

Comparative Outcomes of Various DES from IRIS-MAIN Registry and PRECOMBAT Series

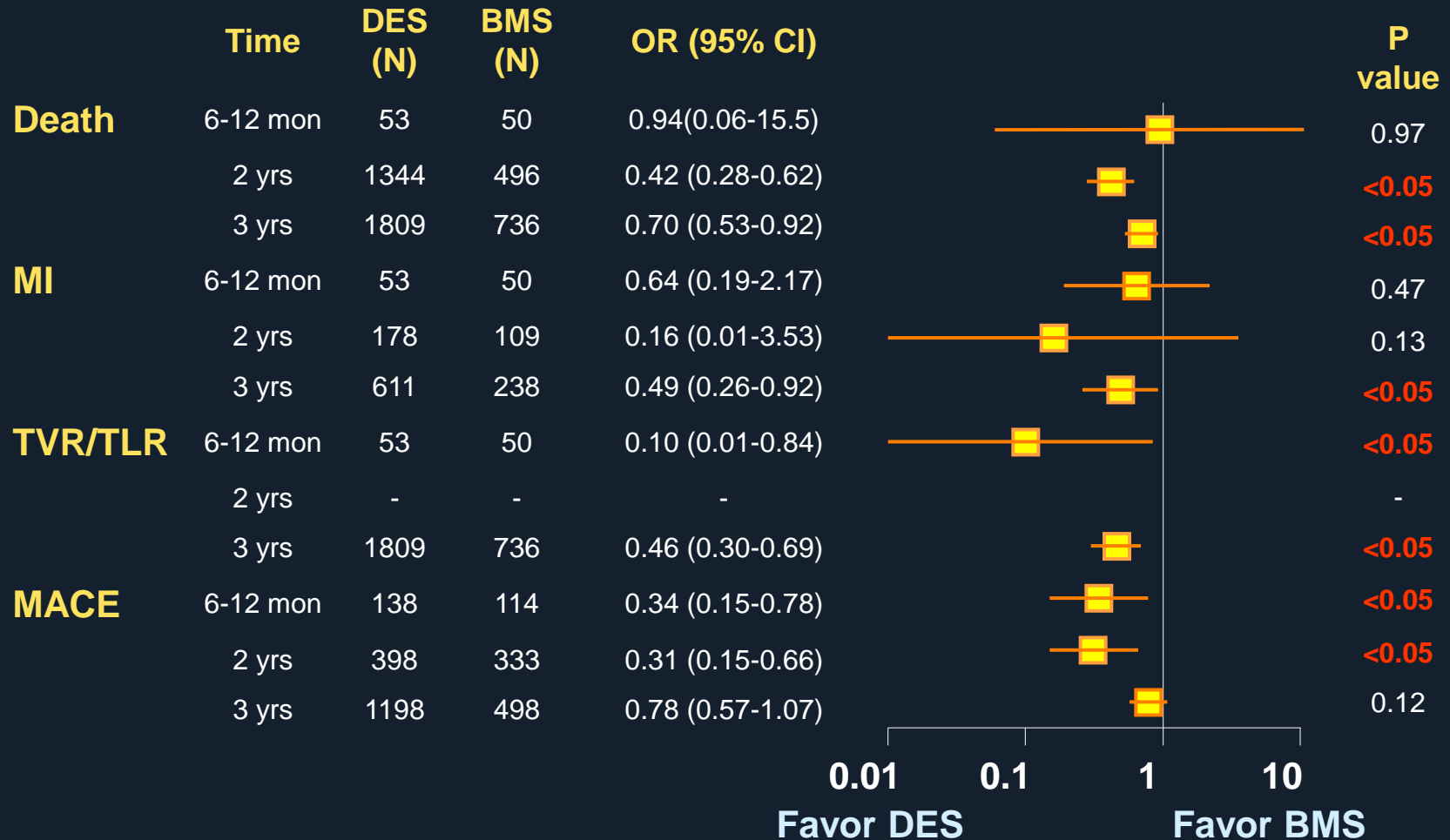
