  | Phone and mail interviews |
| Hoogma 2023 |  |  |  |  |  |  |  | Phone and mail interviews |
| Hshieh 2017 | USA | Pros.coh | 236/330 | 77/5.2 | Surgery | CAM | IADL | IADL |
| Hshieh 2017 |  |  |  |  |  |  | Physical function | Composite score (ADL,IADL,SF-12) |
| Hshieh 2017 |  |  |  |  |  |  | IADL | IADL |
| Hshieh 2017 |  |  |  |  |  |  | Physical function | Composite score (ADL,IADL,SF-12) |
| Hshieh 2023 | USA | Pros.coh | 135/176 | 80.3/6.8 | General medicine | CAM  chart review |  | Medicare Provider Analysis and Review (MEDPAR)  Outpatient (Fee-for- Service)  Home Health Agency (Fee-for-Service) files |
| Hshieh 2023 |  |  |  |  |  |  |  | Medicare Provider Analysis and Review (MEDPAR)  Outpatient (Fee-for- Service)  Home Health Agency (Fee-for-Service) files |
| Hshieh 2023 |  |  |  |  |  |  |  | Medicare Provider Analysis and Review (MEDPAR)  Outpatient (Fee-for- Service)  Home Health Agency (Fee-for-Service) files |
| Hshieh 2023 |  |  |  |  |  |  |  | Medicare Provider Analysis and Review (MEDPAR)  Outpatient (Fee-for- Service)  Home Health Agency (Fee-for-Service) files |
| Hshieh 2023 |  |  |  |  |  |  |  | Medicare Provider Analysis and Review (MEDPAR)  Outpatient (Fee-for- Service)  Home Health Agency (Fee-for-Service) files |
| Hshieh 2023 |  |  |  |  |  |  |  | Medicare Provider Analysis and Review (MEDPAR)  Outpatient (Fee-for- Service)  Home Health Agency (Fee-for-Service) files |
| Hughes 2021 | USA | Pros.coh | 627/413 | 62.35/14.1 | Medical and surgical ICU | CAM-ICU |  | NA |
| Humbert 2021 | Switzerland | Pros.coh | 51/42 | NA/NA | Surgery-cardiac | CAM | ADL | Katz index |
| Humbert 2021 |  |  |  |  |  |  | IADL | Lawton index |
| Humbert 2021 |  |  |  |  |  |  |  | MMSE |
| Humbert 2021 |  |  |  |  |  |  |  | Clock Drawing Test (CDT) |
| Inouye 1998 | USA | Pros.coh | 291/436 | 78.9/6.9 | Non-intensive care wards | CAM | ADL | Katz index |
| Inouye 1998 |  |  |  |  |  |  |  | Telephone interview |
| Inouye 1998 |  |  |  |  |  |  |  | Telephone interview |
| Inouye 2016 | USA | Pros.coh | 235/325 | 76.7/5.2 | Surgery | CAM |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | GCP |
| Inouye 2016 |  |  |  |  |  |  |  | NA |
| Isaia 2009 | Italy | Pros.coh | 38/106 | 85.5/NA | Geriatric home hospitalisation service and geriatric hospital ward | CAM | ADL | Katz index |
| Isaia 2009 |  |  |  |  |  |  |  | Interviews Medical records |
| Iwata 2020 | Japan | Pros.coh | 214/194 | 79.72/NA | ICU | CAM-ICU |  | NA |
| Iwata 2020 |  |  |  |  |  |  |  | NA |
| Iwata 2020 |  |  |  |  |  |  |  | NA |
| Iwata 2020 |  |  |  |  |  |  |  | NA |
| Jackson 2014 | USA | Pros.coh | 420/401 | 61/14.87 | Medical-surgical ICU | CAM-ICU | ADL | Katz ADL |
| Jackson 2014 |  |  |  |  |  |  | IADL | Pfeffer Functional Activities Questionnaire (FAQ) |
| Jackson 2014 |  |  |  |  |  |  | ADL | Katz ADL |
| Jackson 2014 |  |  |  |  |  |  | IADL | Pfeffer Functional Activities Questionnaire (FAQ) |
| Jackson 2014 |  |  |  |  |  |  | Mental Component Score | SF-36 |
| Jackson 2014 |  |  |  |  |  |  | Mental Component Score | SF-36 |
| Jackson 2014 |  |  |  |  |  |  | Physical Component Score | SF-36 |
| Jackson 2014 |  |  |  |  |  |  | Physical Component Score | SF-36 |
| Jackson 2014 |  |  |  |  |  |  | Depression | Beck Depression Inventory-II (BDI-II) |
| Jackson 2014 |  |  |  |  |  |  | PTSD | Posttraumatic Stress Disorder Checklist (PCL-S) |
| Jackson 2014 |  |  |  |  |  |  | Depression | Beck Depression Inventory-II (BDI-II) |
| Jackson 2014 |  |  |  |  |  |  | PTSD | Posttraumatic Stress Disorder Checklist (PCL-S) |
| Jankowski 2011 | USA | Pros.coh | 206/212 | 72.1/NA | Surgery | CAM |  | SCWT |
| Jankowski 2011 |  |  |  |  |  |  |  | COWAT |
| Jankowski 2011 |  |  |  |  |  |  |  | AVLT percent retention |
| Jankowski 2011 |  |  |  |  |  |  |  | AVLT delayed recall |
| Jankowski 2011 |  |  |  |  |  |  |  | AVLT learning efficeincy |
| Jankowski 2011 |  |  |  |  |  |  |  | AVLTDelayed Recall |
| Jankowski 2011 |  |  |  |  |  |  |  | AVLTLearning Efficiency |
| Jankowski 2011 |  |  |  |  |  |  |  | AVLTPercent Retention |
| Jankowski 2011 |  |  |  |  |  |  |  | COWAT |
| Jankowski 2011 |  |  |  |  |  |  |  | SCWT |
| Jankowski 2011 |  |  |  |  |  |  | ADL | Katz index |
| Jankowski 2011 |  |  |  |  |  |  | IADL | Lawton and Bordy index |
| Jankowski 2011 |  |  |  |  |  |  | ADL | Katz index |
| Jankowski 2011 |  |  |  |  |  |  | IADL | Lawton and Bordy index |
| Janssen 2021 | Belgium | Pros.coh | 171/94 | 76.7/5.98 | Surgery | DOSS  DSM-V | Environment | World Health Organization Quality of Life – BREF (WHOQOL-BREF) |
| Janssen 2021 |  |  |  |  |  |  | Physical health | WHOQOL-BREF |
| Janssen 2021 |  |  |  |  |  |  | Psychological health | WHOQOL-BREF |
| Janssen 2021 |  |  |  |  |  |  | Social relationships | WHOQOL-BREF |
| Janssen 2021 |  |  |  |  |  |  | Environment | WHOQOL-BREF |
| Janssen 2021 |  |  |  |  |  |  | Physical health | WHOQOL-BREF |
| Janssen 2021 |  |  |  |  |  |  | Psychological health | WHOQOL-BREF |
| Janssen 2021 |  |  |  |  |  |  | Social relationships | WHOQOL-BREF |
| Janssen 2021 |  |  |  |  |  |  | Depression | Center for Epidemiological Studies Depression-16 (CESD-16) |
| Janssen 2021 |  |  |  |  |  |  | Depression | Center for Epidemiological Studies Depression-16 (CESD-16) |
| Janssen 2021 |  |  |  |  |  |  |  | MMSE |
| Janssen 2021 |  |  |  |  |  |  |  | MMSE |
| Jin 2017 | USA | Pros.coh | 430/499 | 74.35/8.16 | ED | CAM-ICU |  | Medical record review  Social Security Death Index |
| Jin 2017 |  |  |  |  |  |  |  | Medical record review  Social Security Death Index |
| Jin 2017 |  |  |  |  |  |  |  | Medical record review  Social Security Death Index |
| Jin 2017 |  |  |  |  |  |  |  | Medical record review  Social Security Death Index |
| Jin 2017 |  |  |  |  |  |  |  | Medical record review  Social Security Death Index |
| Jin 2017 |  |  |  |  |  |  |  | Medical record review  Social Security Death Index |
| Juliebø 2010 | Norway | Pros.coh | 82/249 | 83.3/6.9 | Orthopaedic departments | CAM |  | Death Register |
| Juliebø 2010 |  |  |  |  |  |  |  | Death Register |
| Kainz 2022 | Germany | Pros.coh | 222/0 | 67.09/NA | Postanesthesia care unit | CAM-ICU |  | CFQ |
| Kainz 2022 |  |  |  |  |  |  | Bodily pain | SF-36 |
| Kainz 2022 |  |  |  |  |  |  | Change in health state | SF-36 |
| Kainz 2022 |  |  |  |  |  |  | General health | SF-36 |
| Kainz 2022 |  |  |  |  |  |  | Mental | SF-36 |
| Kainz 2022 |  |  |  |  |  |  | Mental health | SF-36 |
| Kainz 2022 |  |  |  |  |  |  | Physical | SF-36 |
| Kainz 2022 |  |  |  |  |  |  | Physical functioning | SF-36 |
| Kainz 2022 |  |  |  |  |  |  | Role emotional | SF-36 |
| Kainz 2022 |  |  |  |  |  |  | Role physical | SF-36 |
| Kainz 2022 |  |  |  |  |  |  | Social functioning | SF-36 |
| Kainz 2022 |  |  |  |  |  |  | Vitality | SF-36 |
| Kakuma 2003 | Canada | Pros.coh | 40/67 | 80.1/7.9 | ED | CAM |  | Ministry of Health and Social Services data |
| Kakuma 2003 |  |  |  |  |  |  |  | Ministry of Health and Social Services data |
| Kakuma 2003 |  |  |  |  |  |  |  | Ministry of Health and Social Services data |
| Kat 2008 | Netherlands | Pros.coh | 30/82 | 82.7/NA | Surgery | CAM  DSM-IV |  | MMSE |
| Kat 2008 |  |  |  |  |  |  |  | IQCODE |
| Kat 2008 |  |  |  |  |  |  |  | Digit span forward |
| Kat 2008 |  |  |  |  |  |  |  | Digit span backwards |
| Kat 2008 |  |  |  |  |  |  |  | Cognitive Impairment Rating Scale (CIRS) |
| Kat 2008 |  |  |  |  |  |  |  | Cognitive Impairment Rating Scale (CIRS) |
| Kat 2008 |  |  |  |  |  |  |  | Interview |
| Kat 2008 |  |  |  |  |  |  |  | Neuropsychiatric Inventory Questionnaire (NPI-Q): distress |
| Kat 2008 |  |  |  |  |  |  |  | Geriatric Depression Scale (GDS) |
| Kat 2008 |  |  |  |  |  |  |  | Hospital database |
| Kat 2011 | Netherlands | Pros.coh | 138/465 | 77.9/6 | Surgery | CAM |  | Hospital database and other sources |
| Katz 2001 | USA | Pros.coh | 33/63 | 84.7/NA | Nursing home and congregate apartment | DSM-III-R |  | Physical Self Maintenance Scale (PSMS) |
| Katz 2001 |  |  |  |  |  |  |  | Buschke SRT verbal memory |
| Katz 2001 |  |  |  |  |  |  |  | EEG Alpha activity (right hemisphere) |
| Katz 2001 |  |  |  |  |  |  |  | EEG Delta activity (right hemisphere) |
| Katz 2001 |  |  |  |  |  |  |  | EEG Theta activity (right hemisphere) |
| Katz 2001 |  |  |  |  |  |  |  | MMSE |
| Katz 2001 |  |  |  |  |  |  |  | Stroop % correct |
| Katz 2001 |  |  |  |  |  |  |  | Stroop Interference |
| Katz 2001 |  |  |  |  |  |  |  | Verbal vigilance |
| Kennedy 2014 | USA | Pros.coh | 328/348 | 77/8 | ED | CAM |  | Telephone interview  Medical records review |
| Kennedy 2014 |  |  |  |  |  |  |  | Telephone interview  Medical records review |
| Kilicaslan 2022 | Turkey | Pros.coh | 192/223 | 74/8.92 | ED | CAM |  | Government death records  Electronic medical records |
| Kilicaslan 2022 |  |  |  |  |  |  |  | Government death records  Electronic medical records |
| Kilicaslan 2022 |  |  |  |  |  |  |  | Government death records  Electronic medical records |
| Kilicaslan 2022 |  |  |  |  |  |  |  | Government death records  Electronic medical records |
| Kilicaslan 2022 |  |  |  |  |  |  |  | Government death records  Electronic medical records |
| Kilicaslan 2022 |  |  |  |  |  |  |  | Government death records  Electronic medical records |
| Kilicaslan 2022 |  |  |  |  |  |  |  | Government death records  Electronic medical records |
| Kilicaslan 2022 |  |  |  |  |  |  |  | Government death records  Electronic medical records |
| Kilicaslan 2022 |  |  |  |  |  |  |  | Government death records  Electronic medical records |
| Kilicaslan 2022 |  |  |  |  |  |  |  | Government death records  Electronic medical records |
| Knauf 2019 | Germany | Pros.coh | 109/286 | 81/8.3 | ICU | CAM-ICU |  | Local registration offices |
| Korber 2021 | Germany | Pros.coh | 103/74 | 77.29/7.47 | Surgery | RASS  CAM-ICU |  | NA |
| Korber 2021 |  |  |  |  |  |  |  | NA |
| Korber 2021 |  |  |  |  |  |  |  | NA |
| Korber 2021 |  |  |  |  |  |  |  | NA |
| Koster 2012 | Netherlands | Pros.coh | 204/96 | 70.5/9.3 | Department of thoracic surgery | DOS |  | CFQ |
| Koster 2012 |  |  |  |  |  |  | Concentration problems | Designed by the authors (self-report) |
| Koster 2012 |  |  |  |  |  |  | Confusion | Designed by the authors (self-report) |
| Koster 2012 |  |  |  |  |  |  | Memory problems | Designed by the authors (self-report) |
| Koster 2012 |  |  |  |  |  |  |  | Telephone interview |
| Koster 2012 |  |  |  |  |  |  | Bodily pain | SF-36 |
| Koster 2012 |  |  |  |  |  |  | General health perceptions | SF-36 |
| Koster 2012 |  |  |  |  |  |  | Mental health | SF-36 |
| Koster 2012 |  |  |  |  |  |  | Physical functioning | SF-36 |
| Koster 2012 |  |  |  |  |  |  | Role limitations (Emotional problems) | SF-36 |
| Koster 2012 |  |  |  |  |  |  | Role limitations (Physical health) | SF-36 |
| Koster 2012 |  |  |  |  |  |  | Social functioning | SF-36 |
| Koster 2012 |  |  |  |  |  |  | Vitality | SF-36 |
| Koster 2012 |  |  |  |  |  |  | Emotional problems | Designed by the authors |
| Koster 2012 |  |  |  |  |  |  | Nightmares | Designed by the authors |
| Koster 2012 |  |  |  |  |  |  | Sleep disturbance | Designed by the authors |
| Koster 2012 |  |  |  |  |  |  |  | Medical Computer System |
| Kotfis 2019 | Poland | Pros.coh | 393/367 | 71.63/NA | Stroke unit | CAM-ICU |  | Telephone interview |
| Kotfis 2019 |  |  |  |  |  |  |  | Telephone interview |
| Kotfis 2019 |  |  |  |  |  |  |  | Telephone interview |
| Krogseth 2011 | Norway | Pros.coh | 27/79 | 82.7/6.9 | Orthopedic departments | CAM |  | DSM-IV |
| Krogseth 2014 | Norway | Pros.coh | 56/151 | 82.6/7.1 | Orthopedic departments | CAM |  | National population register |
| Krogseth 2016 | Norway | Pros.coh | 74/213 | 80.79/31.29 | Orthopedic departments | CAM |  | MMSE |
| Krogseth 2023 | Norway | Pros.coh | 72/138 | 84.5/8.3 | Domiciliary care services | DSM-V |  | MoCA |
| Krogseth 2023 |  |  |  |  |  |  |  | MoCA |
| Krzych 2014 | Poland | Pros.coh | 4031/1750 | NA/NA | Surgery-cardiac | DSM-IV |  | National healthcare database  National Cardiac Surgery Registry |
| Krzych 2014 |  |  |  |  |  |  |  | National healthcare database  National Cardiac Surgery Registry |
| Kunicki 2023 | USA | Pros.coh | 234/326 | 76.7/5.2 | Surgery | CAM  Medical record |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | GCP |
| Kunicki 2023 |  |  |  |  |  |  |  | Interview |
| Kunicki 2023 |  |  |  |  |  |  |  | Interview |
| Kunicki 2023 |  |  |  |  |  |  |  | Interview |
| Kunicki 2023 |  |  |  |  |  |  |  | Interview |
| Kunicki 2023 |  |  |  |  |  |  |  | Interview |
| Kunicki 2023 |  |  |  |  |  |  |  | Interview |
| Kunicki 2023 |  |  |  |  |  |  |  | Interview |
| Kunicki 2023 |  |  |  |  |  |  |  | Interview |
| Kunicki 2023 |  |  |  |  |  |  |  | Interview |
| Kunicki 2023 |  |  |  |  |  |  |  | Interview |
| Kunicki 2023 |  |  |  |  |  |  |  | Interview |
| KyoungJaMoon 2018 | South Korea | Pros.coh | 93/80 | 76/11.44 | Long-term care facilities | S-CAM |  | Face to-face interview  Telephone interview |
| KyoungJaMoon 2018 |  |  |  |  |  |  | Delirium vs no delirium no dementia | Face to-face interview  Telephone interview |
| KyoungJaMoon 2018 |  |  |  |  |  |  | DSD vs dementia only | Face to-face interview  Telephone interview |
| KyoungJaMoon 2018 |  |  |  |  |  |  | Delirium vs no delirium no dementia | Face to-face interview  Telephone interview |
| KyoungJaMoon 2018 |  |  |  |  |  |  | DSD vs dementia only | Face to-face interview  Telephone interview |
| KyoungJaMoon 2018 |  |  |  |  |  |  | Delirium vs no delirium no dementia | Face to-face interview  Telephone interview |
| KyoungJaMoon 2018 |  |  |  |  |  |  | DSD vs dementia only | Face to-face interview  Telephone interview |
| Labaste 2020 | France | Pros.coh | 125/48 | 73.29/8.97 | Cardiovascular surgery department | CAM-ICU |  | EQ5D NRS |
| Labaste 2020 |  |  |  |  |  |  |  | Telephone interview |
| Labaste 2023 | France | Pros.coh | 12/51 | 87.11/6.44 | Surgery-hip fracture | CAM |  | Telephone interview |
| Large 2013 | USA | Pros.coh | 40/9 | 74.68/NA | Urology clinic | CAM |  | Institutional database |
| Large 2013 |  |  |  |  |  |  |  | Institutional database |
| Large 2013 |  |  |  |  |  |  |  | Institutional database |
| Lee 2011 | South Korea | Pros.coh | 59/173 | 79/7.7 | Surgery-hip fracture | CAM | Housebound patient | Face to face interview |
| Lee 2011 |  |  |  |  |  |  | Poorer activity level | Telephone interview |
| Lee 2011 |  |  |  |  |  |  |  | Hospital record  Face to face interview  Telephone interview |
| Lee 2011 |  |  |  |  |  |  |  | Hospital record  Face to face interview  Telephone interview |
| Lee 2018 | Hong-Kong | Pros.coh | 413/187 | NA/NA | ICU | CAM-ICU |  | Hospital electronic database |
| Leslie 2005 | USA | Pros.coh | 365/554 | 80/6.5 | General medical units | CAM |  | Telephone interview  Obituary review  Social Security Death Index |
| Leslie 2008 | USA | RCT | 329/512 | 80.2/6.4 | General medical units | CAM |  | Hospital records  Connecticut Long-term Care Registry |
| Lewis 1995 | USA | Pros.coh | NA | NA/NA | ED | CAM |  | Hospital record  Telephone interveiw |
| Li 2019 | China | Pros.coh | 58/53 | 68.95/12.16 | Department of cardiology | CAM-ICU |  | NA |
| Li 2019 |  |  |  |  |  |  |  | NA |
| Li 2021 | Taiwan | Pros.coh | 195/103 | 61.9/12.5 | Surgery-cardiac | CAM | POD vs No POD and frailty | Medical record  Interview |
| Li 2021 |  |  |  |  |  |  | Frailty and POD vs frailty only | Medical record  Interview |
| Li 2021 |  |  |  |  |  |  | POD vs No POD and frailty | Medical record  Interview |
| Li 2021 |  |  |  |  |  |  | Frailty and POD vs frailty only | Medical record  Interview |
| Li 2021 |  |  |  |  |  |  | POD vs No POD and frailty | Medical record  Interview |
| Li 2021 |  |  |  |  |  |  | Frailty and POD vs frailty only | Medical record  Interview |
| Li 2021 |  |  |  |  |  |  | Frailty and POD vs frailty only | Medical record  Interview |
| Li 2021 |  |  |  |  |  |  | POD vs No POD and frailty | Medical record  Interview |
| Liang 2014 | Taiwan | Pros.coh | 108/124 | 74.7/7.8 | Orthopaedic surgery | CAM | IADL | Lawton-Brody Instrumental ADL |
| Liang 2014 |  |  |  |  |  |  | ADL | Barthel Index |
| Liang 2014 |  |  |  |  |  |  | ADL | Barthel Index |
| Liang 2014 |  |  |  |  |  |  | IADL | Lawton-Brody Instrumental ADL |
| Liang 2014 |  |  |  |  |  |  | IADL | Lawton-Brody Instrumental ADL |
| Liang 2014 |  |  |  |  |  |  | ADL | Barthel Index |
| Liang 2014 |  |  |  |  |  |  | IADL | Lawton-Brody Instrumental ADL |
| Liang 2014 |  |  |  |  |  |  | ADL | Barthel Index |
| Liang 2014 |  |  |  |  |  |  | ADL | Barthel Index |
| Liang 2014 |  |  |  |  |  |  | IADL | Lawton-Brody Instrumental ADL |
| Liang 2014 |  |  |  |  |  |  | ADL | Barthel Index |
