

Supplementary File 1: Search Strategies for Systematic Review on Association between High-Sensitivity C-Reactive Protein and Diabetic Nephropathy

Overview of Search Strategy

This supplementary file provides the detailed search strategies and syntax used to identify relevant studies for the systematic review and meta-analysis titled “Association between the High-Sensitivity C-Reactive Protein and Diabetic Nephropathy.” The searches were conducted in PubMed, Scopus, Web of Science, Cochrane Central Register of Controlled Trials, Embase, and Google Scholar, covering each database’s inception to July 22, 2024. No language or publication status restrictions were applied. The search strategies were developed using a combination of Medical Subject Headings (MeSH), Emtree terms (for Embase), and free-text keywords, tailored to each database’s syntax. Boolean operators (AND, OR, NOT) and database-specific filters were used to refine the search process. The search strategies were peer-reviewed by an additional author (AK) using the Peer Review of Electronic Search Strategies (PRESS) Checklist before implementation.

Search Terms

The search combined terms related to inflammatory markers (e.g., high-sensitivity C-reactive protein, erythrocyte sedimentation rate, interleukin-6) and diabetic nephropathy or related renal complications in diabetes. The core search terms included:

- Inflammatory Markers: “C-Reactive Protein” OR “CRP” OR “High-Sensitivity CRP” OR “hs-CRP” OR “hypersensitive C-reactive protein” OR “Erythrocyte sedimentation rate” OR “ESR” OR “IL-6” OR “IL6” OR “Interleukin 6”
- Diabetic Nephropathy: “Diabetic Nephropathy” OR “Diabetic Kidney Disease” OR “Diabetes Mellitus, Renal Complications” OR “Renal Disease in Diabetes” OR “Kidney Disease in Diabetes” OR “Diabetes-Related Nephropathy”

Database-Specific Search Syntax

PubMed

(“C-Reactive Protein”[MeSH Terms] OR “C-Reactive Protein”[Title/Abstract] OR

"CRP"[Title/Abstract] OR "High-Sensitivity CRP"[Title/Abstract] OR
 "hs-CRP"[Title/Abstract] OR "hypersensitive C-reactive protein"[Title/Abstract] OR
 "Erythrocyte Sedimentation Rate"[MeSH Terms] OR
 "Erythrocyte Sedimentation Rate"[Title/Abstract] OR "ESR"[Title/Abstract] OR
 "Interleukin-6"[MeSH Terms] OR "IL-6"[Title/Abstract] OR "IL6"[Title/Abstract] OR
 "Interleukin 6"[Title/Abstract])

AND

("Diabetic Nephropathies"[MeSH Terms] OR "Diabetic Nephropathy"[Title/Abstract] OR
 "Diabetic Kidney Disease"[Title/Abstract] OR
 "Diabetes Mellitus, Renal Complications"[Title/Abstract] OR
 "Renal Disease in Diabetes"[Title/Abstract] OR
 "Kidney Disease in Diabetes"[Title/Abstract] OR
 "Diabetes-Related Nephropathy"[Title/Abstract])

Scopus

(TITLE-ABS-KEY("C-Reactive Protein" OR "CRP" OR "High-Sensitivity CRP" OR
 "hs-CRP" OR "hypersensitive C-reactive protein" OR
 "Erythrocyte Sedimentation Rate" OR "ESR" OR "IL-6" OR "IL6" OR
 "Interleukin 6"))

AND

(TITLE-ABS-KEY("Diabetic Nephropathy" OR "Diabetic Kidney Disease" OR
 "Diabetes Mellitus, Renal Complications" OR "Renal Disease in Diabetes" OR
 "Kidney Disease in Diabetes" OR "Diabetes-Related Nephropathy"))

Web of Science

TS=("C-Reactive Protein" OR "CRP" OR "High-Sensitivity CRP" OR "hs-CRP" OR
 "hypersensitive C-reactive protein" OR "Erythrocyte Sedimentation Rate" OR
 "ESR" OR "IL-6" OR "IL6" OR "Interleukin 6")

AND

TS=("Diabetic Nephropathy" OR "Diabetic Kidney Disease" OR
 "Diabetes Mellitus, Renal Complications" OR "Renal Disease in Diabetes" OR
 "Kidney Disease in Diabetes" OR "Diabetes-Related Nephropathy")

Cochrane Central Register of Controlled Trials

("C-Reactive Protein" OR "CRP" OR "High-Sensitivity CRP" OR "hs-CRP" OR
 "hypersensitive C-reactive protein" OR "Erythrocyte Sedimentation Rate" OR
 "ESR" OR "IL-6" OR "IL6" OR "Interleukin 6"):ti,ab,kw

AND

("Diabetic Nephropathy" OR "Diabetic Kidney Disease" OR
 "Diabetes Mellitus, Renal Complications" OR "Renal Disease in Diabetes" OR
 "Kidney Disease in Diabetes" OR "Diabetes-Related Nephropathy"):ti,ab,kw

Embase

('c reactive protein'/exp OR 'C-Reactive Protein':ti,ab OR 'CRP':ti,ab OR

'High-Sensitivity CRP':ti,ab OR 'hs-CRP':ti,ab OR
'hypersensitive C-reactive protein':ti,ab OR
'erythrocyte sedimentation rate'/exp OR 'Erythrocyte Sedimentation Rate':ti,ab OR
'ESR':ti,ab OR 'interleukin 6'/exp OR 'IL-6':ti,ab OR 'IL6':ti,ab OR
'Interleukin 6':ti,ab)
AND
('diabetic nephropathy'/exp OR 'Diabetic Nephropathy':ti,ab OR
'Diabetic Kidney Disease':ti,ab OR 'Diabetes Mellitus, Renal Complications':ti,ab OR
'Renal Disease in Diabetes':ti,ab OR 'Kidney Disease in Diabetes':ti,ab OR
'Diabetes-Related Nephropathy':ti,ab)

Google Scholar

allintitle: ("C-Reactive Protein" OR "CRP" OR "High-Sensitivity CRP" OR "hs-CRP" OR
"hypersensitive C-reactive protein" OR "Erythrocyte Sedimentation Rate" OR "ESR" OR
"IL-6" OR "IL6" OR "Interleukin 6")
("Diabetic Nephropathy" OR "Diabetic Kidney Disease" OR
"Diabetes Mellitus, Renal Complications" OR "Renal Disease in Diabetes" OR
"Kidney Disease in Diabetes" OR "Diabetes-Related Nephropathy")

Notes

- The searches were conducted without language or publication status restrictions to ensure comprehensiveness.
- For grey literature, Google Scholar searches were supplemented with manual searches of theses, conference proceedings, and posters.
- The search syntax was adapted to the specific requirements and indexing systems of each database to maximize retrieval of relevant studies.