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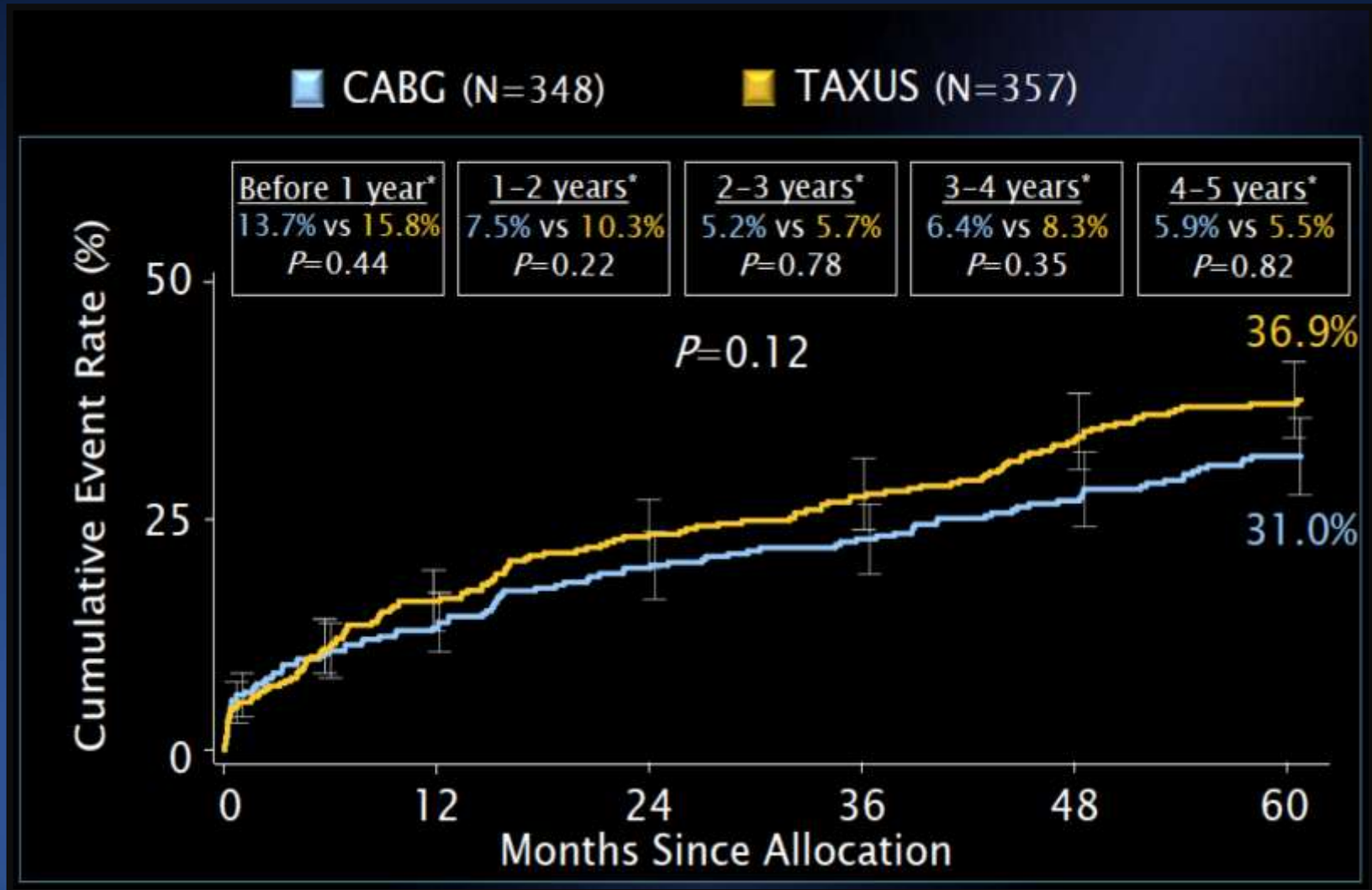
BMS vs. 1st DES for LM