| Liang 2014 |  |  |  |  |  |  | IADL | Lawton-Brody Instrumental ADL |
| Liang 2014 |  |  |  |  |  |  | ADL | Barthel Index |
| Liang 2014 |  |  |  |  |  |  | IADL | Lawton-Brody Instrumental ADL |
| Liang 2014 |  |  |  |  |  |  | ADL | Barthel Index |
| Liang 2014 |  |  |  |  |  |  | IADL | Lawton-Brody Instrumental ADL |
| Lima 2010 | Brazil | Pros.coh | 93/106 | 77.9/NA | Geriatric Unit | DSM-IV |  | Telephone interview |
| Lingehall 2017 | Sweden | Pros.coh | 79/35 | 76.5/4.4 | Cardiac surgery | DSM-IV-TR |  | MMSE |
| Lingehall 2017 |  |  |  |  |  |  |  | MMSE |
| Lingehall 2017 |  |  |  |  |  |  |  | MMSE |
| Lingehall 2017 |  |  |  |  |  |  |  | DSM-IV-TR |
| Lundström 2003 | Sweden | Pros.coh | 18/60 | 79.1/8.1 | Orthopedic Surgery | DSM-IV |  | DSM-IV |
| Lundström 2003 |  |  |  |  |  |  |  | Interview |
| Luz 2020 | Brazil | Pros.coh | 120/96 | 65.25/NA | ICU | CAM-ICU |  | WHOQOL-BREF |
| Luz 2020 |  |  |  |  |  |  |  | WHOQOL-BREF |
| Luz 2020 |  |  |  |  |  |  |  | WHOQOL-BREF |
| Luz 2020 |  |  |  |  |  |  |  | WHOQOL-BREF |
| Luz 2020 |  |  |  |  |  |  |  | Telephone interview |
| Maclullich 2019 | UK | Pros.coh | 349/436 | 81.4/6.4 | ED and  acute general medical wards | 4AT  CAM  DSM-4  DRS-R98 |  | Medical and social care records |
| Maclullich 2019 |  |  |  |  |  |  |  | Medical and social care records |
| Marcantonio 2005 | USA | Pros.coh | 156/340 | NA | Skilled nursing facilities | CAM |  | Medical record |
| Mariz 2013 | Portugal | Pros.coh | 131/107 | 61.7 | ED | CAM-ICU |  | Electronic medical record  Interview |
| Mariz 2013 |  |  |  |  |  |  |  | Electronic medical record  Interview |
| Marrama 2022 | France | Pros.coh | 134/114 | 70.4/12.7 | ED | DSM-IV  DRS |  | National Institute on Aging-Alzheimer’s Association criteria |
| Marrama 2022 |  |  |  |  |  |  |  | National Institute on Aging-Alzheimer’s Association criteria |
| Marrama 2022 |  |  |  |  |  |  |  | National Institute on Aging-Alzheimer’s Association criteria |
| Marrama 2022 |  |  |  |  |  |  |  | National Institute on Aging-Alzheimer’s Association criteria |
| Marrama 2022 |  |  |  |  |  |  |  | National Institute on Aging-Alzheimer’s Association criteria |
| Marrama 2022 |  |  |  |  |  |  |  | National Institute on Aging-Alzheimer’s Association criteria |
| Marrama 2022 |  |  |  |  |  |  |  | National Institute on Aging-Alzheimer’s Association criteria |
| Marrama 2022 |  |  |  |  |  |  |  | National Institute on Aging-Alzheimer’s Association criteria |
| Marrama 2022 |  |  |  |  |  |  |  | National Institute on Aging-Alzheimer’s Association criteria |
| Marrama 2022 |  |  |  |  |  |  |  | National Institute on Aging-Alzheimer’s Association criteria |
| Marrama 2022 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Marrama 2022 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Marrama 2022 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Marrama 2022 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Marrama 2022 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Marrama 2022 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Marrama 2022 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Marrama 2022 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Marrama 2022 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Marrama 2022 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Mathies 2018 | Germany | Pros.coh | 23/45 | 81.5/5.7 | Geriatric unit | Nu-DESC  DRS |  | Neuropsychological testing |
| Mauri 2021 | Germany | Pros.coh | 322/339 | 82.3/6.6 | Surgery-cardiac | CAM-ICU |  | NA |
| Mauri 2021 |  |  |  |  |  |  |  | NA |
| Mauri 2021 |  |  |  |  |  |  |  | NA |
| Mauri 2021 |  |  |  |  |  |  |  | NA |
| Mazzola 2015 | Italy | Pros.coh | 40/235 | 89.4/3.8 | Orthogeriatric Unit | DSM-IV-TR |  | Telephone interview |
| McAvay 2006 | USA | Pros.coh | 172/261 | 79.8/6.3 | General medicine service | CAM |  | Interviews  Local obituaries  Social Security Death Index.  Death certificates  Review of medical records  Medicare enrolment and claims databases |
| McAvay 2006 |  |  |  |  |  |  |  | Interviews  Local obituaries  Social Security Death Index.  Death certificates  Review of medical records  Medicare enrolment and claims databases |
| McCusker 2001 | Canada | Pros.coh | 117/198 | NA/NA | ED | CAM | Delirium only vs neither | MMSE |
| McCusker 2001 |  |  |  |  |  |  | Delirium & dementia vs dementia only | MMSE |
| McCusker 2001 |  |  |  |  |  |  | Without dementia | MMSE |
| McCusker 2001 |  |  |  |  |  |  | With dementia | MMSE |
| McCusker 2001 |  |  |  |  |  |  | ADL | Barthel Index |
| McCusker 2001 |  |  |  |  |  |  | IADL | OARS |
| McCusker 2001 |  |  |  |  |  |  | IADL | OARS |
| McCusker 2001 |  |  |  |  |  |  | ADL | Barthel Index |
| McCusker 2001 |  |  |  |  |  |  | IADL | OARS |
| McCusker 2001 |  |  |  |  |  |  |  | Interview |
| McCusker 2001 |  |  |  |  |  |  |  | Interview |
| McCusker 2002 | Canada | Pros.coh | 128/233 | NA/NA | Medical services unit | CAM |  | NA |
| McCusker 2014 | Canada | Pros.coh | 120/154 | NA/NA | Long-term care | CAM |  | MMSE |
| McCusker 2014 |  |  |  |  |  |  |  | Barthel Index |
| McCusker 2014 |  |  |  |  |  |  |  | NA |
| Meng-ChangTsai 2013 | Taiwan | Pros.coh | 224/205 | NA/NA | Consultation-Liaison Service | DSM-IV |  | Health registration data |
| Meng-ChangTsai 2013 |  |  |  |  |  | CAM  MDAS |  | Health registration data |
| Meng-ChangTsai 2013 |  |  |  |  |  |  |  | Health registration data |
| Minden 2005 | USA | Pros.coh | 31/4 | 67.5/8 | Surgery |  | Energy | SF-36 |
| Minden 2005 |  |  |  |  |  |  | Health perception | SF-36 |
| Minden 2005 |  |  |  |  |  |  | Mental health | SF-36 |
| Minden 2005 |  |  |  |  |  |  | Pain | SF-36 |
| Minden 2005 |  |  |  |  |  |  | Physical function | SF-36 |
| Minden 2005 |  |  |  |  |  |  | Role, emotional | SF-36 |
| Minden 2005 |  |  |  |  |  |  | Role, physical | SF-36 |
| Minden 2005 |  |  |  |  |  |  | Social function | SF-36 |
| Minden 2005 |  |  |  |  |  |  |  | Telephone interview  Medical record |
| Miu 2013 | Hong Kong | Pros.coh | 163/151 | 72.9/10.3 | Acute stroke unit | CAM |  | Electronic patient record |
| Miu 2013 |  |  |  |  |  |  |  | NA |
| Miu 2013 |  |  |  |  |  |  |  | NA |
| Miu 2013 |  |  |  |  |  |  |  | mRs |
| Miu 2013 |  |  |  |  |  |  |  | mRs |
| Miu 2013 |  |  |  |  |  |  |  | Barthel index |
| Miu 2013 |  |  |  |  |  |  |  | Barthel index |
| Miyamoto 2021 | Japan | Pros.coh | 121/83 | 71.29/15.09 | ICU | CAM-ICU | Anxiety | HADS |
| Miyamoto 2021 |  |  |  |  |  |  | Depression | HADS |
| Miyamoto 2021 |  |  |  |  |  |  | PTSD | IES-R |
| Miyamoto 2021 |  |  |  |  |  |  | Anxiety | HADS |
| Miyamoto 2021 |  |  |  |  |  |  | Depression | HADS |
| Miyamoto 2021 |  |  |  |  |  |  | PTSD | IES-R |
| Miyamoto 2021 |  |  |  |  |  |  | Anxiety | HADS |
| Miyamoto 2021 |  |  |  |  |  |  | Depression | HADS |
| Miyamoto 2021 |  |  |  |  |  |  | PTSD | IES-R |
| Miyamoto 2021 |  |  |  |  |  |  | Anxiety | HADS |
| Miyamoto 2021 |  |  |  |  |  |  | Depression | HADS |
| Miyamoto 2021 |  |  |  |  |  |  | ADL | Barthel Index |
| Miyamoto 2021 |  |  |  |  |  |  | ADL | Barthel Index |
| Miyamoto 2021 |  |  |  |  |  |  | ADL | Barthel Index |
| Miyamoto 2021 |  |  |  |  |  |  | ADL | Barthel Index |
| Monacelli 2018 | Italy | Pros.coh | 58/160 | 86.54/6.02 | Orthogeriatric Unit | DSM-V  4AT | ADL | Barthel Index |
| Monacelli 2018 |  |  |  |  |  |  | ADL | Barthel Index |
| Monacelli 2018 |  |  |  |  |  |  | Hand-grip strength | Hand-grip strength |
| Monacelli 2018 |  |  |  |  |  |  | IADL | IADL |
| Monacelli 2018 |  |  |  |  |  |  |  | NA |
| Morandi 2014 | Italy | Pros.coh | 734/1908 | 77/8.9 | Rehabilitation unit | CAM  DSM-IV-TR | Walking dependence | Telephone interview |
| Morandi 2014 |  |  |  |  |  |  |  | Telephone interview |
| Morandi 2014 |  |  |  |  |  |  |  | Telephone interview |
| Moreno-Gavino 2012 | Spain | Pros.coh | 760/674 | 77.9/9.8 | Medical admission unit | CAM |  | NA |
| Moskowitz 2017 | USA | Pros.coh | 167/5 | 64/8 | Surgery | CAM-ICU |  | Medical record |
| Muller 2023 | Germany | Pros.coh | 50/49 | 70.3/7 | Department of neurosurgery | Nu-DESC  DSM-V |  | Consortium to Establish a Registry for Alzheimer’s Disease Plus test battery (CERAD-NP) |
| Muresan 2016 | Ireland | Pros.coh | 100/100 | 81.13/6.45 | Medical inpatients | CAM |  | Hospital computerized database  Telephone interview  Local and or national database |
| Murray 1993 | USA | Pros.coh | 96/195 | 80.5/7.6 | Medical admission unit | DSM-III  DSI  medical chart |  | Katz activities of daily living (ADL) index |
| Murray 1993 |  |  |  |  |  |  |  | Katz activities of daily living (ADL) index |
| Murray 1993 |  |  |  |  |  |  |  | Katz activities of daily living (ADL) index |
| Murray 1993 |  |  |  |  |  |  |  | Katz activities of daily living (ADL) index |
| Murray 1993 |  |  |  |  |  |  |  | Katz activities of daily living (ADL) index |
| Murray 1993 |  |  |  |  |  |  |  | Katz activities of daily living (ADL) index |
| Muzzana 2022 | Italy | Pros.coh | 98/104 | 76.24/6.72 | Surgical and traumatological/  orthopaedic wards | DSM-V  DOS  4A's |  | Telephone follow-up |
| Naidech 2013 | USA | Pros.coh | 62/52 | 63/13.8 | ICU | CAM-ICU | Applied cognition executive function | Neuro-QOL |
| Naidech 2013 |  |  |  |  |  |  | Fatigue | Neuro-QOL |
| Naidech 2013 |  |  |  |  |  |  | Fine motor | Neuro-QOL |
| Naidech 2013 |  |  |  |  |  |  | Mobility | Neuro-QOL |
| Neerland 2017 | Norway | Pros.coh | 405/131 | 83.78/NA | Orthopaedic ward | CAM |  | ICD-10  Medical records  IQCODE-SF |
| Nerdal 2022 | Norway | Pros.coh | 71/68 | 71.4/13.4 | Medical admission unit -cardiac | CAM | Anxiety | HADS |
| Nerdal 2022 |  |  |  |  |  |  | Depression | HADS |
| Nerdal 2022 |  |  |  |  |  |  | Neuropsychiatry symptoms | NPQI |
| Nerdal 2022 |  |  |  |  |  |  | Anxiety | HADS |
| Nerdal 2022 |  |  |  |  |  |  | Depression | HADS |
| Nerdal 2022 |  |  |  |  |  |  | Neuropsychiatry symptoms | NPQI |
| Nerdal 2022 |  |  |  |  |  |  | Anxiety | HADS |
| Nerdal 2022 |  |  |  |  |  |  | Depression | HADS |
| Nerdal 2022 |  |  |  |  |  |  | Neuropsychiatry symptoms | NPQI |
| Nerdal 2022 |  |  |  |  |  |  |  | MoCA |
| Nerdal 2022 |  |  |  |  |  |  |  | MoCA |
| Nerdal 2022 |  |  |  |  |  |  |  | MoCA |
| Nerdal 2022 |  |  |  |  |  |  |  | Global Deterioration Scale (GDS) |
| Nerdal 2022 |  |  |  |  |  |  |  | Global Deterioration Scale (GDS) |
| Nerdal 2022 |  |  |  |  |  |  |  | Global Deterioration Scale (GDS) |
| Neufeld 2015 | USA | Pros.coh | 34/47 | 77.5/5.4 | Post-anesthesia care unit | DSM IV |  | Medical records |
| Neufeld 2015 |  |  |  |  |  |  | Verbal fluency: Letter-cued (p) fluency) | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | Verbal fluency: Category-cued (animals) fluency) | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | MMSE | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | Digit Span: forward | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | Digit Span: backward | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | Verbal fluency: Letter-cued (s) fluency) | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | Digit Span: backward | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | Digit Span: forward | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | Verbal fluency: Category-cued (animals) fluency | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | Verbal fluency: Letter-cued (p) fluency | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | Verbal fluency: Letter-cued (s) fluency | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | MMSE | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | Verbal fluency: Letter-cued (s+p) fluency | Cognitive testing |
| Neufeld 2015 |  |  |  |  |  |  | ADL | ADL |
| Neufeld 2015 |  |  |  |  |  |  | IADL | IADL |
| Neufeld 2015 |  |  |  |  |  |  | Fall | Fall |
| Neufeld 2015 |  |  |  |  |  |  | Change from independent to dependent | Interview |
| Neufeld 2015 |  |  |  |  |  |  | ADL | ADL |
| Neufeld 2015 |  |  |  |  |  |  | IADL | IADL |
| Neufeld 2015 |  |  |  |  |  |  |  | Medical records |
| Nguyen 2018 | Canada | Pros.coh | 137/60 | 68.88/11.57 | Surgery-cardiac | CAM-ICU  CAM |  | Memory Impairment Screen(MIS) |
| Nguyen 2018 |  |  |  |  |  |  |  | Category Fluency Test (CFT) |
| Nguyen 2018 |  |  |  |  |  |  |  | Memory Impairment Screen(MIS) |
| Nguyen 2018 |  |  |  |  |  |  |  | Category Fluency Test (CFT) |
| Nguyen 2018 |  |  |  |  |  |  |  | Memory Impairment Screen(MIS) |
| Nguyen 2018 |  |  |  |  |  |  |  | Category Fluency Test (CFT) |
| Nguyen 2018 |  |  |  |  |  |  | Alcohol | AUDIT-C |
| Nguyen 2018 |  |  |  |  |  |  | Alcohol | AUDIT-C |
| Nguyen 2018 |  |  |  |  |  |  | Alcohol | AUDIT-C |
| Nguyen 2018 |  |  |  |  |  |  | Depression | PHQ-9 |
| Nguyen 2018 |  |  |  |  |  |  | Depression | PHQ-9 |
| Nguyen 2018 |  |  |  |  |  |  | Anxiety/depression issue | EuroQoL-5D anxiety/depression |
| Nguyen 2018 |  |  |  |  |  |  | Alcohol | AUDIT-C |
| Nguyen 2018 |  |  |  |  |  |  | Anxiety/depression issue | EuroQoL-5D anxiety/depression |
| Nguyen 2018 |  |  |  |  |  |  | Anxiety/depression issue | EuroQoL-5D anxiety/depression |
| Nguyen 2018 |  |  |  |  |  |  | EuroQoL-5D anxiety/depression issue (>1) | EuroQoL-5D anxiety/depression |
| Nishizawa 2023 | Japan | Retrospective cohort | 532/545 | 67.6/14 | Hospital or emergency room | CAM-ICU  DRS  DOSS |  | Hospital electronic medical records  Obituaries |
| Nishizawa 2023 |  |  |  |  |  |  |  | Hospital electronic medical records  Obituaries |
| Nishizawa 2023 |  |  |  |  |  |  |  | Hospital electronic medical records  Obituaries |
| Nishizawa 2023 |  |  |  |  |  |  |  | Hospital electronic medical records  Obituaries |
| Nishizawa 2023 |  |  |  |  |  |  |  | Hospital electronic medical records  Obituaries |
| Nishizawa 2023 |  |  |  |  |  |  |  | Hospital electronic medical records  Obituaries |
| Noriega 2015 | Spain | Pros.coh | 103/100 | 81.6/4.7 | Cardiology unit | CAM | Need for help | ADLs |
| Noriega 2015 |  |  |  |  |  |  |  | ADLs |
| Noriega 2015 |  |  |  |  |  |  | Need for help | ADLs |
| Noriega 2015 |  |  |  |  |  |  |  | ADLs |
| Noriega 2015 |  |  |  |  |  |  |  | Telephone interview |
| Noriega 2015 |  |  |  |  |  |  |  | Telephone interview |
| Noriega 2015 |  |  |  |  |  |  |  | Telephone interview |
| Noriega 2015 |  |  |  |  |  |  |  | Telephone interview |
| Ogawa 2017 | Japan | Pros.coh | 183/143 | 68.6/14.8 | Surgery-cardiac | ICDSC | Frailty | Handgrip strength and usual walking speed |
| Ojagbemi 2020 | Nigeria | Pros.coh | 89/61 | 60.1/12.7 | Medical admission unit-Stroke | CAM  DSM V | ADL | Barthel index |
| Ojagbemi 2020 |  |  |  |  |  |  |  | MMSE |
| Ojagbemi 2020 |  |  |  |  |  |  |  | 10-words list learning and delayed recall test |
| Ojagbemi 2020 |  |  |  |  |  |  |  | MMSE |
| Ojagbemi 2020 |  |  |  |  |  |  |  | Animal naming test |
| Ojagbemi 2021 | Nigeria | Pros.coh | 89/61 | 60.2/12.8 | Medical admission unit -Stroke | CAM  DSM V |  | Medical record |
| Ojagbemi 2021 |  |  |  |  |  |  |  | Medical record |
| O'Keeffe 1997 | Ireland | Pros.coh | 146/79 | 82/NA | Geriatric unit | DSM III |  | Interview |
| O'Keeffe 1997 |  |  |  |  |  |  |  | Interview |
| Oldenbeuving 2011 | Netherlands | Pros.coh | 288/239 | 65.34/49.8 | Stroke units | CAM | ADL | Barthel Index |
| Olofsson 2018 | Sweden | RCT | 34/101 | 82.17/NA | Femoral neck surgery | Modified OBS scale  DSM‐IV‐TR |  | DSM-IV |
| Olofsson 2018 |  |  |  |  |  |  |  | DSM-IV |
| Olofsson 2018 |  |  |  |  |  |  |  | DSM-IV |
| Olofsson 2018 |  |  |  |  |  |  |  | DSM-IV |
| Olofsson 2018 |  |  |  |  |  |  | Depression | GDS |
| Olofsson 2018 |  |  |  |  |  |  | Depression | GDS |
| Olofsson 2018 |  |  |  |  |  |  | Depression | GDS |
| Olofsson 2018 |  |  |  |  |  |  | Depression | GDS |
| Olofsson 2018 |  |  |  |  |  |  | Depression | GDS |
| Olofsson 2018 |  |  |  |  |  |  | Depression | GDS |
| Olofsson 2018 |  |  |  |  |  |  |  | Medical record  Interview |
| Olofsson 2018 |  |  |  |  |  |  |  | Medical record  Interview |
| Olofsson 2018 |  |  |  |  |  |  |  | Medical record  Interview |
| Olofsson 2018 |  |  |  |  |  |  |  | Medical record  Interview |
| Olofsson 2018 |  |  |  |  |  |  |  | MMSE |
| Olofsson 2018 |  |  |  |  |  |  |  | MMSE |
| Olofsson 2018 |  |  |  |  |  |  |  | MMSE |
| Pak 2020 | Japan | Pros.coh | 68/64 | 81.59/8.99 | Medical admission unit -cardiac | DSM-V |  | NA |
| Pak 2020 |  |  |  |  |  |  |  | NA |
| Pandharipande 2013 | USA | Pros.coh | 234/233 | 59.59/14.86 | Medical or surgical ICU | CAM-ICU |  | Trail Making Test, Part B (Trails B) |
| Pandharipande 2013 |  |  |  |  |  |  |  | Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) |
| Pandharipande 2013 |  |  |  |  |  |  |  | Trail Making Test, Part B (Trails B) |
