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Systematic Review: Some Essential Elements

Key Stages to be Implemented

- 1) Define the question using PICOS → Population-Intervention-Comparator-Outcome
-Study Designs that are acceptable
- 2) Develop search strings to be used for a coming literature search
- 3) State clearly the inclusion and exclusion criteria
- 4) Literature Search → at least three well-known databases using the search strings
- 5) Select studies (at least 2 researchers independently, with 3rd as a tie breaker)
→ a) based on title and abstract (screening), b) full papers
- 6) Extract data that is relevant to answering the research question
- 7) Assess the risk of bias of each included study based on standardized tools → these may differ depending on the type of study in the original paper
- 8) Combine the study findings and interpret the results

Key Markers of the Review's Quality

- 1) Was the review pre-published → Registered in PROSPERO?
- 2) Did the review have a well-defined research question?
- 3) Did the review have well-defined inclusion and exclusion criteria?
- 4) Did the review have a clearly stated and comprehensive search strategy?
- 5) Were studies selected, data extracted, and risk of bias assessed independently by at least two researchers?
- 6) Were the characteristics of the studies included sufficiently well-defined?
- 7) Were the conclusions based on the review findings?
- 8) Were there minimal deviations from the registered protocol?