Meta-Analysis from 44 Studies and 10,342 Patients



SYNTAX (TAXUS)

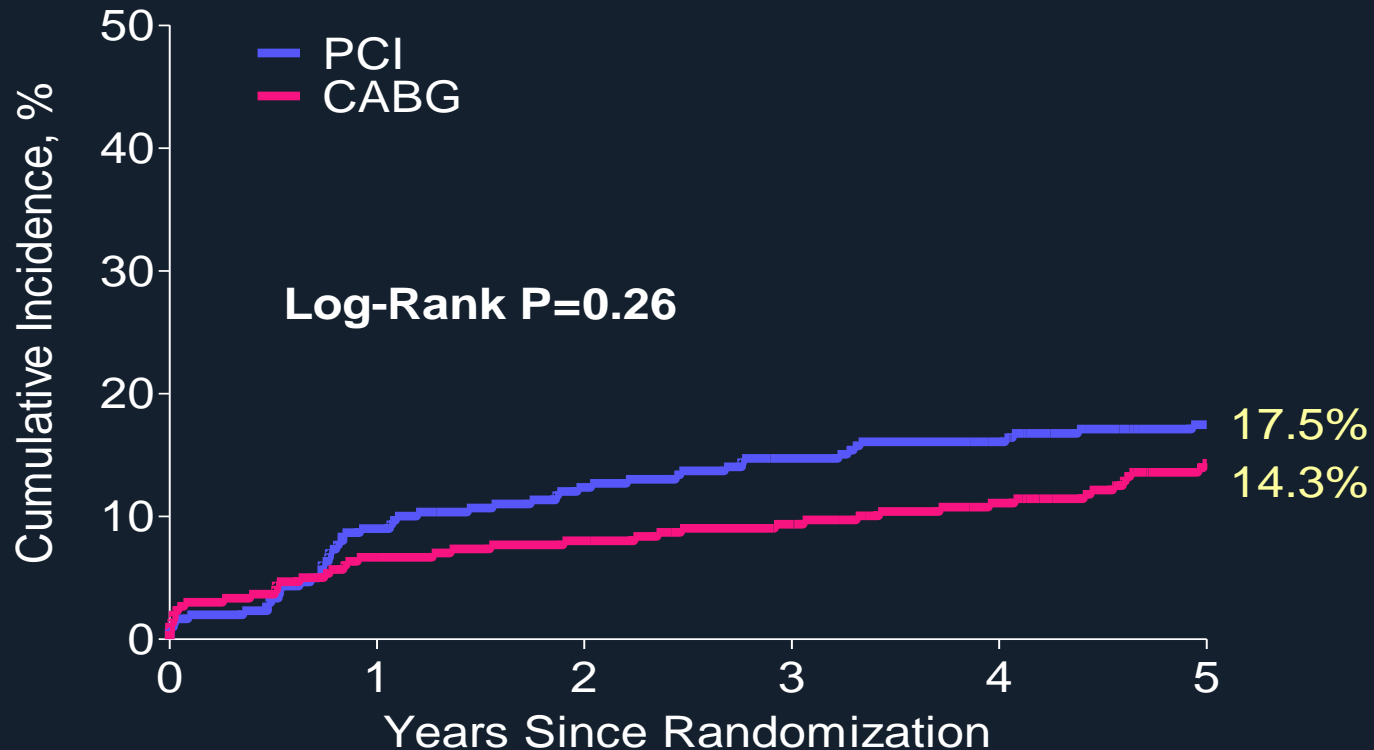
Primary End Point (Death, MI, Stroke, or RR)



Circulation. 2014 Jun 10;129(23):2388-94

PRECOMBAT (CYPHER)

Primary End Point (Death, MI, Stroke, or iTVR)



Patient at risk

PCI	300	272	261	252	246	231
CABG	300	279	274	267	256	235

J Am Coll Cardiol. 2015

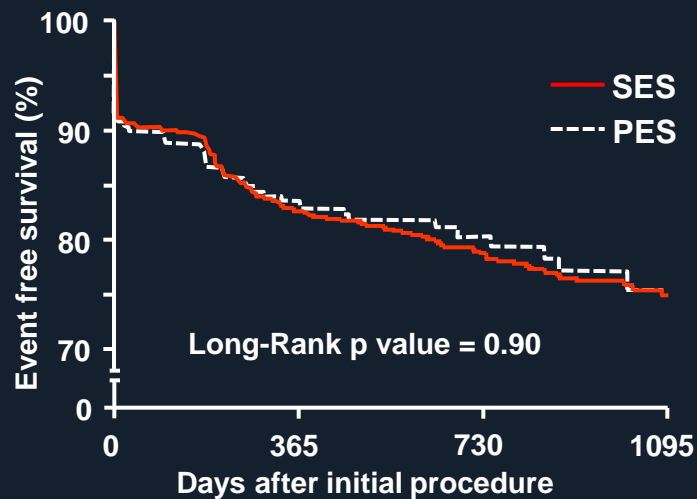
Guidelines in LM Disease

	2011 ACCF/AHA/SCAI	LOE	2014 ESC Guideline	LOE
CABG	I	B	I	B
PCI			I LM with a SYNTAX score ≤ 22	B
	IIa SIHD SYNTAX Score ≤ 22 , ostial or trunk LM STS score $\geq 5\%$ UA /NSTEMI if not a CABG candidate	B B	IIa LM with a SYNTAX score 23-32	B
	STEMI	C		
	IIb SIHD SYNTAX Score < 33 , bifurcation LM A increased risk of surgery (STS $>2\%$)	B		
	III Unfavorable anatomy for PCI	B	III LM with a SYNTAX score > 32	B

