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Ischemic and bleeding outcomes by diabetes status in patients receiving ticagrelor monotherapy after percutaneous coronary intervention: an updated meta-analysis

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PubMed, n=205	(ticagrelor) AND (percutaneous coronary intervention OR PCI) AND (diabetics OR diabetes mellitus OR type 2 diabetes mellitus)
Cochrane Library, n=161	(ticagrelor) AND (percutaneous coronary intervention OR PCI) AND (diabetics OR diabetes mellitus OR type 2 diabetes mellitus)
Scopus, n=1001	(ticagrelor) AND (percutaneous coronary intervention OR PCI) AND (diabetics OR diabetes mellitus OR type 2 diabetes mellitus)

Supplementary Table S1. Search string used in each database.

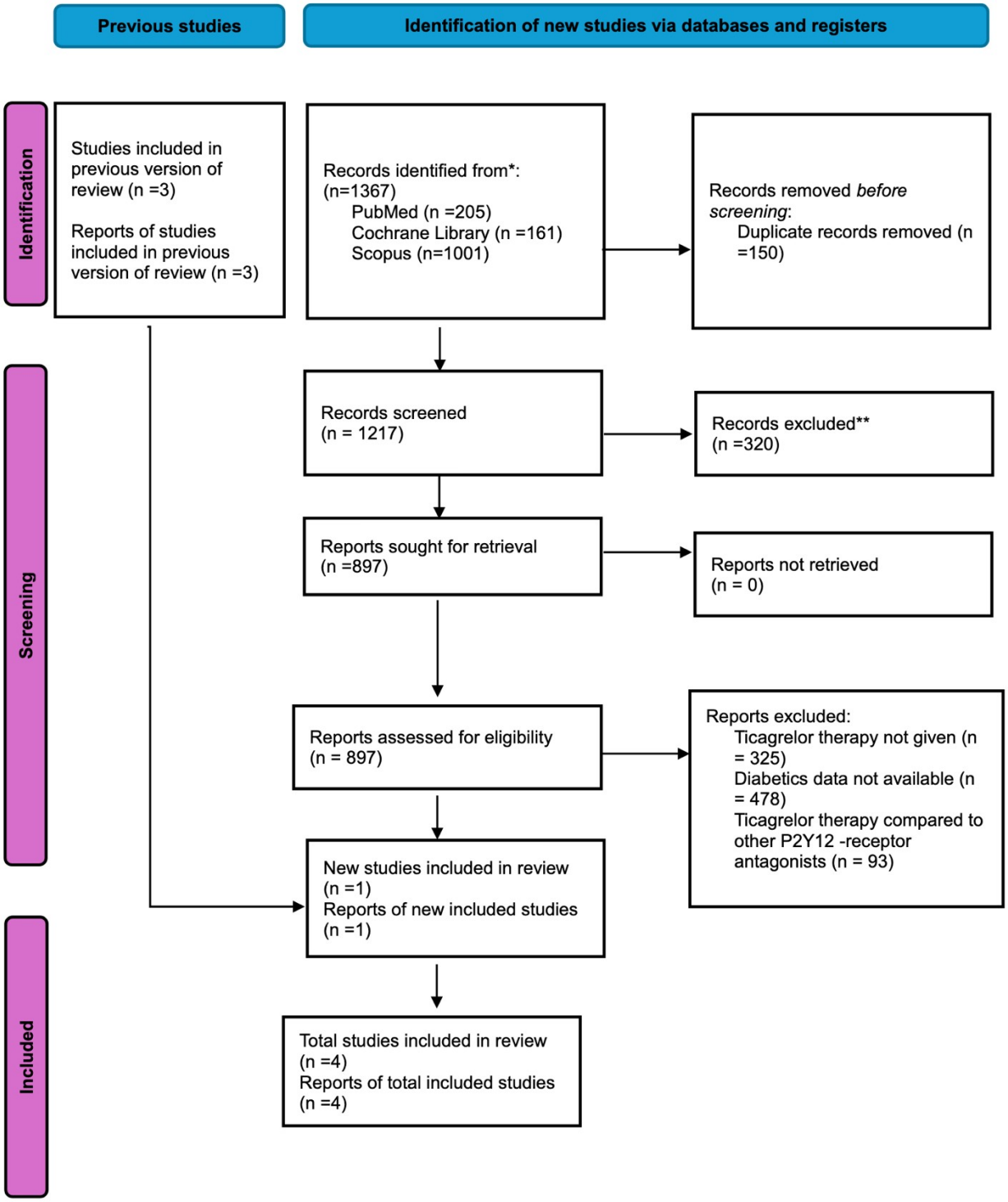
Studies	**Definition of MACE**
GLOBAL LEADERS	All-cause death, any stroke, or non-fatal new Q-wave myocardial infarction
TICO	Cardiovascular death, myocardial infarction and stroke
TWILIGHT	Cardiovascular death, myocardial infarction, or ischemic stroke
ULTIMATE-DAPT	cardiac death, myocardial infarction, ischemic stroke, definite stent thrombosis, and clinically driven target vessel revascularization