| Pandharipande 2013 |  |  |  |  |  |  |  | Repeatable Battery for the Assessment of Neuropsychological Status (RBANS) |
| Pasinska 2019 | Poland | Pros.coh | 352/398 | 71.8/13.1 | Medical admission unit -stroke | bCAM  CAM-ICU  DSM-5 | IADL | IADL |
| Pasinska 2019 |  |  |  |  |  |  | Disablity | mRS |
| Pasinska 2019 |  |  |  |  |  |  | IADL | IADL |
| Pasinska 2019 |  |  |  |  |  |  | Disablity | mRS |
| Pasinska 2019 |  |  |  |  |  |  |  | Face to face interview  Telephone interveiw |
| Pasinska 2019 |  |  |  |  |  |  |  | Face to face interview  Telephone interveiw |
| Patel 2014 | USA | Pros.coh | 57/45 | 59.62/15.72 | Medical ICU | CAM-ICU |  | Interview  Medical records  Social Security Death Index |
| Patel 2014 |  |  |  |  |  |  |  | Interview  Medical records  Social Security Death Index |
| Patel 2014 |  |  |  |  |  |  |  | Interview  Medical records  Social Security Death Index |
| Paulino 2023 | Portugal | Pros.coh | 60/46 | NA/NA | Admitted to medical and surgical ICU | ICDSC | ADL | Katz ADL Index |
| Paulino 2023 |  |  |  |  |  |  | ADL | Katz ADL Index |
| Paulino 2023 |  |  |  |  |  |  |  | Telephone interview |
| Paulino 2023 |  |  |  |  |  |  |  | Telephone interview |
| Paulino 2023 |  |  |  |  |  |  |  | Telephone interview |
| Paulino 2023 |  |  |  |  |  |  |  | Telephone interview |
| Paulino 2023 |  |  |  |  |  |  |  | Telephone interview |
| Paulino 2023 |  |  |  |  |  |  |  | Telephone interview |
| Pendlebury 2015 | UK | Pros.coh | 236/267 | 61.83/61.84 | Acute general medicine | CAM  DSM-IV |  | Electronic hospital records |
| Penfold 2023 | UK | Retro.coh | 372/968 | 79.5/10.3 | ED and orthopaedic ward | 4AT |  | Medical Record system |
| Penfold 2023 |  |  |  |  |  |  |  | Medical Record system |
| Pitkala 2005 | Finland | Pros.coh | 78/347 | NA/NA | Acute geriatric wards and nursing homes | DSM IV |  | Medical records  Registers |
| Pitkala 2005 |  |  |  |  |  |  |  | Medical records  Registers |
| Pitkala 2005 |  |  |  |  |  |  |  | Medical records  Registers |
| Pompei 1994 | USA | Pros.coh | 190/242 | 74.35/NA | Medical and surgical wards | DSM-III-R |  | Telephone interview |
| Praditsuwan 2013 | Thailand | Pros.coh | 114/111 | 78/5.9 | General medical wards | DSM-IV |  | NA |
| Qu 2018 | China | Pros.coh | 184/77 | 61.3/14.8 | Medical admission unit -Stroke | CAM |  | mRS |
| Qu 2018 |  |  |  |  |  |  | IADL | Lawton IADL |
| Qu 2018 |  |  |  |  |  |  |  | mRS |
| Qu 2018 |  |  |  |  |  |  | IADL | Lawton IADL |
| Qu 2018 |  |  |  |  |  |  |  | Telephone interview |
| Qu 2018 |  |  |  |  |  |  |  | Telephone interview |
| Quinlan 2011 | Denmark, France, Germany, Great Britain, Greece, Netherlands, Spain, USA | Pros.coh | 484/464 | 68.62/NA | Surgery-non-cardiac | Medical record  DSM-III |  | Six yes/no question about limitation on personal and  social functioning |
| Raats 2015 | Netherlands | Pros.coh | 148/103 | NA/NA | Surgery | DOS |  | Mortality database (COMPET&T) |
| Raats 2015 |  |  |  |  |  |  |  | Mortality database (COMPET&T) |
| Raats 2015 |  |  |  |  |  |  |  | Mortality database (COMPET&T) |
| Raats 2015 |  |  |  |  |  |  |  | Mortality database (COMPET&T) |
| Raats 2015 |  |  |  |  |  |  |  | Mortality database (COMPET&T) |
| Racine 2018 | USA | Pros.coh | 234/326 | 76.7/5.2 | Surgery | CAM | Decline in physical function | ADL IADL SF-12 |
| Racine 2018 |  |  |  |  |  |  | New impairment in cognitive IADL | IADL |
| Racine 2018 |  |  |  |  |  |  |  | Medical record |
| Racine 2018 |  |  |  |  |  |  |  | Medical record |
| Racine 2020 | USA | Pros.coh | 55/85 | 76.1/4.5 | Surgery | CAM  chart review |  | General Cognitive Performance (GCP) |
| Racine 2020 |  |  |  |  |  |  |  | General Cognitive Performance (GCP) |
| Racine 2020 |  |  |  |  |  |  |  | General Cognitive Performance (GCP) |
| Radcliffe 2023 | Australia | Pros.coh | 114/156 | 86.68/NA | Aged care | CAM |  | Medical record |
| Radcliffe 2023 |  |  |  |  |  |  |  | Medical record |
| Radinovic 2014 | Serbia | Pros.coh | 71/206 | 78/8.2 | Surgery-hip fracture | CAM |  | Face to face interview |
| Rahkonen 2001 | Finland | Pros.coh | 46/153 | 87.3/2.4 | Community | DSM-III-R |  | DSM-III-R |
| Rahkonen 2001 |  |  |  |  |  |  |  | Medical records  National Death Register |
| Rawle 2021 | UK | Pros.coh | 237/340 | 83.2/7.4 | Acute medical unit | s-CAM |  | Functional Assessment Staging Tool (FAST) |
| Rawle 2021 |  |  |  |  |  |  |  | DSM-IV  MMSE  Medical notes |
| Rawle 2021 |  |  |  |  |  |  |  | Office for National Statistics |
| Rego 2022 | Brazil | Pros.coh | 195/82 | 68.43/NA | ICU | CAM-ICU  CAM-ICU-7 |  | Governmental database |
| Reynish 2017 | UK | Pros.coh | 9215/799 | 79.3/NA | Acute medical unit | CAM  Clinical diagnosis  AMT | Delirium alone vs no cognitive disorder | Older Persons Routine Acute Assessment (OPRAA) |
| Reynish 2017 |  |  |  |  |  |  | DSD vs dementia alone | Older Persons Routine Acute Assessment (OPRAA) |
| Reynish 2017 |  |  |  |  |  |  | Delirium alone vs no cognitive disorder | Older Persons Routine Acute Assessment (OPRAA) |
| Reynish 2017 |  |  |  |  |  |  | DSD vs dementia alone | Older Persons Routine Acute Assessment (OPRAA) |
| Richardson 2021 | UK | Pros.coh | 96/109 | 82/6.5 | Community | DSM V |  | Geriatric Mental State  Cambridge Cognitive Examination  MMSE |
| Richardson 2021\_2 | UK | Pros.coh | 61/74 | 76.14/NA | Community | I-AGeD |  | MMSE |
| Richardson 2021\_2 |  |  |  |  |  |  |  | MMSE |
| Rizzi 2015 | Spain | Pros.coh | 93/146 | 81.7/9.4 | ED | bCAM |  | Interview |
| Robinson 2009 | USA | Pros.coh | NA | 64.55/NA | Surgery | CAM-ICU |  | Chart review  Telephone interview |
| Robinson 2009 |  |  |  |  |  |  |  | Chart review  Telephone interview |
| Robinson 2011 | USA | Pros.coh | 166/6 | 64/8 | Surgery | CAM-ICU |  | Chart review  Telephone interview |
| Robinson 2011 |  |  |  |  |  |  |  | Chart review  Telephone interview |
| Rockwood 1999 | Canada | Pros.coh | 87/116 | 79/NA | General medicine services | DSM-IV |  | IQCODE |
| Rockwood 1999 |  |  |  |  |  |  |  | Interview |
| Rolandi 2020 | Italy | Pros.coh | 511/589 | NA/NA | Community | DSM-IV-TR |  | DSM IV-TR |
| Rollo 2022 | Italy | Pros.coh | 62/41 | 72.88/13.53 | Stroke unit | CAM-ICU |  | mRS |
| Rollo 2022 |  |  |  |  |  |  |  | mRS = 6 |
| Rosenthal 2017 | USA | Pros.coh | 92/82 | 63.5/NA | Neuro/ Spine ICU | CAM-ICU | HRQoL (delirium with agitation vs agitation without delirium) | Neuro-QOL |
| Rosenthal 2017 |  |  |  |  |  |  | HRQoL (delirium without agitation vs neither agitation nor delirious) | Neuro-QOL |
| Rosenthal 2017 |  |  |  |  |  |  | HRQoL (delirium with agitation vs agitation without delirium) | Neuro-QOL |
| Rosenthal 2017 |  |  |  |  |  |  | HRQoL (delirium without agitation vs neither agitation nor delirious) | Neuro-QOL |
| Rosenthal 2017 |  |  |  |  |  |  | HRQoL (delirium with agitation vs agitation without delirium) | Neuro-QOL |
| Rosenthal 2017 |  |  |  |  |  |  | HRQoL (delirium without agitation vs neither agitation nor delirious) | Neuro-QOL |
| Rudolph 2008 | Denmark, France, Germany, Great Britain, Greece, the Netherlands, Spain, USA | Pros.coh | 483/463 | 68.6/5.9 | Surgery-non-cardiac | DSM-III |  | Neuropsychological tests battery |
| Rudolph 2010 | USA | Pros.coh | 150/40 | 73.7/6.7 | Cardiac surgery | CAM | IADL | IADL scale |
| Rudolph 2010 |  |  |  |  |  |  | IADL | IADL scale |
| Rudolph 2010 |  |  |  |  |  |  | IADL | IADL scale |
| Rudolph 2010 |  |  |  |  |  |  | IADL | IADL scale |
| Ruggiero 2017 | Italy | Pros.coh | 116/398 | 83.1/7.3 | Orthopedic and orthogeriatric wards | DSM-IV-TR |  | Telephone interview  Regional registries |
| Saczynski 2012 | USA | Pros.coh | 201/24 | 73/6.7 | Surgery-cardiac | CAM |  | MMSE |
| Saczynski 2012 |  |  |  |  |  |  |  | MMSE |
| Saczynski 2012 |  |  |  |  |  |  |  | MMSE |
| Saczynski 2012 |  |  |  |  |  |  |  | MMSE |
| Saczynski 2012 |  |  |  |  |  |  |  | MMSE |
| Saczynski 2012 |  |  |  |  |  |  |  | MMSE |
| Sánchez-Lozano 2023 | Colombia | Nested case–control | 27/54 | 61.28/NA | ICU | CAM-ICU |  | Interview |
| Sánchez-Lozano 2023 |  |  |  |  |  |  |  | MMSE |
| Sánchez-Lozano 2023 |  |  |  |  |  |  | IADL | Philadelphia Geriatric Center-IADL |
| Sánchez-Lozano 2023 |  |  |  |  |  |  |  | SF-36 |
| Sánchez-Lozano 2023 |  |  |  |  |  |  |  | SF-36 |
| Sánchez-Lozano 2023 |  |  |  |  |  |  |  | SF-36 |
| Sánchez-Lozano 2023 |  |  |  |  |  |  |  | SF-36 |
| Sánchez-Lozano 2023 |  |  |  |  |  |  |  | SF-36 |
| Sánchez-Lozano 2023 |  |  |  |  |  |  |  | SF-36 |
| Sánchez-Lozano 2023 |  |  |  |  |  |  |  | SF-36 |
| Sánchez-Lozano 2023 |  |  |  |  |  |  |  | SF-36 |
| Sánchez-Lozano 2023 |  |  |  |  |  |  |  | SF-36 |
| Sánchez-Lozano 2023 |  |  |  |  |  |  |  | SF-36 |
| Sanguanwit 2023 | Thailand | Pros.coh | 82/91 | 77.57/NA | ED | CAM-ICU |  | Medical records  Telephone interview |
| Sanguanwit 2023 |  |  |  |  |  |  |  | Medical records  Telephone interview |
| Sasajima 2012 | Japan | Pros.coh | 261/38 | NA/NA | Surgery | CAM |  | NA |
| Sasajima 2012 |  |  |  |  |  |  |  | NA |
| Sasajima 2012 |  |  |  |  |  |  |  | NA |
| Sato 2017 | Japan | Pros.coh | 83/80 | 80.08/NA | Intensive cardiac care unit | CAM-ICU |  | Medical records  Telephone interview |
| Sauer 2017 | Netherlands | RCT | 127/49 | 66.56/NA | Surgery-cardiac | CAM  Chart review |  | WAIS digit span (total)-Wechsler Adult Intelligence Scale |
| Sauer 2017 |  |  |  |  |  |  |  | WAIS digit span (span)-Wechsler Adult Intelligence Scale |
| Sauer 2017 |  |  |  |  |  |  |  | Trailmaking test B (s) |
| Sauer 2017 |  |  |  |  |  |  |  | RAVL (IR)-Rey auditory verbal learning immediate recall |
| Sauer 2017 |  |  |  |  |  |  |  | RAVL (DR)-Ray auditory verbal learning delayed recall |
| Sauer 2017 |  |  |  |  |  |  |  | Grooved pegboard (s) |
| Sauer 2017 |  |  |  |  |  |  |  | Corsi blocks (total score) |
| Sauer 2017 |  |  |  |  |  |  |  | Trailmaking test A (s) |
| Sauer 2017 |  |  |  |  |  |  |  | Corsi blocks |
| Sauer 2017 |  |  |  |  |  |  |  | Grooved pegboard (s)) |
| Sauer 2017 |  |  |  |  |  |  |  | RAVL (DR)-Ray auditory verbal learning delayed recall |
| Sauer 2017 |  |  |  |  |  |  |  | RAVL (IR)-Rey auditory verbal learning immediate recall |
| Sauer 2017 |  |  |  |  |  |  |  | Trailmaking test A (s) |
| Sauer 2017 |  |  |  |  |  |  |  | Trailmaking test B (s) |
| Sauer 2017 |  |  |  |  |  |  |  | WAIS digit span (total)-Wechsler Adult Intelligence Scale |
| Sauer 2017 |  |  |  |  |  |  |  | WAIS digit span (span)-Wechsler Adult Intelligence Scale |
| Sauer 2017 |  |  |  |  |  |  |  | NA |
| Sauer 2017 |  |  |  |  |  |  |  | NA |
| Sauer 2017 |  |  |  |  |  |  |  | WAIS digit span (total)-Wechsler Adult Intelligence Scale |
| Sauer 2017 |  |  |  |  |  |  |  | WAIS digit span (span)-Wechsler Adult Intelligence Scale |
| Sauer 2017 |  |  |  |  |  |  |  | Trailmaking test B (s) |
| Sauer 2017 |  |  |  |  |  |  |  | RAVL (IR)-Rey auditory verbal learning immediate recall |
| Sauer 2017 |  |  |  |  |  |  |  | RAVL (DR)-Ray auditory verbal learning delayed recall |
| Sauer 2017 |  |  |  |  |  |  |  | Grooved pegboard (s) |
| Sauer 2017 |  |  |  |  |  |  |  | Corsi blocks (total score) |
| Sauer 2017 |  |  |  |  |  |  |  | Trailmaking test A (s) |
| Sauer 2017 |  |  |  |  |  |  |  | Corsi blocks |
| Sauer 2017 |  |  |  |  |  |  |  | Grooved pegboard (s)) |
| Sauer 2017 |  |  |  |  |  |  |  | RAVL (DR)-Ray auditory verbal learning delayed recall |
| Sauer 2017 |  |  |  |  |  |  |  | RAVL (IR)-Rey auditory verbal learning immediate recall |
| Sauer 2017 |  |  |  |  |  |  |  | Trailmaking test A (s) |
| Sauer 2017 |  |  |  |  |  |  |  | Trailmaking test B (s) |
| Sauer 2017 |  |  |  |  |  |  |  | WAIS digit span (total)-Wechsler Adult Intelligence Scale |
| Sauer 2017 |  |  |  |  |  |  |  | WAIS digit span (span)-Wechsler Adult Intelligence Scale |
| Serrano-Duenas 2005 | Ecuador | Pros.coh | 41/22 | NA/NA | Neurology Service | CAM |  | Short test of mental status (SMTS) |
| Serrano-Duenas 2005 |  |  |  |  |  |  |  | Short test of mental status (SMTS) |
| Serrano-Duenas 2005 |  |  |  |  |  |  |  | Short test of mental status (SMTS) |
| Serrano-Duenas 2005 |  |  |  |  |  |  |  | Short test of mental status (SMTS) |
| Serrano-Duenas 2005 |  |  |  |  |  |  |  | Short test of mental status (SMTS) |
| Serrano-Duenas 2005 |  |  |  |  |  |  |  | Short test of mental status (SMTS) |
| Serrano-Duenas 2005 |  |  |  |  |  |  |  | Short test of mental status (SMTS) |
| Serrano-Duenas 2005 |  |  |  |  |  |  |  | Short test of mental status (SMTS) |
| Serrano-Duenas 2005 |  |  |  |  |  |  |  | Short test of mental status (SMTS) |
| Serrano-Duenas 2005 |  |  |  |  |  |  |  | Short test of mental status (SMTS) |
| Serrano-Duenas 2005 |  |  |  |  |  |  |  | NA |
| Sheng 2006 | Australia | Pros.coh | 83/73 | 79.2/6.7 | Medical admission unit -stroke | DSM-IV |  | MMSE |
| Sheng 2006 |  |  |  |  |  |  |  | MMSE |
| Sheng 2006 |  |  |  |  |  |  | ADL | Functional Independence Measure score |
| Sheng 2006 |  |  |  |  |  |  | ADL | Functional Independence Measure score |
| Sheng 2006 |  |  |  |  |  |  | ADL | Functional Independence Measure score |
| Sheng 2006 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Sheng 2006 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Sheng 2006 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Sheng 2006 |  |  |  |  |  |  |  | Face to face interview  Telephone interview |
| Shi 2019 | Canada, USA, France | Pros.coh | 97/90 | 81.32/NA | Surgery-cardiac | DSI  CAM  CAM-ICU |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019 |  |  |  |  |  |  |  | ADL IADL |
| Shi 2019\_2 |  |  |  |  |  |  |  | Face-to-face  Phone interviews |
| Shi 2019\_2 | China | Pros.coh | 31/101 | 80/6 | Orthopedic surgery | CAM |  | ADL |
| Shim 2015 | USA | Pros.coh | 314/317 | NA/NA | Surgery-non-cardiac | CAM | ADL | Self reported ADL |
| Shim 2015 |  |  |  |  |  |  | IADL | Self reported IADL |
| Shintani 2009 | USA | Pros.coh | NA | NA/NA | Medical and coronary intensive care units | CAM-ICU |  | NA |
| Shintani 2009 |  |  |  |  |  |  |  | NA |
| Shintani 2009 |  |  |  |  |  |  |  | NA |
| Singler 2014 | Germany | Pros.coh | 53/80 | 83.4/5.5 | ED | CAM |  | Telephone interview |
| Singler 2014 |  |  |  |  |  |  | Fall | Telephone interview |
| Slor 2013 | Netherlands | Pros.coh | 12/41 | 82.9/NA | Surgery-hip fracture | CAM | Generalized anxiety disorder | Mini-International Neuropsychiatric Interview (M.I.N.I.) |
| Slor 2013 |  |  |  |  |  |  | Major depressive episode | Mini-International Neuropsychiatric Interview (M.I.N.I.) |
| Slor 2013 |  |  |  |  |  |  | major depressive episode with melancholic features | Mini-International Neuropsychiatric Interview (M.I.N.I.) |
| Slor 2013 |  |  |  |  |  |  | HADS-A total score | HADS-A |
| Slor 2013 |  |  |  |  |  |  | GDS total score | Geriatric Depression Scale-15 |
| Slor 2013 |  |  |  |  |  |  | PTSS-10 total score | Post-Traumatic Stress Syndrome Scale-10 (PTSS-10) |
| Sri-on 2016 | Thailand | Pros.coh | 98/134 | 76/6 | ED | CAM-ICU |  | Medical records Telephone interview |
| Suraarunsumrit 2022 | Thailand | Pros.coh | 164/125 | 72/NA | Surgery | CAM-ICU  DSM-5 | ADL | Barthel ADL |
| Suraarunsumrit 2022 |  |  |  |  |  |  | IADL | Lawton–Brody IADL |
| Suraarunsumrit 2022 |  |  |  |  |  |  | Frailty | FRAIL scale |
| Suraarunsumrit 2022 |  |  |  |  |  |  | ADL | Barthel ADL |
| Suraarunsumrit 2022 |  |  |  |  |  |  | IADL | Lawton–Brody IADL |
| Suraarunsumrit 2022 |  |  |  |  |  |  |  | Interview |
| Suraarunsumrit 2022 |  |  |  |  |  |  |  | EQ-5D-5L |
| Suraarunsumrit 2022 |  |  |  |  |  |  |  | Interview |
| Svenningsen 2014 | Denmark | Pros.coh | 204/156 | 61/15 | ICU | CAM-ICU |  | Barthel Index |
| Svenningsen 2014 |  |  |  |  |  |  |  | Barthel Index |
| Svenningsen 2014 |  |  |  |  |  |  | Bodily pain | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | General health perceptions | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Mental health | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Physical function | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Role emotional | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Role physical | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Social function | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Vitality | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Bodily pain | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | General health perceptions | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Mental health | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Physical function | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Role emotional | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Role physical | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Social function | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Vitality | SF-36 |