SES vs. PES for LM

MAINCOMPARE

Death, MI, or TVR

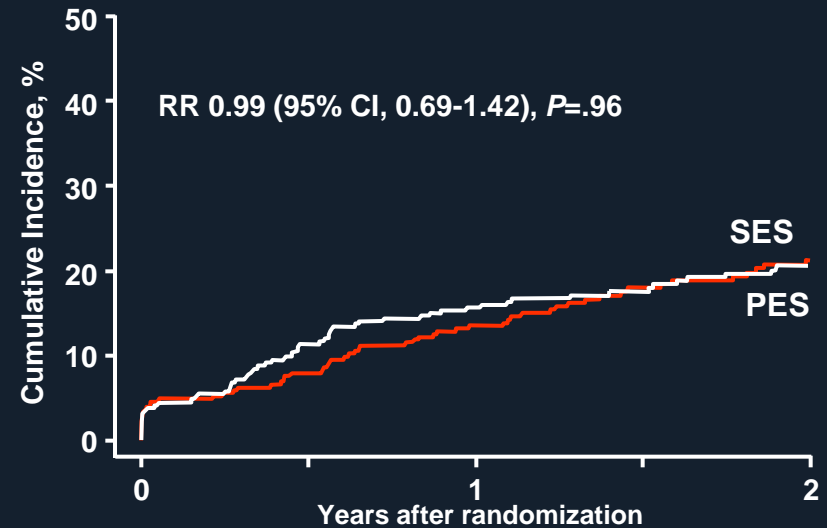


Number at risk

PES	189	153	94	31
SES	669	551	367	169

ISAR LM-1

Death, MI or TVR



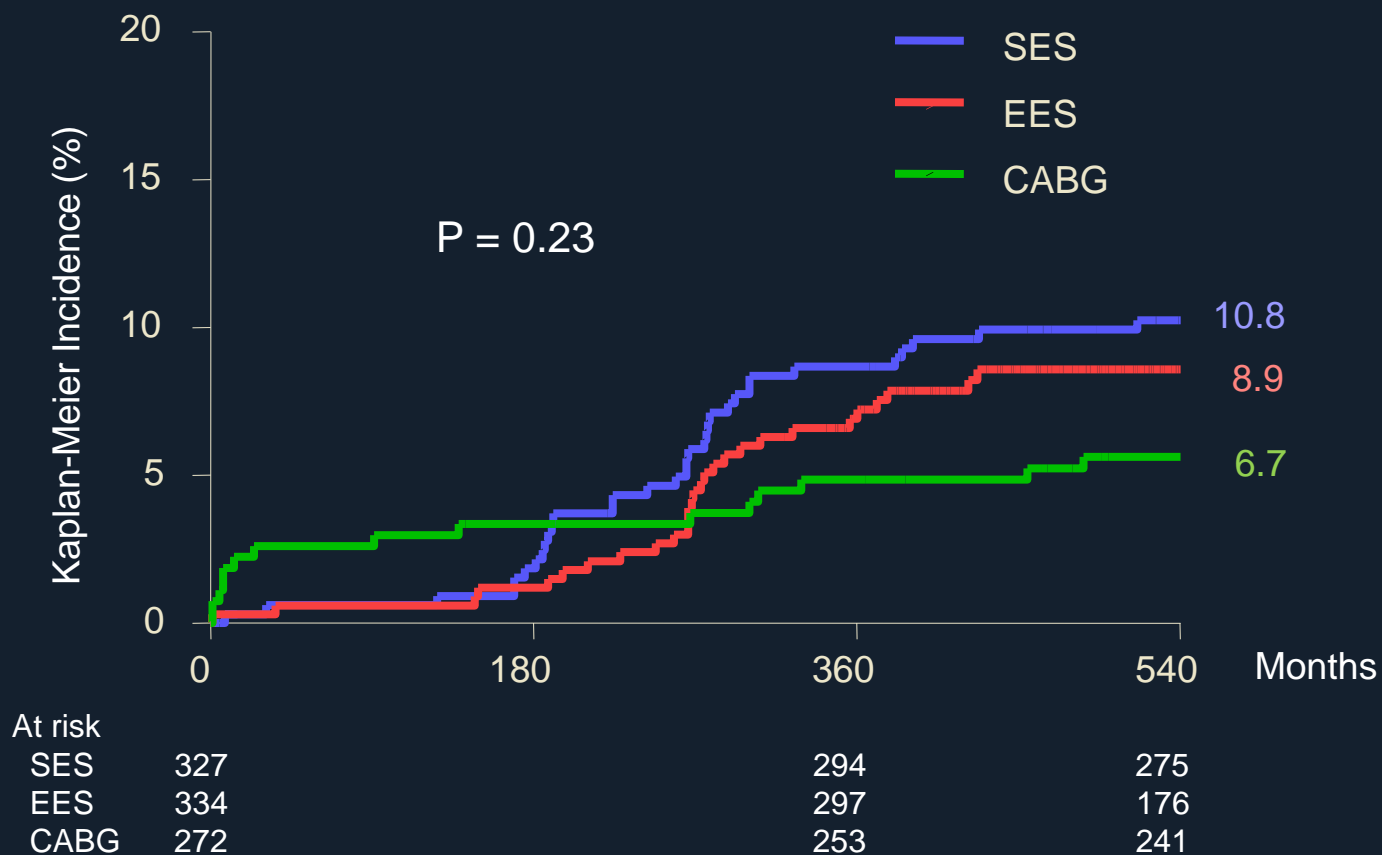
Patients at Risk

PES	302	278	250	189	160
SES	305	271	252	198	176