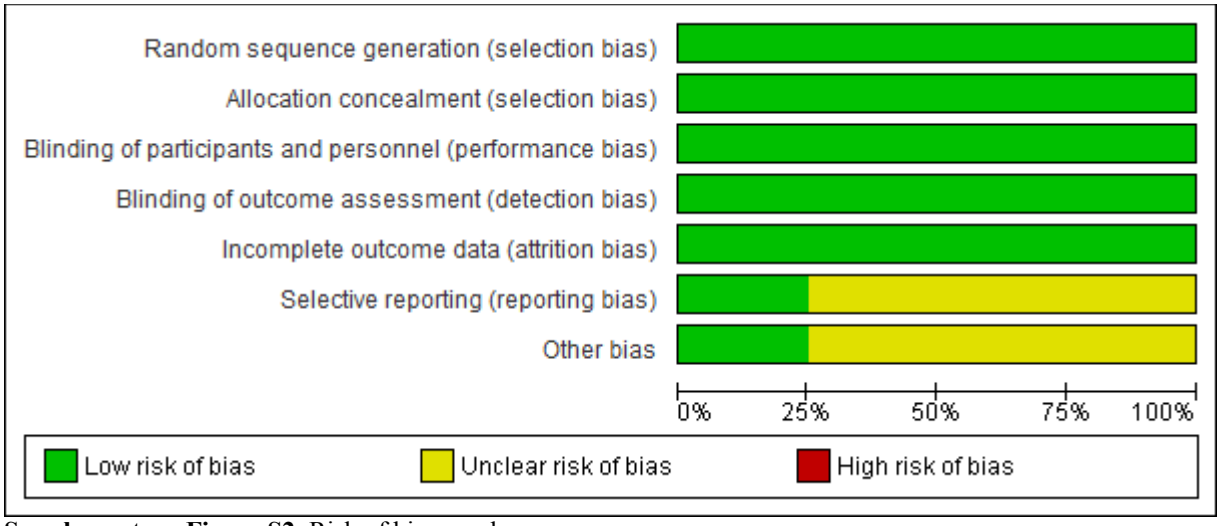
Supplementary Table S2. MACE definition used in each study.

Study (Year)	Randomization Process	Deviations from Intended Interventions	Missing Outcome Data	Measurement of the Outcome	Selection of Reported Result	Overall Bias
GLOBAL LEADERS (2020)	**Low risk** – Computerized randomization, stratified by center.	**Low risk** – Open-label design, but objective outcomes and ITT analysis reduce bias.	**Low risk** – >99% follow-up.	**Low risk** – Outcomes adjudicated independently.	**Some concerns** – DM+CKD subgroup was post hoc and exploratory; not pre-specified in trial registration.	**Some concerns**
TWILIGHT (2020)	**Low risk** – Web-based randomization, allocation concealed, stratified by site.	**Low risk** – Placebo-controlled, double-blind. Adherence monitored; ITT and per-protocol both analyzed.	**Low risk** – 98.4% follow-up.	**Low risk** – Blinded, independent adjudication.	**Some concerns** – DM subgroup pre-specified but no stratification at randomization; potential underpowering of subgroup analysis.	**Some concerns**
TICO (2021)	**Low risk** – Stratified randomization (including diabetes status); computer-generated.	**Low risk** – Open-label, but outcomes were objective (ischemia/bleeding).	**Low risk** – Full 12-month follow-up completed.	**Low risk** – Outcomes defined a priori using standard criteria.	**Some concerns** – Subgroup analysis (diabetics vs. non-diabetics) not a primary endpoint and not pre-stratified.	**Some concerns**
ULTIMATE-DAPT (2024)	**Low risk** – Double-blind, placebo-controlled, dynamic minimization stratified by site and DM status.	**Low risk** – Excellent protocol adherence, blinding preserved.	**Low risk** – <0.1% missing data.	**Low risk** – Blinded independent clinical events committee.	**Low risk** – Pre-specified endpoints, protocol-registered, no evidence of selective reporting.	**Low risk**