| Svenningsen 2014 |  |  |  |  |  |  | Memories of feelings | ICU-Memory Tool |
| Svenningsen 2014 |  |  |  |  |  |  | Memories of delusions | ICU-Memory Tool |
| Svenningsen 2014 |  |  |  |  |  |  | Factual memories | ICU-Memory Tool |
| Svenningsen 2014 |  |  |  |  |  |  | Memories of feelings | ICU-Memory Tool |
| Svenningsen 2014 |  |  |  |  |  |  | Memories of delusions | ICU-Memory Tool |
| Svenningsen 2014 |  |  |  |  |  |  | Factual memories | ICU-Memory Tool |
| Svenningsen 2015 | Denmark | Pros.coh | 166/133 | 59.89/28.31 | ICU | CAM-ICU | Anxiety | State-Trait Anxiety Inventory (STAI) |
| Svenningsen 2015 |  |  |  |  |  |  | Depression | Major Depression Inventory (MDI) |
| Svenningsen 2015 |  |  |  |  |  |  | PTSD | Harvard Trauma Questionnaire (HTQ) |
| Svenningsen 2015 |  |  |  |  |  |  | Anxiety | State-Trait Anxiety Inventory (STAI) |
| Svenningsen 2015 |  |  |  |  |  |  | Depression | Major Depression Inventory (MDI) |
| Svenningsen 2015 |  |  |  |  |  |  | PTSD | Harvard Trauma Questionnaire (HTQ) |
| Svenningsen 2015 |  |  |  |  |  |  | Anxiety | State-Trait Anxiety Inventory (STAI) |
| Svenningsen 2015 |  |  |  |  |  |  | Depression | Major Depression Inventory (MDI) |
| Svenningsen 2015 |  |  |  |  |  |  | PTSD | Harvard Trauma Questionnaire (HTQ) |
| Svenningsen 2015 |  |  |  |  |  |  | Anxiety | State-Trait Anxiety Inventory (STAI) |
| Svenningsen 2015 |  |  |  |  |  |  | Depression | Major Depression Inventory (MDI) |
| Svenningsen 2015 |  |  |  |  |  |  | PTSD | Harvard Trauma Questionnaire (HTQ) |
| Tahir 2018 | UK | Pros.coh | 117/264 | NA/NA | Surgery-femoral neck | DSM-IV |  | Medical record |
| Tahir 2018 |  |  |  |  |  |  |  | Medical record |
| Tan AH 2015 | New Zealand | Retro.coh | NA | NA/NA | Medical, orthopaedic and rehabilitation ward | CAM |  | Patient management system of the ditrict |
| Tavares 2021 | Portugal | Pros.coh | 47/54 | 82.47/6.57 | Internal medicine services | CAM |  | Katz Index |
| To-adithep 2023 | Thailand | Pros.coh | 333/297 | 64.1/16.6 | Surgical intensive care unit (SICU) | CAM-ICU | ADL | B-ADL |
| To-adithep 2023 |  |  |  |  |  |  | IADL | I-ADL |
| To-adithep 2023 |  |  |  |  |  |  |  | Telephone interview  Civil registration office |
| Traissac 2011 | France | Pros.coh | 154/322 | 86.5/6 | Geriatric unit | CAM |  | Telephone interview |
| Trevisan 2023 | Italy | Pros.coh | 842/482 | 66.7/14.6 | Hospitalized for COVID-19 | DSM-5 |  | Regional register |
| Tripathy 2014 | India | Pros.coh | 80/29 | 74.7/8.4 | Medical surgical ICU | ICDSC |  | Telephone interview |
| Tripathy 2014 |  |  |  |  |  |  |  | Telephone interview |
| Tsai 2012 | Taiwan | Pros.coh | 320/294 | 74.7/6.4 | Psychiatric consultation | DSM-IV-TR |  | Registration data |
| Tsai 2012 |  |  |  |  |  |  |  | Registration data |
| Tsai 2012 |  |  |  |  |  |  |  | Registration data |
| Uthamalingam 2011 | UK | Retro.coh | 422/461 | 79/8 | Medical admission unit -cardiac | CAM |  | Medical records |
| Uthamalingam 2011 |  |  |  |  |  |  |  | Medical records |
| Uthamalingam 2011 |  |  |  |  |  |  |  | Medical records  Social Security Death Index  local obituary records  Physician interview |
| van Rijsbergen 2011 | Netherlands | Nested case-control | 29/21 | 75.13/NA | Stroke unit | CAM |  | NA |
| van Rijsbergen 2011 |  |  |  |  |  |  |  | Clinical Dementia Rating Scale |
| van Rijsbergen 2011 |  |  |  |  |  |  |  | Rotterdam-CAMCOG |
| van Rijsbergen 2011 |  |  |  |  |  |  | Abstract reasoning | Neuropsychological test |
| van Rijsbergen 2011 |  |  |  |  |  |  | Verbal memory | Neuropsychological test |
| van Rijsbergen 2011 |  |  |  |  |  |  | Visual memory | Neuropsychological test |
| van Rijsbergen 2011 |  |  |  |  |  |  | Attention | Neuropsychological test |
| van Rijsbergen 2011 |  |  |  |  |  |  | Visual perception | Neuropsychological test |
| van Rijsbergen 2011 |  |  |  |  |  |  | Visual construction | Neuropsychological test |
| van Rijsbergen 2011 |  |  |  |  |  |  | Language | Neuropsychological test |
| van Rijsbergen 2011 |  |  |  |  |  |  | Executive function | Neuropsychological test |
| VandenBoogaard 2012 | Netherlands | Pros.coh | 609/306 | 69.55/20.7 | ICU | CAM-ICU  DSM-IV |  | CFQ |
| VandenBoogaard 2012 |  |  |  |  |  |  | Fatigue | Individual strength (CIS)- fatigue |
| VandenBoogaard 2012 |  |  |  |  |  |  | Role-emotional | SF-36 version 1 |
| VandenBoogaard 2012 |  |  |  |  |  |  | Social functioning | SF-36 version 1 |
| VandenBoogaard 2012 |  |  |  |  |  |  | Bodily pain | SF-36 version 1 |
| VandenBoogaard 2012 |  |  |  |  |  |  | General health | SF-36 version 1 |
| VandenBoogaard 2012 |  |  |  |  |  |  | Mental | SF-36 version 1 |
| VandenBoogaard 2012 |  |  |  |  |  |  | Mental health | SF-36 version 1 |
| VandenBoogaard 2012 |  |  |  |  |  |  | Physical component score | SF-36 version 1 |
| VandenBoogaard 2012 |  |  |  |  |  |  | Physical functioning | SF-36 version 1 |
| VandenBoogaard 2012 |  |  |  |  |  |  | Role-physical | SF-36 version 1 |
| VandenBoogaard 2012 |  |  |  |  |  |  | Vitality | SF-36 version 1 |
| VanderHeijden 2023 | Netherlands | Pros.coh | 1651/749 | 63.3/12.5 | ICU | CAM-ICU | Fatigue | SF-36 version 1 |
| VanderHeijden 2023 |  |  |  |  |  |  |  | EQ-5D-5L |
| VanderHeijden 2023 |  |  |  |  |  |  |  | EQ-5D-5L |
| VanderHeijden 2023 |  |  |  |  |  |  | Quality of life [1] | Clinical Frailty Scale (CFS) |
| VanderHeijden 2023 |  |  |  |  |  |  | Anxiety | HADS |
| VanderHeijden 2023 |  |  |  |  |  |  | Anxiety, depression, or PTSD symptoms | HADS |
| VanderHeijden 2023 |  |  |  |  |  |  | Anxiety, depression, or PTSD symptoms | HADS |
| VanderHeijden 2023 |  |  |  |  |  |  | Depression | HADS |
| VanderHeijden 2023 |  |  |  |  |  |  | PTSD | IES-R |
| VanderHeijden 2023 |  |  |  |  |  |  |  | CFQ |
| VanderHeijden 2023 |  |  |  |  |  |  |  | CFQ |
| VanDerWulp 2019 | Netherlands | Pros.coh | 338/365 | 79.64/6.68 | Surgery-cardiac | DSM-IV  CAM  DOS |  | Central Bureau for Statistics |
| VanDerWulp 2019 |  |  |  |  |  |  |  | Central Bureau for Statistics |
| VanDerWulp 2019 |  |  |  |  |  |  |  | Central Bureau for Statistics |
| VanDerWulp 2019 |  |  |  |  |  |  |  | Central Bureau for Statistics |
| VanDerWulp 2019 |  |  |  |  |  |  |  | Central Bureau for Statistics |
| VanDerWulp 2019 |  |  |  |  |  |  |  | Central Bureau for Statistics |
| VanRompaey 2009 | Belgium | Pros.coh | 66/49 | 62/NA | ICU | NEECHAM Confusion Scale  CAM-ICU | Health perception | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  | Pain | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  | Physical function | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  | Role function | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  | Social function | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  | Mental health | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  | Health perception | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  | Mental health | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  | Pain | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  | Physical function | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  | Role function | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  | Social function | SF-20 |
| VanRompaey 2009 |  |  |  |  |  |  |  | Face to face interview |
| VanRompaey 2009 |  |  |  |  |  |  |  | Face to face interview |
| Vasunilashorn 2016 | USA | Pros.coh | 601/884 | 78.75/NA | Surgical and medical | CAM  CAM-S |  | Medical record  National Death Index  Social Security and Medicare Part A databases  Death certificates |
| Vasunilashorn 2018 | USA | Pros.coh | 240/326 | 76.7/5.2 | Surgery-non-cardiac | CAM  CAM-S |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | GCP |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | IQCODE (Proxy) |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | IQCODE (Proxy) |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | IQCODE (Proxy) |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | IQCODE (Proxy) |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | IQCODE (Proxy) |
| Vasunilashorn 2018 |  |  |  |  |  |  |  | IQCODE (Proxy) |
| Vasunilashorn 2022 | USA | Pros.coh | 148/204 | 79.94/8.11 | Medical or surgical services | CAM  Medical record | DEL-S short form 0-1 vs other scores | Medical records |
| Vasunilashorn 2022 |  |  |  |  |  |  | DEL-S long form 0-1 vs other scores | Medical records |
| Vasunilashorn 2022 |  |  |  |  |  |  | DEL-S short form 0-1 vs other scores | Medical records |
| Vasunilashorn 2022 |  |  |  |  |  |  | DEL-S long form 0-1 vs other scores | Medical records |
| Vasunilashorn 2022 |  |  |  |  |  |  | DEL-S short form 0-1 vs other score | Interview |
| Vasunilashorn 2022 |  |  |  |  |  |  | DEL-S long form 0-1 vs other score | Interview |
| Vasunilashorn 2022 |  |  |  |  |  |  | DEL-S short form 0-1 vs other score | Interview |
| Vasunilashorn 2022 |  |  |  |  |  |  | DEL-S long form 0-1 vs other score | Interview |
| Veiga 2012 | Portugal | Pros.coh | 413/267 | 64.1/NA | Post-anesthesia Care Unit | ICDSC |  | Record |
| Verloo 2016 | Switzerland | Pros.coh | 40/74 | 83.2/7.2 | Hospital | CAM | Depression | Edmonton Frailty Score (EFS) |
| Verloo 2016 |  |  |  |  |  |  |  | MMSE |
| Verloo 2016 |  |  |  |  |  |  |  | MMSE |
| Verloo 2016 |  |  |  |  |  |  | IADL | Lawton index |
| Verloo 2016 |  |  |  |  |  |  | IADL | Lawton index |
| Verloo 2016 |  |  |  |  |  |  | Frailty | Edmonton Frailty Score (EFS) |
| Vida 2006 | Canada | Pros.coh | 56/71 | 78.67/NA | ED | CAM | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | IADL | OARS |
| Vida 2006 |  |  |  |  |  |  | IADL | OARS |
| Vida 2006 |  |  |  |  |  |  | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | IADL | OARS |
| Vida 2006 |  |  |  |  |  |  | IADL | OARS |
| Vida 2006 |  |  |  |  |  |  | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | ADL | OARS |
| Vida 2006 |  |  |  |  |  |  | IADL | OARS |
| Vida 2006 |  |  |  |  |  |  | IADL | OARS |
| Visser 2015 | Netherlands | Pros.coh | 356/107 | 71.64/8.18 | Surgery-cardiac | DOS  DSM-IV |  | NA |
| Visser 2015 |  |  |  |  |  |  |  | NA |
| Vives-Borrás 2019 | Spain | Pros.coh | 322/205 | 84.45/3.71 | Medical admission unit -cardiac | CAM  DSM-IV |  | Pfeifer |
| Vives-Borrás 2019 |  |  |  |  |  |  |  | Pfeifer |
| Vives-Borrás 2019 |  |  |  |  |  |  | ADL | Barthel index |
| Vives-Borrás 2019 |  |  |  |  |  |  | IADL | Lawton-Brody index |
| Vives-Borrás 2019 |  |  |  |  |  |  | ADL | Barthel index |
| Vives-Borrás 2019 |  |  |  |  |  |  |  | Telephone interview |
| Wang 2021 | China | Pros.coh | 127/0 | 70.6/0.4 | Surgery-laryngectomy | CAM | ADL | Katz index |
| Wang 2021 |  |  |  |  |  |  |  | Interview Electronic medical records |
| Weng 2019 | Taiwan | Pros.coh | 62/87 | 81.8/7.8 | Geriatric ward | CAM | ADL | Barthel Index |
| Weng 2019 |  |  |  |  |  |  | ADL | Barthel Index |
| Weng 2019 |  |  |  |  |  |  | ADL | Barthel Index |
| Whittamore 2014 | UK | Pros.coh | 85/164 | 84/7.45 | Acute medical care | DRS-R-98  DSM-IV |  | Interview |
| Whittamore 2014 |  |  |  |  |  |  | Behavioural and psychological symptoms (NPI) | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Agitaion and aggression | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Anxiety | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Apathy | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Appetite and eating problems | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Delusion | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Depression | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Dinhibiltion | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Elation | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Hallucination | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Irritablity | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Psychomotor activity | NPI |
| Whittamore 2014 |  |  |  |  |  |  | Sleep problem | NPI |
| Whittamore 2014 |  |  |  |  |  |  |  | Hospital administrative systems  GP interview  Interviews (participants or informants |
| Whittamore 2014 |  |  |  |  |  |  | ADL | Barthel Index |
| Whittamore 2014 |  |  |  |  |  |  |  | MMSE |
| Witlox 2013 | Netherlands | Pros.coh | 12/36 | 83.16/NA | Hip fracture surgery | CAM |  | Fifteen Words Test recognition |
| Witlox 2013 |  |  |  |  |  |  |  | RT total error |
| Witlox 2013 |  |  |  |  |  |  |  | RT SD (millisecond) |
| Witlox 2013 |  |  |  |  |  |  |  | RT mean (millisecond) |
| Witlox 2013 |  |  |  |  |  |  |  | Fifteen Words Test delayed recall |
| Witlox 2013 |  |  |  |  |  |  |  | MMSE |
| Witlox 2013 |  |  |  |  |  |  |  | Fifteen Words Test total recall |
| Witlox 2013 |  |  |  |  |  |  |  | Expanded digit span backward |
| Witlox 2013 |  |  |  |  |  |  |  | EMCT total |
| Witlox 2013 |  |  |  |  |  |  |  | EMCT total time (seconds) |
| Witlox 2013 |  |  |  |  |  |  |  | EMCT total error |
| Witlox 2013 |  |  |  |  |  |  |  | DART |
| Witlox 2013 |  |  |  |  |  |  |  | COWAT total |
| Witlox 2013 |  |  |  |  |  |  |  | Clock drawing |
| Witlox 2013 |  |  |  |  |  |  |  | Expanded digit span forwardd |
| Witlox 2013 |  |  |  |  |  |  |  | Expanded degit span forward |
| Witlox 2013 |  |  |  |  |  |  |  | Expanded digit span backward |
| Witlox 2013 |  |  |  |  |  |  |  | IQCODE-N |
| Witlox 2013 |  |  |  |  |  |  |  | MMSE |
| Witlox 2013 |  |  |  |  |  |  | ADL | Barthel index |
| Witlox 2013 |  |  |  |  |  |  | IADL | Lawton-Brody index |
| Witlox 2013 |  |  |  |  |  |  | Depression | GDS |
| Wolters 2014 | Netherlands | Pros.coh | 677424 | 59.8/16.5 | ICU | CAM-ICU |  | European Quality of Life – Six dimensions (EQ-6D) |
| Wolters 2014 |  |  |  |  |  |  |  | European Quality of Life – Six dimensions (EQ-6D) |
| Wolters 2014 |  |  |  |  |  |  |  | European Quality of Life – Five Dimensions (EQ-5D)TM |
| Wolters 2014 |  |  |  |  |  |  |  | Hospital information system Municipal database Postal interview Telephone interview |
| Wolters 2017 | Netherlands | Pros.coh | 222/141 | NA/NA | Medical-surgical ICU | CAM-ICU |  | CFQ |
| Wolters 2017 |  |  |  |  |  |  |  | CFQ |
| Zakriya 2004 | USA | Pros.coh | 26/66 | 78.29/NA | Surgery-hip fracture | CAM | Best grip strength | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Best grip strength | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Ambulation | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Banking and finances | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Bathing | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Bed-to-wheelchair transfer | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Dressing | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Feeding | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Food shopping | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Housework | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Laundry | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Preparing meals | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Public transportation | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Toilet | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Ambulation | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Banking and finances | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Bathing | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Bed-to-wheelchair transfer | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Dressing | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Feeding | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Food shopping | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Housework | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Laundry | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Preparing meals | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Public transportation | Interview |
| Zakriya 2004 |  |  |  |  |  |  | Toilet | Interview |
| Zakriya 2004 |  |  |  |  |  |  |  | Interview |
| Zakriya 2004 |  |  |  |  |  |  |  | Interview |
| Zakriya 2004 |  |  |  |  |  |  |  | Interview |
| Zakriya 2004 |  |  |  |  |  |  |  | Interview |
| Zakriya 2004 |  |  |  |  |  |  |  | Interview |
| Zakriya 2004 |  |  |  |  |  |  |  | Interview |
| Zakriya 2004 |  |  |  |  |  |  |  | Interview |
| Zakriya 2004 |  |  |  |  |  |  |  | Interview |
| Ziman 2020 | USA | Pros.coh | 663/662 | 72.7/6 | Surgery-non-cardiac | CAM |  | National Death Index records |
| Zipprich 2020 | Germany | Pros.coh | 288/303 | 74.1/8.4 | In-patient care, excluding psychiatric wards | CAM  CAM-ICU | Disabled (require special care) | Karnofsky Performance Score (KPS) |
| Zipprich 2020 |  |  |  |  |  |  |  | EuroQol-5D |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
| Zipprich 2020 |  |  |  |  |  |  |  | NA |
|  |  |  |  |  |  |  |  |  |

