

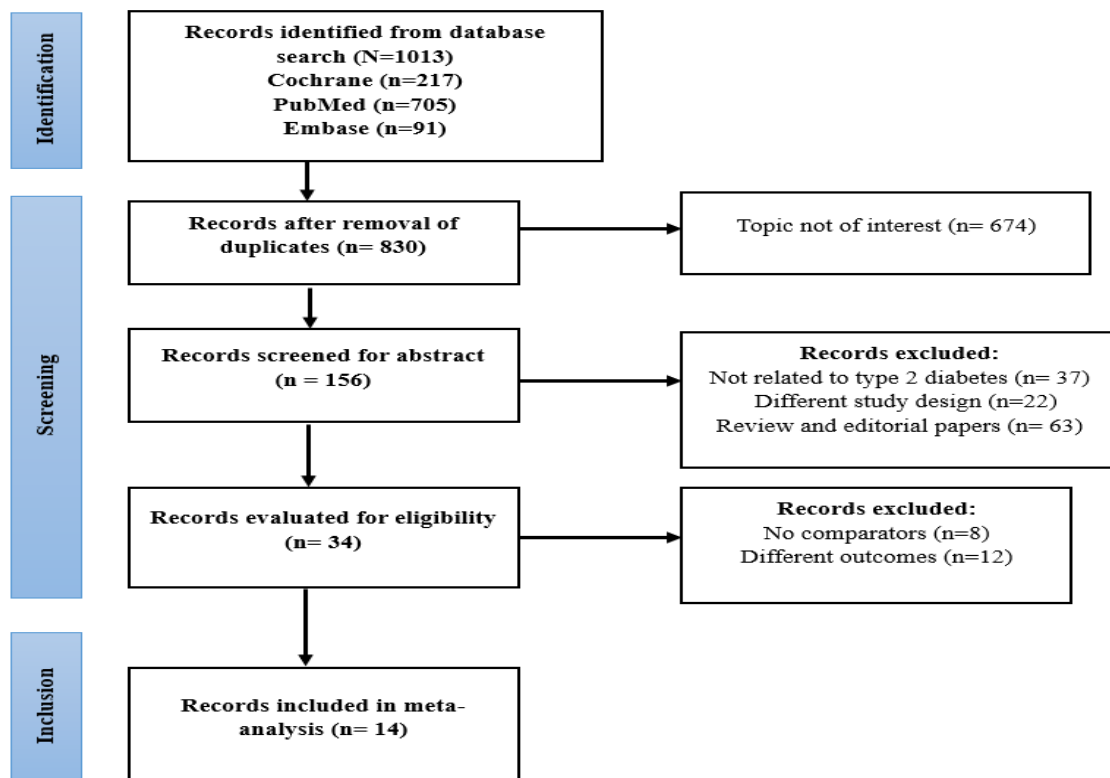


Fig S1: PRISMA flow chart of study selection

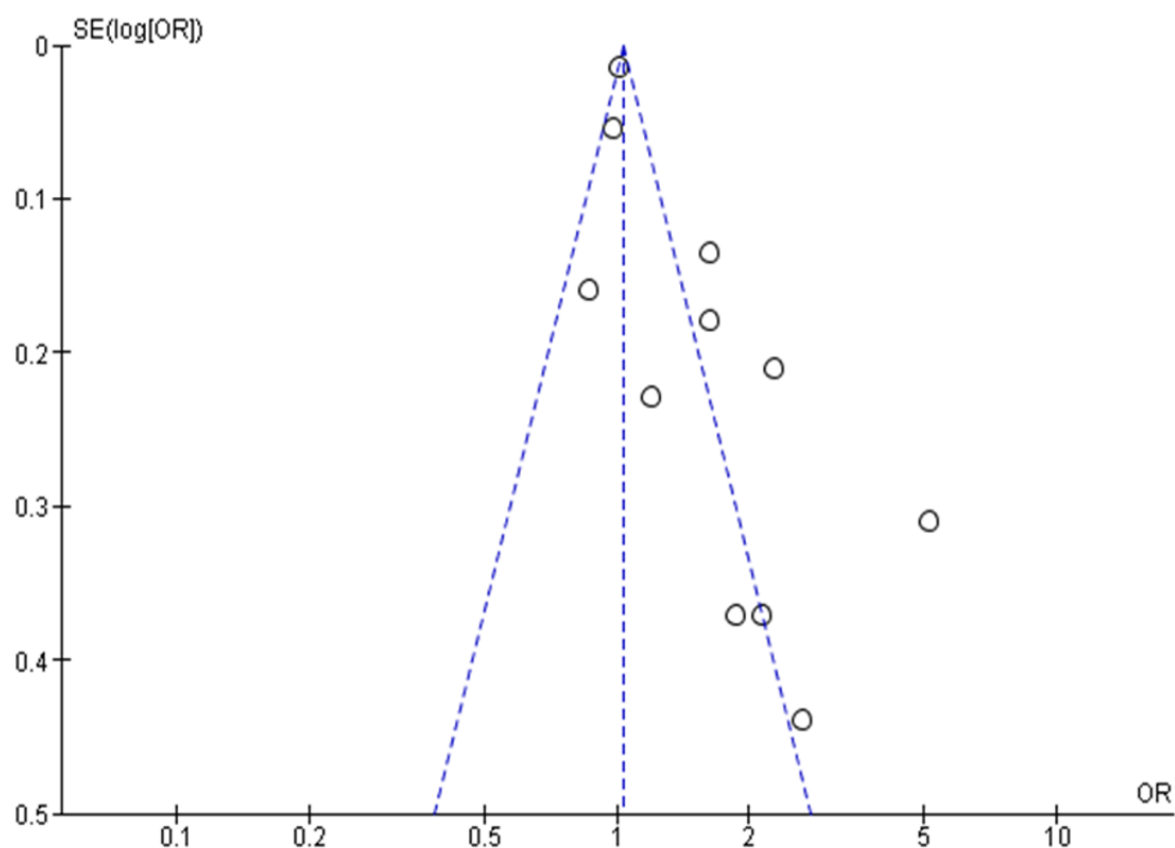


Fig S2: Funnel plot for eligible studies showing degree of publication bias

Supplementary Table S1: JBI Critical Appraisal Checklist for observational Studies

JBI Critical Appraisal Checklist for Cohort Studies												
Authors	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10	Q11	Total
Ichikawa K 2021	Y	Y	Y	Y	Y	Y	Y	U	N	N	Y	8/11
Targher G 2005	Y	Y	Y	Y	Y	Y	N	U	N	N	Y	7/11
Yanbo G 2022	Y	Y	Y	U	U	Y	Y	N	N	N	Y	6/11
Riley DR 2024	Y	Y	Y	N	N	Y	N	N	N	N	U	4/11
Kim KS 2024	Y	Y	Y	Y	U	Y	Y	Y	Y	U	U	8/11
JBI Critical Appraisal Checklist for Cross-sectional Studies												
Authors	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8				Total

Agarwal AK 2011	Y	Y	Y	U	U	U	Y	Y				5/8
Chan WK 2014	Y	Y	Y	U	Y	Y	Y	Y				7/8
Idilman IS 2014	Y	Y	Y	Y	Y	N	Y	Y				7/8
Lu H 2009	Y	Y	Y	U	N	N	Y	Y				5/8
Takeuch Y 2012	Y	Y	Y	Y	N	N	U	Y				5/8
Targher G 2006	Y	Y	Y	Y	N	N	Y	Y				6/8
Targher G 2007	Y	Y	Y	Y	Y	N	U	Y				6/8
Firouzabadi MD 2024	Y	Y	Y	Y	U	N	U	Y				5/8
Lalwani NS 2024	Y	Y	Y	Y	U	U	U	Y				5/8

Supplementary table S2: study search strategy in database

Database	Filters applied	Keywords	Studies screened
