Supplementary Figures and tables

A
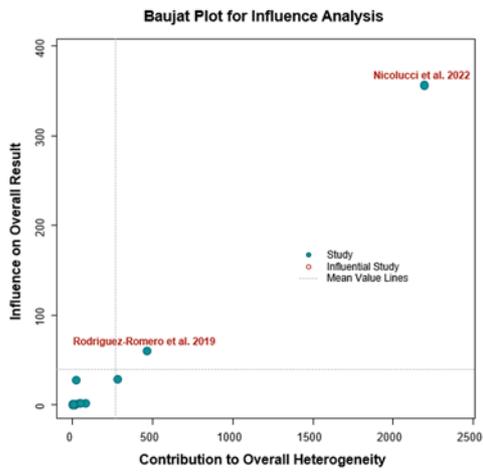

B

Supplementary Figure 1 Risk of bias assessment. A: Risk of bias graph; B: Risk of bias summary.
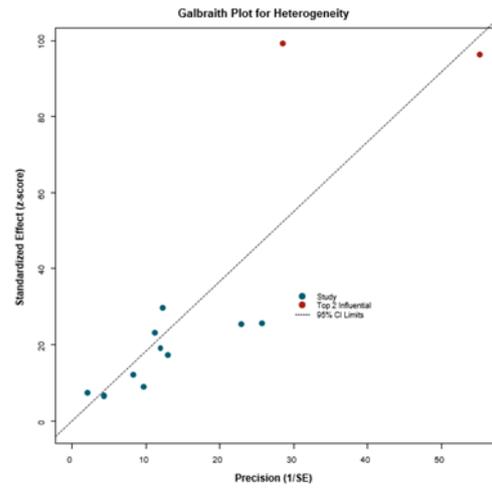
Supplementary Figure 2 Analysis of heterogeneity sources. A: A Baujat plot of the meta-analysis; B: A Galbraith plot of the meta-analysis.

Supplementary Figure 3 Results of leave-one-out method in sensitivity analysis.

Supplementary Figure 4 Funnel plot for pooled area under the receiver operating characteristic curve (logit transformed).