Footnote: Age: mean(sd), may be less than 60 when converted from median (IQR) to mean(sd). ED: Emergency department, CAM: Confusion Assessment Scale, DSM: Diagnostic and Statistical manual

Table S4. Summary of included studies on clinical outcomes of delirium after hospital discharge

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Clinical outcomes | Data type | Total number of studies | Follow-up sample | | Total sample size | Follow-up duration | | |
| delirium | No-delirium | Average duration (month) | Min  (month) | Max  (month) |
| Cognition | Categorical | 25 | 2485 | 7801 | 10286 | 12.82 | 0.067 | 48 |
| Continuous | 47 | 3208 | 6048 | 9256 | 13.08 | 0.067 | 72 |
| Change | 10 | 562 | 1602 | 2164 | 11.72 | 1 | 72 |
| **Total** | | **64** | **4994** | **12158** | **17152** |  |  |  |
| Functional outcome | Categorical | 48 | 3853 | 29053 | 32906 | 7.71 | 0.067 | 60 |
| Continuous | 40 | 2609 | 6973 | 9582 | 7.75 | 0.067 | 60 |
| Change | 6 | 226 | 595 | 821 | 6.12 | 1 | 18 |
| **Total** | | **80** | **6171** | **34615** | **40786** |  |  |  |
| Quality of life | Categorical | 4 | 674 | 2496 | 3170 | 5.4 | 3 | 12 |
| Continuous | 22 | 2248 | 5422 | 7670 | 7.02 | 1 | 36 |
| **Total** | | **24** | **2300** | **5890** | **8190** |  |  |  |
| Mental health | Categorical | 14 | 3196 | 5701 | 8897 | 8.65 | 0.067 | 36 |
| Continuous | 11 | 488 | 899 | 1387 | 10.80 | 1 | 36 |
| **Total** | | **19** | **3333** | **6219** | **9552** |  |  |  |
| Dementia | Categorical | 23 | 3033 | 7627 | 10660 | 34.05 | 3 | 120 |
| Readmission | Categorical | 31 | 2617 | 8470 | 11087 | 4.21 | 1 | 18 |
| Institutionalization | Categorical | 29 | 2990 | 24104 | 27094 | 13.12 | 1 | 60 |
| Mortality | Categorical | 166 | 19251 | 67351 | 86602 | 14.27 | 0.16 | 168 |
| **Total (follow-up)** |  | **254** | **29986** | **107840** | **137826** |  | | |
| **Total (baseline)** | **254** | **36661** | **161159** | **197820** |