Cochrane library	Year: 2005-2025	(Cardiovascular disease) OR (Major adverse cardiovascular events) OR (myocardial infarction) OR (ischaemic heart disease) OR (heart failure) AND (Metabolic associated fatty liver disease) OR (Metabolic-dysfunction associated steatotic liver disease) OR (non-alcoholic fatty liver disease) OR (Metabolic associated steatohepatitis) OR (nonalcoholic steatohepatitis) AND (Type 2 diabetes mellitus) OR (T2DM) OR (diabetes type 2) OR (DM)	217
Pubmed	Year: 2005/1/1 - 2025/03/25 Language: English	(Cardiovascular disease) OR (Major adverse cardiovascular events) OR (myocardial infarction) OR (ischaemic heart disease) OR (heart failure) OR (stroke) AND (Metabolic associated fatty	705

		liver disease) OR OR (Metabolic-dysfunction associated steatotic liver disease) OR (non-alcoholic fatty liver disease) OR (Metabolic associated steatohepatitis) OR (nonalcoholic steatohepatitis) AND (Type 2 diabetes mellitus) OR (T2DM)) OR (diabetes type 2) OR (DM2)	
Embase	Year: 2005-2025 Language: English	(Cardiovascular disease) OR (Major adverse cardiovascular events) OR (myocardial infarction) OR (ischemic heart disease) OR OR (heart failure) OR (stroke) AND (Metabolic associated fatty liver disease) OR OR (Metabolic-dysfunction associated steatotic liver disease) OR (non-alcoholic fatty liver disease) OR (Metabolic associated steatohepatitis) OR (non-alcoholic steatohepatitis) AND (Type 2 diabetes mellitus) OR (T2DM)) OR (diabetes type 2) OR (DM2)	91