1st vs. 2nd DES for LM

PRECOMBAT-2 Study

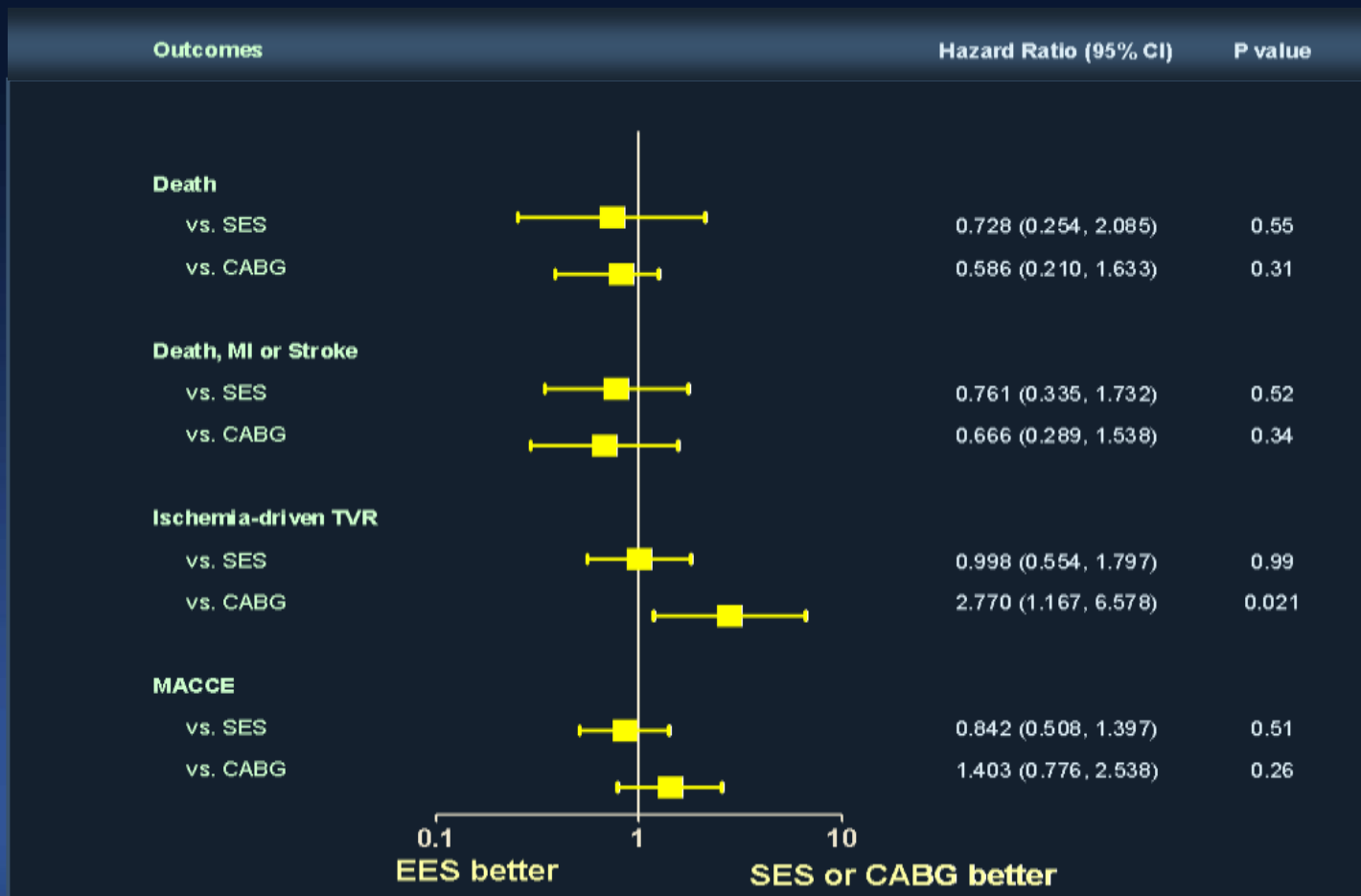
MACCE



1st vs. 2nd DES for LM

PRECOMBAT-2 Study

Hazard Ratios of EES after Adjustment



1st vs. 2nd DES for LM

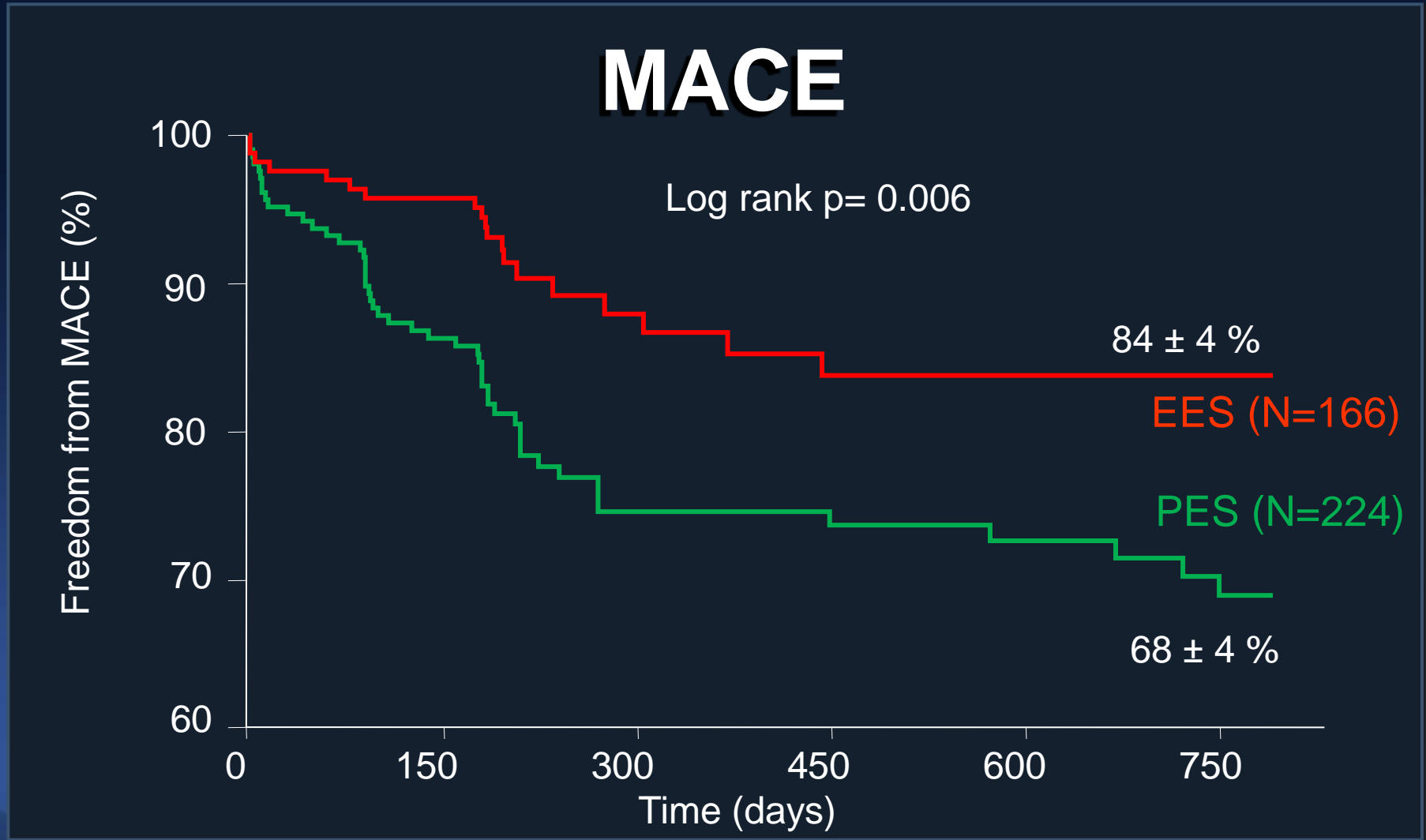
EXCELLENT registry

1 Year Outcome

	Events			Propensity Score Adjustment	
	EES (N=160)	SES (N=115)	P value	HR (95% CI)	P value
Death/MI/TVR	12 (7.5%)	16 (13.9%)	0.117	0.43 (0.20-0.95)	0.037
Death	7 (4.4%)	8 (7.0%)	0.383	0.52 (0.18-0.51)	0.23
Death/MI	8 (5.0%)	8 (7.0%)	0.529	0.60 (0.21-0.67)	0.323
TVR	4 (2.5%)	8 (7.0%)	0.096	0.28 (0.08-0.98)	0.046