N.B. the total numbers is different because a single paper could report more than one outcome

Table S4. Follow-up time analysis for clinical outcomes after delirium: Categorical data results

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Clinical outcome** | **Sub-group**  **(number of studies)** | **Timepoint** | **OR** | **95% CI** | **p-value** | **I²** (%) | **τ²** |
| Cognition | Cognitive impairment (n=20) | Collapsed | 2.168 | 1.685-2.789 | < 0.001 | 76.2 | 0.203 |
| Cognitive impairment (n=11) | ≤6 months | 1.652 | 1.322-2.063 | < 0.001 | 29.5 | 0.037 |
| Cognitive impairment (n=8) | 6-12 months | 2.287 | 1.481-3.532 | 0.001 | 77.1 | 0.280 |
| Cognitive impairment (n=6) | >12 months | 4.685 | 2.391-9.177 | < 0.001 | 87.8 | 0.562 |
| Cognitive decline (n=5) | Collapsed | 1.656 | 1.062-2.585 | 0.026 | 28.8 | 0.077 |
| Cognitive decline (n=4) | ≤6 months | 1.527 | 0.907-2.570 | 0.111 | 40.6 | 0.114 |
| Cognitive decline (n=2) | >12 months | 2.220 | 1.287-3.828 | 0.004 | 0.0 | 0.000 |
| Functional outcome | Functional impairment (n=27) | Collapsed | 2.186 | 1.684-2.837 | < 0.001 | 90.8 | 0.363 |
| Functional impairment (n=16) | ≤6 months | 1.571 | 1.193-2.070 | 0.001 | 86.6 | 0.222 |
| Functional impairment (n=7) | 6-12 months | 2.355 | 1.644-3.373 | < 0.001 | 78.5 | 0.142 |
| Functional impairment (n=7) | >12 months | 4.097 | 1.622 to 10.352 | 0.003 | 88.9 | 1.330 |
| Functional decline (n=22) | Collapsed | 1.984 | 1.686-2.335 | < 0.001 | 28.7 | 0.040 |
| Functional decline (n=16) | ≤6 months | 1.812 | 1.444-2.273 | < 0.001 | 44.7 | 0.086 |
| Functional decline (n=6) | 6-12 months | 2.611 | 1.975-3.451 | < 0.001 | 0.0 | 0.000 |
| Functional decline (n=2) | >12 months | 1.945 | 0.967-3.912 | 0.062 | 0.0 | 0.000 |
| Frailty(n=4) | Collapsed | 2.547 | 0.862-7.528 | 0.091 | 93.4 | 1.078 |
| Falls (n=2) | Collapsed | 0.692 | 0.343-1.397 | 0.305 | 0.0 | 0.000 |
| ADL dysfunction (n=19) | Collapsed | 2.210 | 1.786-2.734 | < 0.001 | 32.6 | 0.068 |
| IADL dysfunction (n=11) | Collapsed | 2.002 | 1.378-2.908 | < 0.001 | 70.3 | 0.257 |
| Quality of life | Poor quality of life (n=4) | Collapsed | 2.131 | 1.693 to 2.682 | < 0.001 | 0.0 | 0.00 |
| Poor quality of life (n=3) | ≤6 months | 1.804 | 1.237 to 2.631 | 0.002 | 0.0 | 0.00 |
| Mental health | Mental health problems (n=14) | Collapsed | 1.687 | 1.308-2.175 | < 0.001 | 79.7 | 0.161 |
| Sleep related problems (n=3) | Collapsed | 2.724 | 1.105 to 6.176 | 0.030 | 69.7 | 0.442 |
| Depression/ depressive disorders (n=10) | Collapsed | 1.656 | 1.246-2.200 | < 0.001 | 65.5 | 0.107 |
| Anxiety/anxiety disorders (n=6) | Collapsed | 1.600 | 1.211-2.114 | 0.001 | 41.8 | 0.041 |
| Post-traumatic stress/post-traumatic stress disorder (PTSD) (n=7) | Collapsed | 1.406 | 1.085-1.823 | 0.010 | 30.4 | 0.036 |
| Mental health problems (n=11) | ≤6 months | 1.572 | 1.202-2.057 | 0.001 | 54.8 | 0.100 |
| Mental health problems (n=6) | 6-12 months | 1.663 | 1.189-2.327 | 0.003 | 72.4 | 0.104 |
| Mental health problems (n=2) | >12 months | 4.574 | 2.851-7.340 | 0.001 | 0.0 | 0.00 |
| Dementia | Dementia (n=23) | Collapsed | 5.373 | 3.307–8.732 | < 0.001 | 88.2 | 1.112 |
| Dementia (n=6) | ≤6 months | 5.603 | 2.716-11.557 | < 0.001 | 20.6 | 0.169 |
| Dementia (n=9) | 6-12 months | 4.089 | 1.926-8.681 | < 0.001 | 84.1 | 0.926 |
| Dementia (n=12) | >12 months | 5.189 | 2.437-11.050 | < 0.001 | 89.8 | 1.463 |
| Institutionalization | Institutionalization (n=29) | Collapsed | 2.786 | 2.180-3.561 | < 0.001 | 68.5 | 0.255 |
| Institutionalization (n=14) | ≤6 months | 2.810 | 1.801-4.386 | < 0.001 | 77.1 | 0.457 |
| Institutionalization (n=11) | 6-12 months | 3.497 | 2.181-5.606 | < 0.001 | 74.8 | 0.464 |
| Institutionalization (n=5) | >12 months | 2.570 | 1.612-4.097 | < 0.001 | 50.7 | 0.135 |
| Readmission/revisit | Readmission/revisit (n=31) | Collapsed | 1.699 | 1.395-2.070 | < 0.001 | 66.4 | 0.163 |
| Readmission/revisit (n=29) | ≤6 months | 1.734 | 1.387-2.168 | < 0.001 | 67.3 | 0.203 |
| Readmission/revisit (n=5) | >6 months | 1.573 | 1.268-1.951 | < 0.001 | 0.0 | 0.000 |
| Mortality | Mortality (n=166) | Collapsed | 2.532 | 2.324-2.758 | < 0.001 | 82.7 | 0.192 |
| Mortality (n=102) | ≤6 months | 2.929 | 2.603-3.295 | < 0.001 | 73.6 | 0.187 |
| Mortality (n=75) | 6-12 months | 2.346 | 2.086-2.639 | < 0.001 | 73.7 | 0.158 |
| Mortality (n=43) | >12 months | 1.984 | 1.651-2.384 | < 0.001 | 85.0 | 0.254 |

Table S5. Follow-up time analysis for clinical outcomes after delirium. Continuous data results

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Clinical outcome** | **Sub-group**  **(number of studies)** | **Timepoint** | **Hedges's g** | **95% CI** | **p-value** | **I²** (%) | **τ²** |
| Cognition | Cognitive impairment (n=43) | Collapsed | -0.563 | -0.674 to -0.452 | <0.001 | 93.6 | 0.114 |
| Cognitive impairment (n=33) | ≤6 months | -0.525 | -0.639 to -0.410 | <0.001 | 87.4 | 0.083 |
| Cognitive impairment (n=17) | 6-12 months | -0.601 | -0.790 to -0.411 | <0.001 | 88.2 | 0.127 |
| Cognitive impairment (n=11) | >12 months | -0.723 | -1.017 to -0.430 | <0.001 | 96.8 | 0.222 |
| Cognitive decline (n=4) | Collapsed | -0.693 | -1.531 to 0.146 | 0.105 | 98.0 | 0.714 |
| Cognitive decline (n=3) | ≤6 months | -0.660 | -1.842 to 0.522 | 0.274 | 98.5 | 1.071 |
| Cognitive changes (n=10) | Collapsed | -0.160 | -0.237 to -0.083 | <0.001 | 58.4 | 0.007 |
| Cognitive changes (n=7) | ≤6 months | -0.178 | -0.292 to -0.064 | 0.002 | 62.5 | 0.013 |
| Cognitive changes (n=5) | 6-12 months | -0.052 | -0.254 to 0.150 | 0.613 | 71.0 | 0.035 |
| Cognitive changes (n=3) | >12 months | -0.158 | -0.320 to 0.004 | 0.004 | 82.0 | 0.017 |
| Functional outcome | Functional impairment (n=38) | Collapsed | -0.644 | -0.853 to -0.435 | <0.001 | 97.7 | 0.407 |
| Functional impairment (n=32) | ≤6 months | -0.651 | -0.904 to -0.398 | <0.001 | 97.5 | 0.509 |
| Functional impairment (n=13) | 6-12 months | -0.581 | -0.892 to -0.270 | 0.001 | 95.6 | 0.297 |
| Functional impairment (n=6) | >12 months | -0.506 | -0.812 to -0.200 | 0.001 | 92.2 | 0.125 |
| functional decline (n=2) | Collapsed | -0.320 | -0.788 to -0.149 | 0.181 | 69.3 | 0.084 |
| ADL dysfunction (n=23) | Collapsed | -0.510 | -0.885 to -0.134 | 0.008 | 97.9 | 0.805 |
| IADL dysfunction (n=18) | Collapsed | -0.346 | -0.707 to 0.016 | 0.06 | 97.6 | 0.578 |
| Functional change (n=6) | Collapsed | -0.204 | -0.431 to 0.023 | 0.078 | 74.4 | 0.055 |
| Functional change (n=4) | ≤6 months | -0.177 | -0.437 to 0.083 | 0.182 | 76.3 | 0.053 |
| Functional change (n=2) | >6 months | -0.111 | -0.304 to 0.081 | 0.258 | 0.0 | 0.00 |
| Quality of life | Poor quality of life (n=22) | Collapsed | -0.443 | -0.563 to -0.323 | <0.001 | 93.6 | 0.068 |
| Poor quality of life (n=14) | ≤6 months | -0.331 | -0.465 to -0.196 | <0.001 | 88.8 | 0.051 |
| Poor quality of life (n=8) | 6-12 months | -0.419 | -0.613 to -0.225 | <0.001 | 89.5 | 0.062 |
| Poor quality of life (n=2) | >12 months | -0.448 | -0.905 to 0.008 | 0.054 | 87.5 | 0.096 |
| Poor quality of life: physical (n=5) | Collapsed | -0.242 | -0.367 to -0.117 | <0.001 | 48.5 | 0.010 |
| Poor quality of life: mental (n=5) | Collapsed | -0.191 | -0.266 to -0.115 | <0.001 | 0.0 | 0.00 |
| Poor quality of life: role physical (n=5) | Collapsed | -0.351 | -0.629 to -0.073 | 0.013 | 79.6 | 0.068 |
| Poor quality of life: physical functioning (n=8) | Collapsed | -0.619 | -0.934 to -0.304 | <0.001 | 87.7 | 0.159 |
| Poor quality of life: vitality (n=6) | Collapsed | -0.231 | -0.424 to -0.037 | 0.020 | 65.4 | 0.034 |
| Poor quality of life: social functioning (n=9) | Collapsed | -0.588 | -0.888 to -0.289 | <0.001 | 87.6 | 0.163 |
| Poor quality of life: general health (n=7) | Collapsed | -0.332 | -0.619 to -0.045 | 0.023 | 84.0 | 0.110 |
| Poor quality of life: role emotional (n=6) | Collapsed | -0.129 | -0.275 to 0.017 | 0.084 | 39.4 | 0.012 |
| Poor quality of life: bodily pain (n=5) | Collapsed | -0.048 | -0.182 to 0.087 | 0.488 | 33.6 | 0.008 |
| Poor quality of life: mental health (n=6) | Collapsed | -0.178 | -0.428 to 0.072 | 0.162 | 70.1 | 0.062 |
| Mental health | Mental health problems (n=11) | Collapsed | -0.328 | -0.488 to -0.168 | <0.001 | 76.1 | 0.050 |
| Depression/depressive disorders (n=9) | Collapsed | -0.354 | -0.576 to -0.133 | 0.002 | 70.7 | 0.072 |
| Anxiety/ anxiety disorders (n=5) | Collapsed | -0.270 | -0.520 to -0.021 | 0.034 | 61.9 | 0.047 |
| Post-traumatic stress/post-traumatic stress disorder (PTSD) (n=4) | Collapsed | -0.135 | -0.289 to -0.018 | 0.084 | 6.4 | 0.002 |
| Other mental/behavioural symptoms (n=3) | Collapsed | -0.317 | -0.519 to -0.115 | 0.002 | 0.0 | 0.00 |
| Mental health problems (n=10) | ≤6 months | -0.313 | 0.493 to -0.133 | 0.001 | 71.8 | 0.052 |
| Mental health problems (n=5) | 6-12 months | -0.411 | -0.650 to -0.173 | 0.001 | 24.1 | 0.018 |
| Mental health problems (n=2) | >12 months | -0.460 | -0.726 to -0.194 | 0.001 | 0.0 | 0.000 |

Table S6. Covariates adjusted and unadjusted data sensitivity analysis. Categorical data results