Supplementary Table 1 Literature search strategy

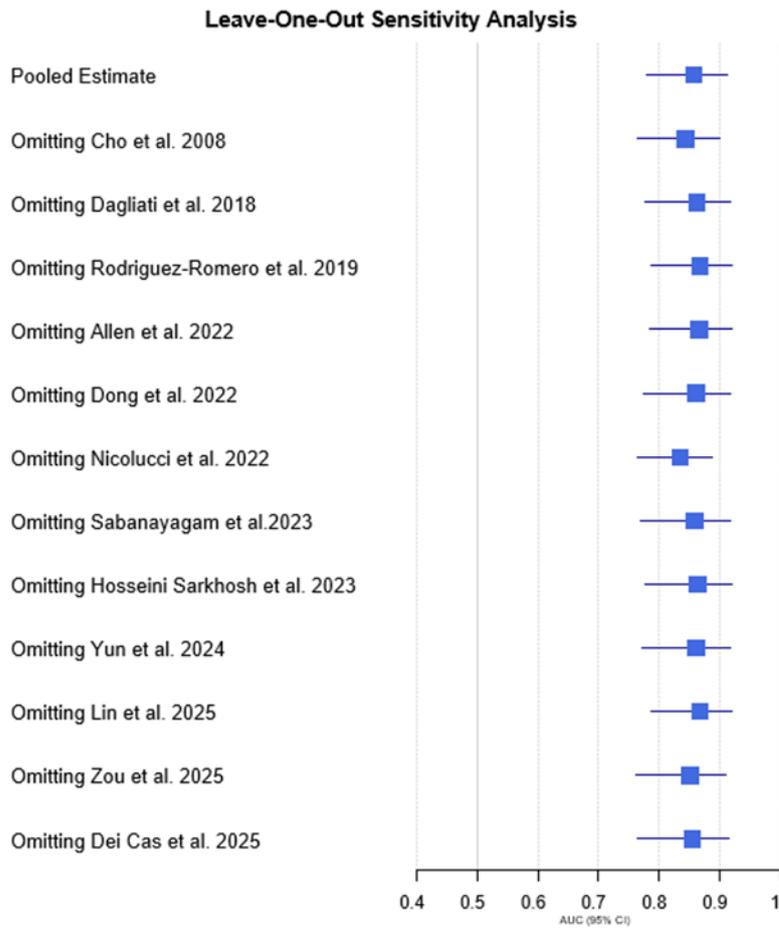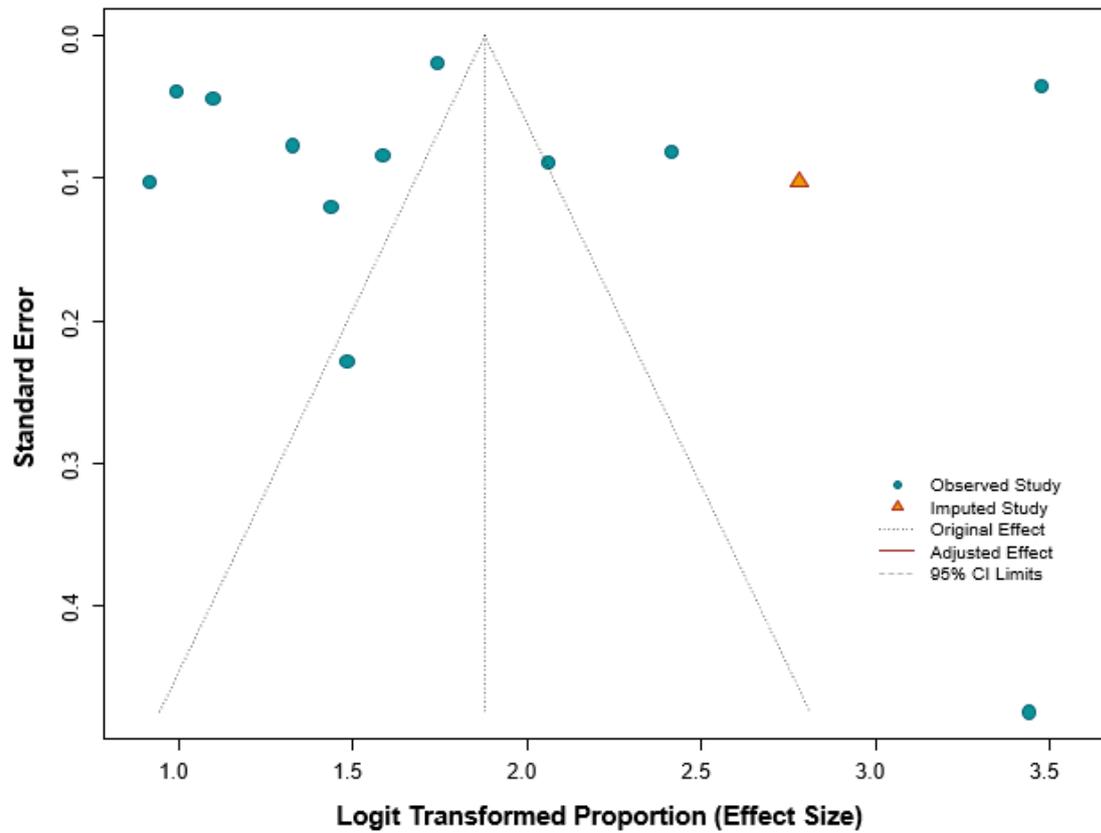| Databases	Search strategy
PubMed	((((Diabetes Mellitus[MeSH Terms]) OR (Diabetic Nephropathies[MeSH Terms])) OR (diabetic kidney disease[MeSH Terms])) AND ((((Machine Learning[MeSH Terms]) OR (Deep Learning[MeSH Terms])) OR (Neural Networks[MeSH Terms])) OR (ai artificial intelligence[MeSH Terms]))) AND ((((((machine predictive model[MeSH Terms]) OR (algorithm, predictive[MeSH Terms])) OR (predictive value of test[MeSH Terms])) OR (risk assessment[MeSH Terms])) OR (area under curve[MeSH Terms])) OR (sensitivity and specificity[MeSH Terms]))
EMBASE	('diabetic nephropathy'/exp OR 'diabetes nephropathy' OR 'diabetic kidney disease' OR 'diabetic nephropathies' OR 'diabetic nephropathy' OR 'diabetic renal disease') AND ('machine learning'/exp OR 'learning machine' OR 'learning machines' OR 'machine learning' OR 'deep learning'/exp OR 'deep ml' OR 'deep learning' OR 'deep machine learning' OR 'hierarchical learning' OR 'artificial intelligence'/exp OR 'artificial intelligence' OR 'machine Intelligence') AND ('predictive value'/exp OR 'negative predictive value' OR 'positive predictive value' OR 'predictive value' OR "predictive value of tests' OR 'risk assessment'/exp OR 'risk adjustment' OR 'risk analysis' OR 'risk appraisal' OR 'risk assessment' OR 'risk evaluation' OR 'area under the curve'/exp OR 'auc' OR 'auc (area under the curve)' OR 'area under curve' OR 'area under the curve' OR 'sensitivity and specificity'/exp OR 'sensitivity and specificity' OR 'specificity and sensitivity')
The Web of Science	(TS=("diabetic nephropathy" OR "diabetic kidney disease" OR "diabetes mellitus")) AND (TS=("machine learning" OR "deep learning" OR "artificial intelligence" OR "AI")) AND (TS=("predictive value" OR "risk assessment" OR "area under curve" OR "AUC" OR "predictive model" OR "sensitivity and specificity"))
MEDLINE	SU (Diabetes Mellitus or Diabetic Nephropathies or diabetic kidney disease) AND SU (machine learning or deep learning) AND SU (predictive model or predictive value of test or risk assessment)
Cochrane Library	Population ("Diabetes Mellitus" OR "Diabetic nephropathy" OR "Diabetic Renal Disease") AND Intervention ("Machine learning" OR "Artificial intelligence") AND Outcome ("Risk Assessment" OR "Sensitivity")