Supplement Table 1 PICOTS format for study selection

	Participants (P)	**Intervention (I)**	**Control (C)**	**Outcomes (O)**	**Timeframe (T)**	**Setting (S)**	**Other limits**
Inclusion criteria	Both patients with and without diabetes; With coronary artery disease; At high risk of coronary artery disease.	diagnostic imaging techniques for coronary artery disease with the ability to provide information on plaque characteristics and vascular structure, including coronary computed tomography angiography (CCTA), intravascular ultrasound (IVUS), quantitative coronary angiography (QCA) and near infrared spectrum instrument (NIRS)	Golden standards	**Primary:** occurrence number of major adverse cardiovascular events(MACE) **Secondary:** coronary plaque characteristics	up to 2023	**Environment:** Hospitals; Institutions; etc.	Language: English
Exclusion criteria	Patients with other chronic diseases; Only diabetic patients were included.	diagnostic techniques for CAD without CCTA, IVUS etc.					Other language

Supplement Table 2

Patients with diabetes compared with patients without diabetes for MACE endpoints						
Patient or population: Diabetic patients with or at high risk of CAD Setting: Clinical care settings such as hospitals, institutions, and so on Intervention: diagnostic imaging techniques for CAD with the ability to provide information on plaque and vascular structure Comparison: patients without diabetes with or at high risk of CAD						
	Estimated risks (95% CI) [a]					
	Control risk	Intervention risk		No. of Participants	Quality of the evidence	
Outcomes	NDM	DM	Relative effect (95% CI)	(studies)	(GRADE)	Comments
all lesions	349 per 1000	635 per 1000	OR 1.78 (1.53-2.07)	2348(5)	⊕⊕⊕⊕ High	
CLs	206 per 1000	389 per 1000	OR 1.54 (1.28-1.85)	2348(5)	⊕⊕⊕⊕ High	
NCLs	192 per 1000	409 per 1000	OR 1.86 (1.54-2.24)	2348(5)	⊕⊕⊕⊕ High	
indeterminate lesions	91 per 1000	171 per 1000	OR 1.66 (1.26-2.18)	2348(5)	⊕⊕⊕⊕ High	
Qualitative measures of coronary plaque characteristics	306 per 1000	291 per 1000	OR 1.12 (0.99-1.27)	-	⊕⊕⊕◯ Moderate [b]	Both two focused on plaques and the relative effect for quantitative measures was evaluated by SMD.
Quantitative measures of coronary plaque characteristics	-	-	-	-	⊕⊕◯◯ Low [c]	

Abbreviations: CI, confidence interval; MACE, major adverse cardiovascular event; CAD, coronary artery disease; CLs, culprit lesions; NCLs, non-culprit lesions; OR, odds ratio; GRADE, Grading of Recommendations Assessment, Development, and Evaluation.

a. Control risk is based on patients without diabetes and the intervention risk (and its 95% CI) is based on patients with diabetes.

b. Caused by serious imprecision due to the small number of articles and the number of positive events while wide confidence intervals and no statistically significant effect size differences led to serious imprecision.

c. Caused by serious inconsistency that inconsistency in absolute effects (heterogeneity: $P < 0.00001, I^2 = 97\%$) and serious imprecision

Supplement Table 3

Study year	Study design	DM patients		Non-DM patients		Lesions and coronary plaque characteristics	Test mode	Time of follow-up
		No.	Sex ratio	No.	Sex ratio			
Christian Tesche et al. 2023	Retrospective cohort study	64	190.91	297	180.19	All (Agatston score,Low-attenuation plaque,Spotty calcification,Positive remodeling,Napkin-ring sign,MLA,MLA $\leqslant$4 mm^2)	CCTA	5.4 years(median)
Steven P. Marso et al. 2012	Multicenter Study	119	250	315	425	NCLs(CSA,Fibroatheroma,TCFA, Fibrocalcific)	IVUS QCA	3 years
Serdar Farhan et al. 2019	Comparative Study	183	258.82	162	422.58	NCLs(CSA,Total number of VH-TCFA lesions per patient,Total number of FA lesions per patient,HRP characteristics)	IVUS	3 years
Serdar Farhan et al. 2021	Observational Study	99	230	408	363.64	NCLs(CSA,Total number of VH-TCFA lesions per patients,HRP characteristics)	IVUS	3 years
Christine Gyldenkerne et al. 2023	Prospective study	109	289.29	789	531.2	NCLs,CLs(Lesion LCBI,MaxLCBI$_{4mm}$,Lesions with maximum PB$\geqslant$70%,Lesions with MLA$\leqslant$4mm^2,MLA)	IVUS NIRS	3.7 years(median)

Pierluigi Demola et al. 2022	Prospective study	562	191.19	985	262.32	All(EEM,MaxLCBI$_{4mm}$,PB$\geqslant$ 70%,MLA)	NIRS-IVUS	24 months
Elvin Kedhi, et al. 2017	Observational Study	82	331.58	82	355.56	NCLs(MLD,MLA$\leqslant$4mm^2,PB$\geqslant$ 70%,TCFA)	IVUS	3 years

Study year	MACE endpoints	NOS Score
Christian Tesche et al. 2023	Univariate Cox Proportional Hazards Regression Analysis of Coronary CT-derived Markers in Patients With Diabetes and Without Diabetes for the Prediction of MACE and diagnostic performance for the prediction of MACE	7
Steven P. Marso et al. 2012	Major adverse cardiac events,Cardiac death,MI,Cardiac arrest,Rehospitalization,Revascularization (PCI or CABG),Stent thrombosis,Death all-cause	6
Serdar Farhan et al. 2019	Major adverse cardiac events,Cardiac death,MI,Cardiac arrest,Rehospitalization,Revascularization (PCI or CABG),Stent thrombosis	5
Serdar Farhan et al. 2021	Major adverse cardiac events,Cardiac death,MI,Cardiac arrest,Rehospitalization,Revascularization (PCI or CABG),Stent thrombosis	6
Christine Gyldenkerne et al. 2023	Major adverse cardiac events,Cardiac death,MI,Revascularization (PCI or CABG) ,Angina,Stent thrombosis	7
Pierluigi Demola et al. 2022	Patient-level cumulative incidence curves of NC-MACE comparing noDM, non-ITDM, and ITDM patients	8
Elvin Kedhi,et al. 2017	Major adverse cardiac events,Cardiac death,Cardiac arrest,MI,Rehospitalization,Revascularization (PCI or CABG)	6