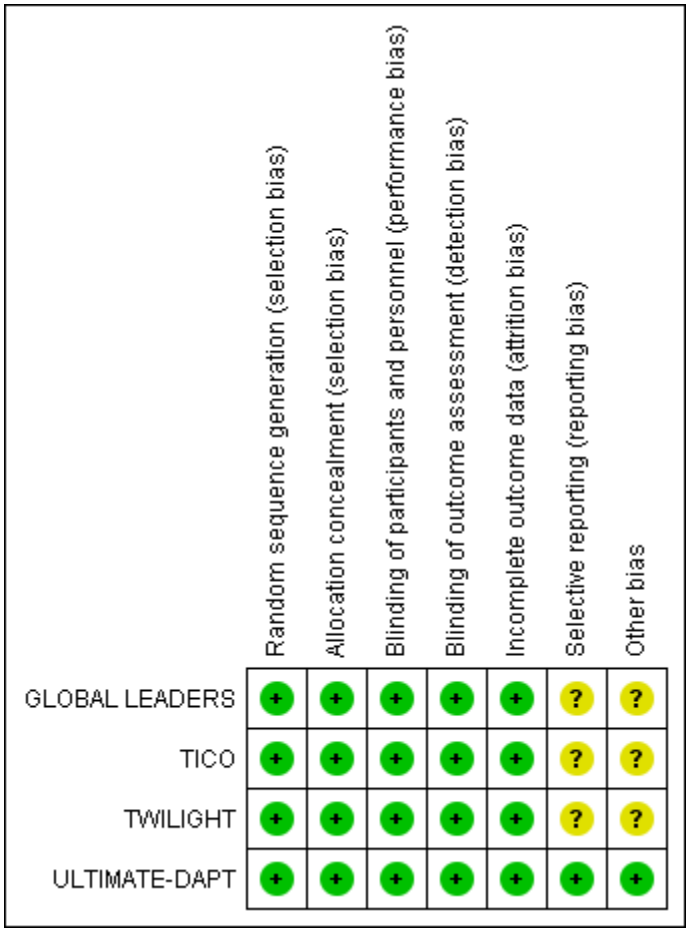
Supplementary Table S3. Summary of risk of bias assessment.

Supplementary Figure S1. PRISMA flowchart.

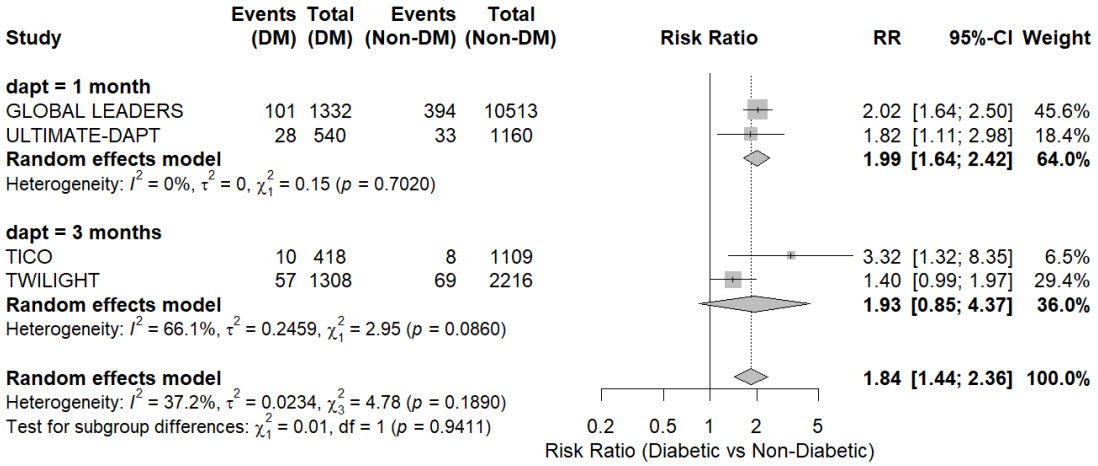




Supplementary Figure S2. Risk of bias graph.



Supplementary Figure S3. Risk of bias summary.



Supplementary Figure S4. Subgroup analysis of MACE based on DAPT duration**.**