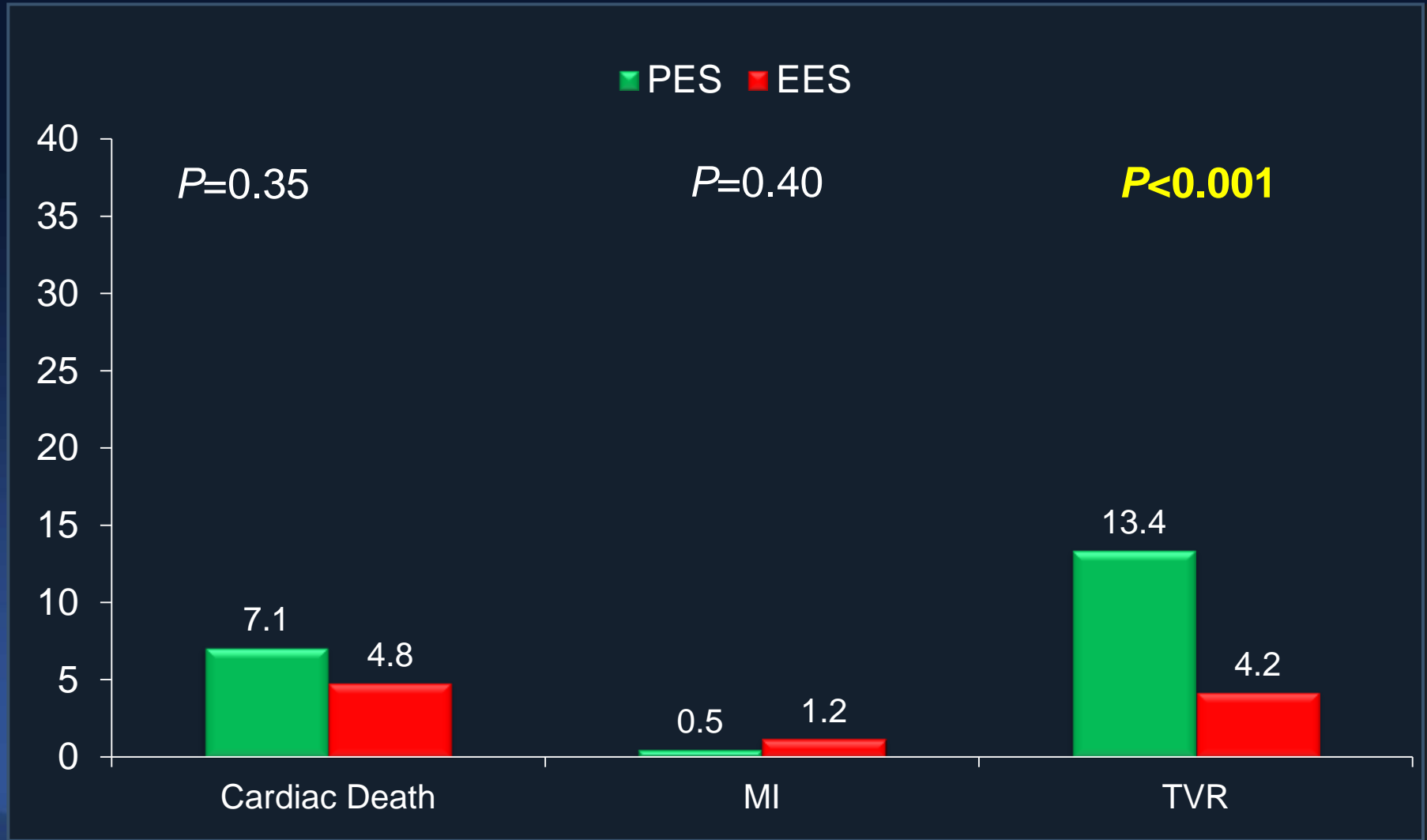
1st vs. 2nd DES for LM

PCI Florence Registry



1st vs. 2nd DES for LM

PCI Florence Registry



1st vs. 2nd DES for LM

ESTROFA-LM registry

3 Year Event Free Survival

	Events		P value
	PES (N=415)	EES (N=355)	
Death and MI	86%	87%	0.50
Cardiac Death and MI	92%	91%	0.90
TLR	96%	94%	0.10
All revascularization	84%	86%	0.10
Death, MI, and TLR	84%	82%	0.60