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Clinical outcome** | **Sub-group**  **(number of studies)** | **Timepoint** | **Model adjustment** | **OR** | **95% CI** | **p-value** | **I²** (%) | **τ²** |
| Cognition | Cognitive impairment (n=9) | Collapsed | Adjusted | 2.471 | 1.609 - 3.794 | <0.001 | 79.9 | 0.321 |
| Cognitive impairment (n=4) | ≤6 months | Adjusted | 1.511 | 1.076 - 2.122 | 0.017 | 17.0 | 0.021 |
| Cognitive impairment (n=2) | 6-12 months | Adjusted | 1.865 | 1.138-3.057 | 0.013 | 64.2 | 0.082 |
| Cognitive impairment (n=3) | >12 months | Adjusted | 4.907 | 1.965-12.254 | 0.001 | 76.4 | 0.469 |
| Cognitive impairment (n=11) | Collapsed | Unadjusted | 1.958 | 1.410-2.720 | <0.001 | 73.2 | 0.168 |
| Cognitive impairment (n=7) | ≤6 months | Unadjusted | 1.771 | 1.276-2.460 | 0.001 | 42.2 | 0.069 |
| Cognitive impairment (n=6) | 6-12 months | Unadjusted | 2.488 | 1.305-4.745 | 0.006 | 81.3 | 0.501 |
| Cognitive impairment (n=3) | >12 months | Unadjusted | 4.606 | 1.644-12.907 | 0.004 | 91.3 | 0.723 |
| Cognitive decline (5) | Collapsed | Unadjusted | 1.656 | 1.062-2.585 | 0.026 | 28.8 | 0.077 |
| Cognitive decline (n=4) | ≤6 months | Unadjusted | 1.527 | 0.907-2.570 | 0.111 | 40.6 | 0.114 |
| Cognitive decline (n=2) | >6 months | Unadjusted | 2.220 | 1.287-3.828 | 0.004 | 0.00 | 0.00 |
| Functional outcome | Functional impairment (n=13) | Collapsed | Adjusted | 2.017 | 1.657-2.456 | <0.001 | 49.7 | 0.046 |
| Functional impairment (n=8) | ≤6 months | Adjusted | 1.757 | 1.470-2.099 | <0.001 | 26.6 | 0.015 |
| Functional impairment (n=5) | 6-12 months | Adjusted | 2.176 | 1.387-3.413 | 0.001 | 54.6 | 0.122 |
| Functional impairment (n=3) | >12 months | Adjusted | 2.893 | 1.692-4.945 | <0.001 | 0.0 | 0.000 |
| Functional decline (n=6) | Collapsed | Adjusted | 2.312 | 1.706-3.133 | <0.001 | 0.0 | 0.000 |
| Functional decline (n=4) | ≤6 months | Adjusted | 2.204 | 1.526-3.183 | <0.001 | 0.0 | 0.000 |
| Functional impairment (n=15) | Collapsed | Unadjusted | 2.186 | 1.397-3.422 | 0.001 | 94.5 | 0.668 |
| Functional impairment (n=8) | ≤6 months | Unadjusted | 1.394 | 0.862-2.255 | 0.175 | 91.4 | 0.400 |
| Functional impairment (n=2) | 6-12 months | Unadjusted | 2.637 | 1.174-5.923 | 0.019 | 94.8 | 0.323 |
| Functional impairment (n=5) | >12 months | Unadjusted | 4.277 | 1.210-15.118 | 0.024 | 91.2 | 1.831 |
| Functional decline (n=17) | Collapsed | Unadjusted | 1.866 | 1.506-2.312 | <0.001 | 47.0 | 0.084 |
| Functional decline (n=12) | ≤6 months | Unadjusted | 1.710 | 1.285-2.275 | <0.001 | 55.9 | 0.125 |
| Functional decline (n=5) | 6-12 months | Unadjusted | 2.651 | 1.974-3.561 | <0.001 | 0.0 | 0.000 |
| Functional decline (n=2) | >12 months | Unadjusted | 1.945 | 0.967-3.912 | 0.062 | 0.0 | 0.000 |
| Quality of life | Poor quality of life (n=4) | Collapsed | Unadjusted | 2.131 | 1.693-2.682 | <0.001 | 0.0 | 0.000 |
| Poor quality of life (n=3) | ≤6 months | Unadjusted | 1.804 | 1.237-2.631 | 0.002 | 0.0 | 0.000 |
| Mental health | Mental health problems (n=8) | Collapsed | Adjusted | 1.775 | 1.283-2.458 | 0.001 | 81.9 | 0.159 |
| Mental health problems (n=5) | ≤6 months | Adjusted | 1.628 | 1.259-2.106 | <0.001 | 0.0 | 0.000 |
| Mental health problems (n=5) | >6 months | Adjusted | 2.004 | 1.224-3.283 | 0.006 | 89.3 | 0.259 |
| Mental health problems (n=6) | Collapsed | Unadjusted | 1.539 | 0.962-2.462 | 0.072 | 78.4 | 0.244 |
| Mental health problems (n=6) | ≤6 months | Unadjusted | 1.483 | 0.899-2.447 | 0.123 | 74.9 | 0.259 |
| Mental health problems (n=2) | >6 months | Unadjusted | 2.575 | 1.507-4.400 | 0.001 | 10.9 | 0.018 |
| Dementia | Dementia (n=14) | Collapsed | Adjusted | 5.595 | 3.551-8.815 | <0.001 | 56.8 | 0.383 |
| Dementia (n=3) | ≤6 months | Adjusted | 5.675 | 2.677-12.028 | <0.001 | 0.0 | 0.000 |
| Dementia (n=4) | 6-12 months | Adjusted | 3.959 | 1.461-10.728 | 0.007 | 71.1 | 0.686 |
| Dementia (n=7) | >12 months | Adjusted | 6.717 | 4.206-10.725 | <0.001 | 0.0 | 0.000 |
| Dementia (n=10) | Collapsed | Unadjusted | 4.903 | 2.066-11.634 | <0.001 | 94.0 | 1.654 |
| Dementia (n=3) | ≤6 months | Unadjusted | 5.373 | 0.810-35.655 | 0.082 | 61.2 | 1.685 |
| Dementia (n=5) | 6-12 months | Unadjusted | 4.090 | 1.428-11.716 | 0.009 | 82.8 | 0.998 |
| Dementia (n=5) | >12 months | Unadjusted | 3.572 | 1.047-12.185 | 0.042 | 94.7 | 1.741 |
| Institutionalization | Institutionalization (n=11) | Collapsed | Adjusted | 2.199 | 1.726-2.802 | <0.001 | 33.9 | 0.048 |
| Institutionalization (n=6) | ≤6 months | Adjusted | 2.332 | 1.473-3.693 | <0.001 | 62.9 | 0.177 |
| Institutionalization (n=6) | >12 months | Adjusted | 2.066 | 1.521-2.808 | <0.001 | 0.0 | 0.000 |
| Institutionalization (n=18) | Collapsed | Unadjusted | 3.132 | 2.139-4.588 | <0.001 | 71.8 | 0.440 |
| Institutionalization (n=9) | ≤6 months | Unadjusted | 2.903 | 1.427-5.906 | 0.003 | 78.0 | 0.845 |
| Institutionalization (n=7) | 6-12 months | Unadjusted | 4.818 | 2.588-8.970 | <0.001 | 74.4 | 0.511 |
| Institutionalization (n=5) | >12 months | Unadjusted | 2.578 | 1.560-4.261 | <0.001 | 50.2 | 0.153 |
| Readmission/revisit | Readmission/revisit (n=8) | Collapsed | Adjusted | 1.881 | 1.258-2.812 | 0.002 | 74.4 | 0.217 |
| Readmission/revisit (n=6) | ≤6 months | Adjusted | 1.992 | 1.220-3.254 | 0.006 | 74.6 | 0.278 |
| Readmission/revisit (n=2) | 6-12 months | Adjusted | 1.593 | 1.107-2.293 | 0.012 | 0.0 | 0.000 |
| Readmission/revisit (n=23) | Collapsed | Unadjusted | 1.626 | 1.309-2.020 | <0.001 | 57.7 | 0.125 |
| Readmission/revisit (n=22) | ≤6 months | Unadjusted | 1.649 | 1.303-2.087 | <0.001 | 57.9 | 0.148 |
| Readmission/revisit (n=3) | >12 months | Unadjusted | 1.562 | 1.195-2.040 | 0.001 | 0.0 | 0.000 |
| Mortality | Mortality (n=32) | Collapsed | Adjusted | 2.230 | 1.826-2.725 | <0.001 | 60.9 | 0.174 |
| Mortality (n=21) | ≤6 months | Adjusted | 2.670 | 2.230-3.196 | <0.001 | 18.1 | 0.031 |
| Mortality (n=9) | 6-12 months | Adjusted | 1.964 | 1.549-2.491 | <0.001 | 0.0 | 0.000 |
| Mortality (n=6) | >12 months | Adjusted | 1.270 | 0.733-1.203 | 0.394 | 73.3 | 0.289 |
| Mortality (n=139) | Collapsed | Unadjusted | 2.606 | 2.374-2.861 | <0.001 | 84.4 | 0.196 |
| Mortality (n=83) | ≤6 months | Unadjusted | 2.999 | 2.620-3.434 | <0.001 | 77.2 | 0.206 |
| Mortality (n=68) | 6-12 months | Unadjusted | 2.419 | 2.133-2.743 | <0.001 | 76.1 | 0.170 |
|  | Mortality (n=38) | >12 months | Unadjusted | 2.116 | 1.747-2.562 | <0.001 | 85.3 | 0.247 |

Cognitive decline: No adjusted data

The total number of articles in specific categories may differ from the overall total because a single article can be included in multiple follow-up time points. Additionally, an article may be categorized as both adjusted and unadjusted depending on the adjustment status at specific follow-up points (e.g., in McCusker’s study, the 6-month data were unadjusted, while the 1-year data were adjusted). As a result, the total number of articles in the adjusted and unadjusted analyses may differ from the total number in the main analysis. For example, in the cognitive continuous data category, the total number of articles is 47, but when classified by model adjustment, it becomes 48 because McCusker’s study is counted twice—once as adjusted and once as unadjusted. (this is just for you)

Table S7. Covariates adjusted and unadjusted data sensitivity analysis. Continuous data results

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Clinical outcome** | **Sub-group**  **(number of studies)** | **Timepoint** | **Model adjustment** | **Hedges's g** | **95% CI** | **p-value** | **I²** (%) | **τ²** |
| Cognition | Cognitive impairment (n=16) | Collapsed | Adjusted | -0.413 | -0.569 to -0.256 | <0.001 | 94.6 | 0.084 |
| Cognitive impairment (n=14) | ≤6 months | Adjusted | -0.398 | -0.587 to -0.208 | <0.001 | 91.8 | 0.104 |
| Cognitive impairment (n=8) | 6-12 months | Adjusted | -0.462 | -0.728 to -0.196 | 0.001 | 91.8 | 0.128 |
| Cognitive impairment (n=5) | >12 months | Adjusted | -0.448 | -0.749 to -0.147 | 0.004 | 96.4 | 0.105 |
| Cognitive decline (n=2) | Collapsed | Adjusted | 0.089 | -0.037 to -0.214 | 0.167 | 0.0 | 0.000 |
| Cognitive decline (n=2) | ≤6 months | Adjusted | 0.101 | -0.029 to -0.231 | 0.128 | 0.0 | 0.000 |
| Cognitive impairment (n=28) | Collapsed | Unadjusted | -0.648 | -0.816 to -0.481 | <0.001 | 92.6 | 0.178 |
| Cognitive impairment (n=19) | ≤6 months | Unadjusted | -0.619 | -0.758 to -0.480 | <0.001 | 79.1 | 0.064 |
| Cognitive impairment (n=9) | 6-12 months | Unadjusted | -0.747 | -1.021 to -0.473 | <0.001 | 79.8 | 0.130 |
| Cognitive impairment (n=6) | >12 months | Unadjusted | -0.957 | -1.702 to -0.212 | 0.012 | 97.2 | 0.830 |
| Functional outcome | Functional impairment (n=11) | Collapsed | Adjusted | -0.588 | -0.891 to -0.285 | <0.001 | 97.5 | 0.241 |
| Functional impairment (n=9) | ≤6 months | Adjusted | -0.641 | -1.100 to -0.182 | 0.006 | 97.8 | 0.477 |
| Functional impairment (n=6) | 6-12 months | Adjusted | -0.247 | -0.441 to -0.052 | 0.013 | 75.2 | 0.039 |
| Functional impairment (n=3) | >12 months | Adjusted | -0.214 | -0.299 to -0.128 | <0.001 | 0.0 | 0.000 |
| Functional impairment (n=29) | Collapsed | Unadjusted | -0.625 | -0.891 to -0.358 | <0.001 | 97.4 | 0.511 |
| Functional impairment (n=25) | ≤6 months | Unadjusted | -0.610 | -0.908 to -0.312 | <0.001 | 97.3 | 0.551 |
| Functional impairment (n=8) | 6-12 months | Unadjusted | -0.739 | -1.154 to -0.323 | <0.001 | 95.1 | 0.333 |
| Functional impairment (n=3) | >12 months | Unadjusted | -0.904 | -1.721 to -0.087 | 0.030 | 93.4 | 0.476 |
| Quality of life | Poor quality of life (n=7) | Collapsed | Adjusted | -0.315 | -0.464 to -0.166 | <0.001 | 85.1 | 0.031 |
| Poor quality of life (n=4) | ≤6 months | Adjusted | -0.422 | -0.823 to -0.021 | 0.039 | 92.2 | 0.150 |
| Poor quality of life (n=4) | >6 months | Adjusted | -0.233 | -0.284 to -0.182 | <0.001 | 0.0 | 0.000 |
| Poor quality of life (n=15) | Collapsed | Unadjusted | -0.509 | -0.681 to -0.338 | <0.001 | 95.0 | 0.097 |
| Poor quality of life (n=10) | ≤6 months | Unadjusted | -0.306 | -0.454 to -0.158 | <0.001 | 88.3 | 0.043 |
| Poor quality of life (n=5) | >6 months | Unadjusted | -0.604 | -0.854 to -0.353 | <0.001 | 88.9 | 0.064 |
| Mental health | Mental health problems (n=2) | Collapsed | Adjusted | -0.281 | -0.747 to 0.184 | 0.236 | 71.0 | 0.082 |
| Mental health problems (n=2) | ≤6 months | Adjusted | -0.310 | -0.681 to -0.061 | 0.101 | 10.0 | 0.009 |
| Mental health problems (n=2) | >12 months | Adjusted | -0.321 | -0.821 to -0.179 | 0.208 | 57.4 | 0.078 |
| Mental health problems (n=9) | Collapsed | Unadjusted | -0.336 | -0.514 to -0.157 | <0.001 | 78.0 | 0.052 |
| Mental health problems (n=8) | ≤6 months | Unadjusted | -0.321 | -0.523 to -0.119 | 0.002 | 76.6 | 0.057 |
| Mental health problems (n=4) | >12 months | Unadjusted | -0.451 | -0.649 to -0.254 | <0.001 | 0.0 | 0.000 |

**Footnote**: Data not presented when less than 2 studies available

Table S8. Sample size sensitivity analysis. Categorical data results

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| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Clinical outcome** | **Sub-group**  **(number of studies)** | **Sample size** | **Timepoint** | **OR** | **95% CI** | **p-value** | **I²** (%) | **τ²** |
| Cognition | Cognitive impairment (n=20) | Follow-up only | Collapsed | 2.168 | 1.685-2.789 | < 0.001 | 76.2 | 0.203 |
| Cognitive impairment (n=11) | Follow-up only | ≤6 months | 1.652 | 1.322-2.063 | < 0.001 | 29.5 | 0.037 |
| Cognitive impairment (n=8) | Follow-up only | 6-12 months | 2.287 | 1.481-3.532 | 0.001 | 77.1 | 0.280 |
| Cognitive impairment (n=6) | Follow-up only | >12 months | 4.685 | 2.391-9.177 | < 0.001 | 87.8 | 0.562 |
| Cognitive decline (n=5) | Follow-up only | Collapsed | 1.656 | 1.062-2.585 | 0.026 | 28.8 | 0.077 |
| Cognitive decline (n=4) | Follow-up only | ≤6 months | 1.527 | 0.907-2.570 | 0.111 | 40.6 | 0.114 |
| Cognitive decline (n=2) | Follow-up only | >12 months | 2.220 | 1.287-3.828 | 0.004 | 0.0 | 0.000 |
| Functional outcome | Functional impairment (n=27) | Follow-up only | Collapsed | 2.186 | 1.684-2.837 | <0.001 | 90.8 | 0.363 |
| Functional impairment (n=16) | Follow-up only | ≤6 months | 1.571 | 1.193-2.070 | 0.001 | 86.6 | 0.222 |
| Functional impairment (n=7) | Follow-up only | 6-12 months | 2.355 | 1.644-3.373 | <0.001 | 78.5 | 0.142 |
| Functional impairment (n=7) | Follow-up only | >12 months | 4.097 | 1.622-10.352 | 0.003 | 88.9 | 1.330 |
| Functional decline (n=22) | Follow-up and baseline | Collapsed | 1.984 | 1.686-2.335 | < 0.001 | 28.7 | 0.040 |
| Functional decline (n=16) | Follow-up and baseline | ≤6 months | 1.812 | 1.444-2.273 | < 0.001 | 44.7 | 0.086 |
| Functional decline (n=6) | Follow-up and baseline | 6-12 months | 2.611 | 1.975-3.451 | < 0.001 | 0.0 | 0.000 |
| Functional decline (n=2) | Follow-up and baseline | >12 months | 1.945 | 0.967-3.912 | 0.062 | 0.0 | 0.000 |
| Functional decline (n=21) | Follow-up only | Collapsed | 2.058 | 1.761-2.406 | <0.001 | 20.0 | 0.026 |
| Functional decline (n=15) | Follow-up only | ≤6 months | 1.910 | 1.533-2.379 | <0.001 | 36.8 | 0.062 |
| Functional decline (n=6) | Follow-up only | 6-12 months | 2.611 | 1.975-3.451 | < 0.001 | 0.0 | 0.000 |
| Functional decline (n=2) | Follow-up only | >12 months | 1.945 | 0.967-3.912 | 0.062 | 0.0 | 0.000 |
| Quality of life | Poor quality of life (n=4) | Follow-up only | Collapsed | 2.131 | 1.693 to 2.682 | < 0.001 | 0.0 | 0.00 |
| Poor quality of life (n=3) | Follow-up only | ≤6 months | 1.804 | 1.237 to 2.631 | 0.002 | 0.0 | 0.00 |
| Mental health | Mental health problems (n=14) | Follow-up only | Collapsed | 1.687 | 1.308-2.175 | < 0.001 | 79.7 | 0.161 |
| Mental health problems (n=11) | Follow-up only | ≤6 months | 1.572 | 1.202-2.057 | 0.001 | 54.8 | 0.100 |
| Mental health problems (n=6) | Follow-up only | 6-12 months | 1.663 | 1.189-2.327 | 0.003 | 72.4 | 0.104 |
| Mental health problems (n=2) | Follow-up only | >12 months | 4.574 | 2.851-7.340 | 0.001 | 0.0 | 0.00 |
| Dementia | Dementia (n=23) | Follow-up only | Collapsed | 5.373 | 3.307–8.732 | < 0.001 | 88.2 | 1.112 |
| Dementia (n=6) | Follow-up only | ≤6 months | 5.603 | 2.716-11.557 | < 0.001 | 20.6 | 0.169 |
| Dementia (n=9) | Follow-up only | 6-12 months | 4.089 | 1.926-8.681 | < 0.001 | 84.1 | 0.926 |
| Dementia (n=12) | Follow-up only | >12 months | 5.189 | 2.437-11.050 | < 0.001 | 89.8 | 1.463 |
| Institutionalization | Institutionalization (n=29) | Follow-up only | Collapsed | 2.786 | 2.180-3.561 | < 0.001 | 68.5 | 0.255 |
| Institutionalization (n=14) | Follow-up only | ≤6 months | 2.810 | 1.801-4.386 | < 0.001 | 77.1 | 0.457 |
| Institutionalization (n=11) | Follow-up only | 6-12 months | 3.497 | 2.181-5.606 | < 0.001 | 74.8 | 0.464 |
| Institutionalization (n=5) | Follow-up only | >12 months | 2.570 | 1.612-4.097 | < 0.001 | 50.7 | 0.135 |
| Readmission/revisit | Readmission/revisit (n=31) | Follow-up only | Collapsed | 1.699 | 1.395-2.070 | < 0.001 | 66.4 | 0.163 |
| Readmission/revisit (n=29) | Follow-up only | ≤6 months | 1.734 | 1.387-2.168 | < 0.001 | 67.3 | 0.203 |
| Readmission/revisit (n=5) | Follow-up only | >6 months | 1.573 | 1.268-1.951 | < 0.001 | 0.0 | 0.000 |
| Mortality | Mortality (n=166) | Follow-up only | Collapsed | 2.532 | 2.324-2.758 | < 0.001 | 82.7 | 0.192 |
| Mortality (n=102) | Follow-up only | ≤6 months | 2.929 | 2.603-3.295 | < 0.001 | 73.6 | 0.187 |
| Mortality (n=75) | Follow-up only | 6-12 months | 2.346 | 2.086-2.639 | < 0.001 | 73.7 | 0.158 |
| Mortality (n=43) | Follow-up only | >12 months | 1.984 | 1.651-2.384 | < 0.001 | 85.0 | 0.254 |

**Footnote:** Follow-up sample size used to calculate the effect estimates for categorical cognitive impairment, cognitive decline, and functional impairment outcomes.

Table S9. Sample size sensitivity analysis. Continuous data results

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Clinical outcome** | **Sub-group**  **(number of studies)** | **Sample size** | **Timepoint** | **Hedges's g** | **95% CI** | **p-value** | **I²** (%) | **τ²** |
| Cognition | Cognitive impairment (n=43) | Follow-up and baseline | Collapsed | -0.563 | -0.674 to -0.452 | <0.001 | 93.6 | 0.114 |
| Cognitive impairment (n=33) | Follow-up and baseline | ≤6 months | -0.525 | -0.639 to -0.410 | <0.001 | 87.4 | 0.083 |
| Cognitive impairment (n=17) | Follow-up and baseline | 6-12 months | -0.601 | -0.790 to -0.411 | <0.001 | 88.2 | 0.127 |
| Cognitive impairment (n=11) | Follow-up and baseline | >12 months | -0.723 | -1.017 to -0.430 | <0.001 | 96.8 | 0.222 |
| Cognitive impairment (n=35) | Follow-up only | Collapsed | -0.620 | -0.752 to -0.487 | <0.001 | 94.4 | 0.133 |
| Cognitive impairment (n=26) | Follow-up only | ≤6 months | -0.575 | -0.712 to -0.437 | <0.001 | 88.9 | 0.094 |
| Cognitive impairment (n=14) | Follow-up only | 6-12 months | -0.663 | -0.901 to -0.424 | <0.001 | 89.0 | 0.169 |
| Cognitive impairment (n=10) | Follow-up only | >12 months | -0.783 | -1.103 to -0.464 | <0.001 | 97.0 | 0.238 |
| Cognitive decline (n=4) | Follow-up and baseline | Collapsed | -0.693 | -1.531 to 0.146 | 0.105 | 98.0 | 0.714 |
| Cognitive decline (n=3) | Follow-up and baseline | ≤6 months | -0.660 | -1.842 to 0.522 | 0.274 | 98.5 | 1.071 |
| Cognitive decline (n=2) | Follow-up only | Collapsed | -1.011 | -3.249 to -1.226 | 0.376 | 99.2 | 2.587 |
| Cognitive decline (n=2) | Follow-up only | ≤6 months | -1.011 | -3.249 to -1.226 | 0.376 | 99.2 | 2.587 |
| Cognitive changes (n=10) | Follow-up and baseline | Collapsed | -0.160 | -0.237 to -0.083 | <0.001 | 58.4 | 0.007 |
| Cognitive changes (n=7) | Follow-up and baseline | ≤6 months | -0.178 | -0.292 to -0.064 | 0.002 | 62.5 | 0.013 |
| Cognitive changes (n=5) | Follow-up and baseline | 6-12 months | -0.052 | -0.254 to 0.150 | 0.613 | 71.0 | 0.035 |
| Cognitive changes (n=3) | Follow-up and baseline | >12 months | -0.158 | -0.320 to 0.004 | 0.004 | 82.0 | 0.017 |
| Cognitive changes (n=7) | Follow-up only | Collapsed | -0.186 | -0.265 to -0.107 | <0.001 | 54.0 | 0.005 |
| Cognitive changes (n=5) | Follow-up only | ≤6 months | -0.143 | -0.269 to -0.016 | 0.027 | 68.0 | 0.013 |
| Cognitive changes (n=4) | Follow-up only | 6-12 months | -0.102 | -0.316 to 0.113 | 0.354 | 71.7 | 0.032 |
| Cognitive changes (n=2) | Follow-up only | >12 months | -0.247 | -0.316 to -0.177 | <0.001 | 0.0 | 0.000 |
| Functional outcome | Functional impairment (n=38) | Follow-up and baseline | Collapsed | -0.644 | -0.853 to -0.435 | <0.001 | 97.7 | 0.407 |
| Functional impairment (n=32) | Follow-up and baseline | ≤6 months | -0.651 | -0.904 to -0.398 | <0.001 | 97.5 | 0.509 |
| Functional impairment (n=13) | Follow-up and baseline | 6-12 months | -0.581 | -0.892 to -0.270 | 0.001 | 95.6 | 0.297 |
| Functional impairment (n=6) | Follow-up and baseline | >12 months | -0.506 | -0.812 to -0.200 | 0.001 | 92.2 | 0.125 |
| Functional impairment (n=32) | Follow-up only | Collapsed | -0.615 | -0.859 to -0.371 | <0.001 | 97.9 | 0.469 |
| Functional impairment (n=26) | Follow-up only | ≤6 months | -0.617 | -0.924 to -0.310 | <0.001 | 97.8 | 0.615 |
| Functional impairment (n=12) | Follow-up only | 6-12 months | -0.607 | -0.951 to -0.264 | 0.001 | 95.8 | 0.335 |
| Functional impairment (n=6) | Follow-up only | >12 months | -0.506 | -0.812 to -0.200 | 0.001 | 92.2 | 0.125 |
| Functional decline (n=2) | Follow-up and baseline | Collapsed | -0.320 | -0.788 to -0.149 | 0.181 | 69.3 | 0.084 |
| Functional decline (n=2) | Follow-up only | Collapsed | -0.320 | -0.788 to -0.149 | 0.181 | 69.3 | 0.084 |
| Functional change (n=6) | Follow-up and baseline | Collapsed | -0.204 | -0.431 to 0.023 | 0.078 | 74.4 | 0.055 |
| Functional change (n=4) | Follow-up and baseline | ≤6 months | -0.177 | -0.437 to 0.083 | 0.182 | 76.3 | 0.053 |
| Functional change (n=2) | Follow-up and baseline | >6 months | -0.111 | -0.304 to 0.081 | 0.258 | 0.0 | 0.00 |
| Functional change (n=4) | Follow-up only | Collapsed | -0.232 | -0.571 to 0.108 | 0.181 | 81.7 | 0.089 |
| Functional change (n=3) | Follow-up only | ≤6 months | -0.112 | -0.453 to 0.230 | 0.522 | 81.7 | 0.074 |
| Quality of life | Poor quality of life (n=22) | Follow-up and baseline | Collapsed | -0.443 | -0.563 to -0.323 | <0.001 | 93.6 | 0.068 |
| Poor quality of life (n=14) | Follow-up and baseline | ≤6 months | -0.331 | -0.465 to -0.196 | <0.001 | 88.8 | 0.051 |
| Poor quality of life (n=8) | Follow-up and baseline | 6-12 months | -0.419 | -0.613 to -0.225 | <0.001 | 89.5 | 0.062 |
| Poor quality of life (n=2) | Follow-up and baseline | >12 months | -0.448 | -0.905 to 0.008 | 0.054 | 87.5 | 0.096 |
| Poor quality of life (n=15) | Follow-up only | Collapsed | -0.549 | -0.718 to -0.381 | <0.001 | 95.5 | 0.094 |
| Poor quality of life (n=8) | Follow-up only | ≤6 months | -0.420 | -0.675 to -0.165 | 0.001 | 93.1 | 0.116 |
| Poor quality of life (n=6) | Follow-up only | 6-12 months | -0.493 | -0.729 to -0.257 | <0.001 | 89.6 | 0.067 |
| Poor quality of life (n=2) | Follow-up only | >12 months | -0.448 | -0.905 to 0.008 | 0.054 | 87.5 | 0.096 |
| Mental health | Mental health problems (n=11) | Follow-up only | Collapsed | -0.328 | -0.488 to -0.168 | <0.001 | 76.1 | 0.050 |
| Mental health problems (n=10) | Follow-up only | ≤6 months | -0.313 | 0.493 to -0.133 | 0.001 | 71.8 | 0.052 |
| Mental health problems (n=5) | Follow-up only | 6-12 months | -0.411 | -0.650 to -0.173 | 0.001 | 24.1 | 0.018 |
| Mental health problems (n=2) | Follow-up only | >12 months | -0.460 | -0.726 to -0.194 | 0.001 | 0.0 | 0.000 |

**Footnote:** Baseline sample sizes were used for 10 studies on cognition, 8 studies on functional outcomes, and 7 studies on quality of life outcomes due to the absence of follow-up sample sizes.

Except for one article reporting categorical data, all others reported continuous or change data.

For all other outcomes, follow-up sample sizes were used.

A single study could report multiple outcomes

**Figure S. Forest plots for clinical outcome of delirium analyses**

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| --- | --- | --- | --- |
| **Clinical outcomes** | **Data type** | **Timepoints** | **Forest Plot** |
| **Cognitive impairment** | Cat | Collapsed |  |
| **Cognitive impairment** | Cat | ≤6 months |  |
| **Cognitive impairment** | Cat | 6-12 months |  |
| **Cognitive impairment** | Cat | >12 months |  |
| **Cognitive decline** | Cat | Collapsed |  |
| **Cognitive decline** | Cat | ≤6 months |  |
| **Cognitive decline** | Cat | >12 months |  |
| **Cognitive impairment** | Con | **Collapsed** |  |
| **Cognitive impairment** | Con | ≤6 months |  |
| **Cognitive impairment** | Con | 6-12 months |  |
| **Cognitive impairment** | Con | >12 months |  |
| **Cognitive decline** | Con | **Collapsed** |  |
| **Cognitive decline** | Con | ≤6 months |  |
| **Cognitive changes** | Con | **Collapsed** |  |
| **Cognitive changes** | Con | ≤6 months |  |
| **Cognitive changes** | Con | 6-12 months |  |
| **Cognitive changes** | Con | >12 months |  |
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**Outlier for clinical outcome of delirium analyses**

Extreme outliers are when there is a complete separation of the outcomes effect estimates confidence intervals from the pooled effect estimate confidence intervals. We did not exclude studies based on the outlier analyses.

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| --- | --- | --- | --- |
| Clinical outcomes | Data type | Number of Outliers | forest plot after removed outlier |
| **Cognitive impairment** | **Categorical** | 2 |  |
| **Cognitive decline** | **Categorical** | - | - |
| **Cognitive impairment** |  |  |  |
| **Cognitive decline** |  |  |  |
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**Small study effect investigations**

Figure S. Funnel plots for clinical outcomes of delirium, and results of publication bias/small-study effect investigation when more than 10 studies were available.

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| --- | --- | --- | --- | --- | --- | --- | --- |
| Clinical outcomes | Data type | Funnel plots | Egger’s Test | | Trim and Fill | | |
|  |  |  | Intercept | p value  (1-tailed) | No. imputed  studies | OR/g | 95%CI |
| Cognitive impairment | Categorical |  | 1.00 | 0.12 | - | - | - |
| Cognitive decline | Categorical | Only 5 studies available | - | - | - | - | - |
|  |  |  |  |  |  |  |  |
| Cognitive impairment | Continuous |  | -0.89 | 0.17 | - | - | - |
| Cognitive decline | Continuous | Only 4 studies available | - | - | - | - | - |
| Cognitive changes | Continuous |  | -0.03 | 0.49 | - | - | - |
| Functional impairment | categorical |  | 1.64 | 0.07 | - | - | - |
| Functional decline | categorical |  | -0.58 | 0.24 | - | - | - |
| Functional impairment | Continuous |  | -1.63 | 0.22 | - | - | - |
| Functional decline | Continuous | Only 2 studies available | - | - | - | - | - |
| Functional changes | Continuous | Only 6 studies available | - | - | - | - | - |
| Quality of life | **Categorical** | Only 4 studies available | - | - | - | - | - |
| Quality of life | Continuous |  | -2.03 | 0.07 | - | - | - |
| Mental health | Categorical |  | 1.78 | 0.07 | - | - | - |
| Mental health | Continuous |  | -2.72 | 0.01 | 2 | -0.26 | -0.41 to -0.11 |
| Institutionalisation | Categorical |  | 0.61 | 0.16 | - | - | - |
| Readmission | Categorical |  | -0.38 | 0.27 | - | - | - |
| Dementia | Categorical |  | 3.51 | <0.001 | 6 | 4.26 | 2.82 to 6.42 |
| Mortality | Categorical |  | 0.98 | <0.001 | 21 | 2.29 | 2.10 to 2.50 |