ISAR-LEFT MAIN 2 Trial

**650 patients with uLMCA lesions
pre-treated with 600 mg clopidogrel**

**Zotarolimus-eluting stent
(Endeavor Resolute)
N= 324**

**Angiographic follow-up at 8
months in 73% (N=237)**

**Clinical follow-up at 12 months in
100% (N=324)**

**Everolimus-eluting stent
(Xience)
N= 326**

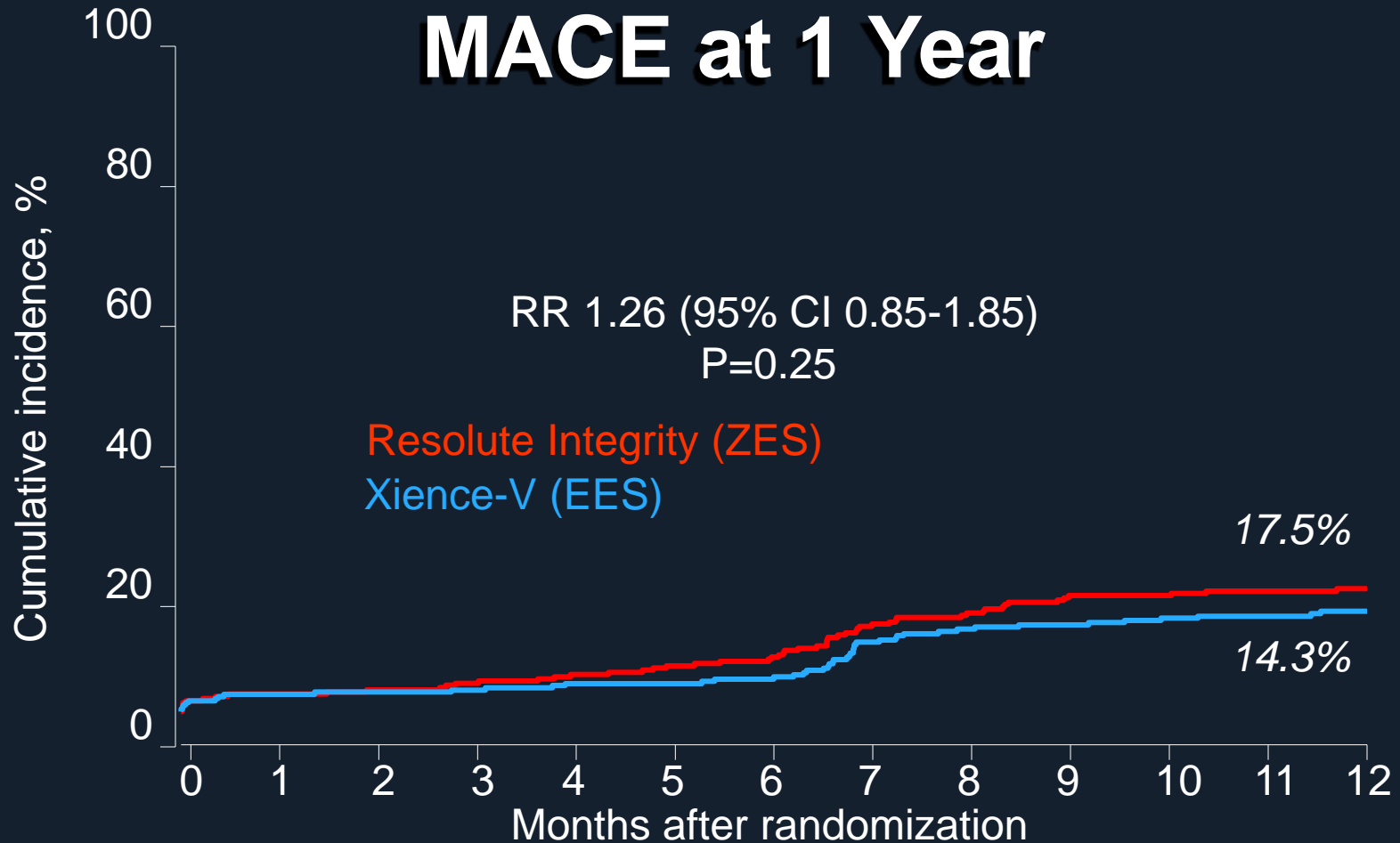
**Angiographic follow-up at 8 months
in 69% (N=226)**

**Clinical follow-up at 12 months in
100% (N=326)**

2nd DES for LM

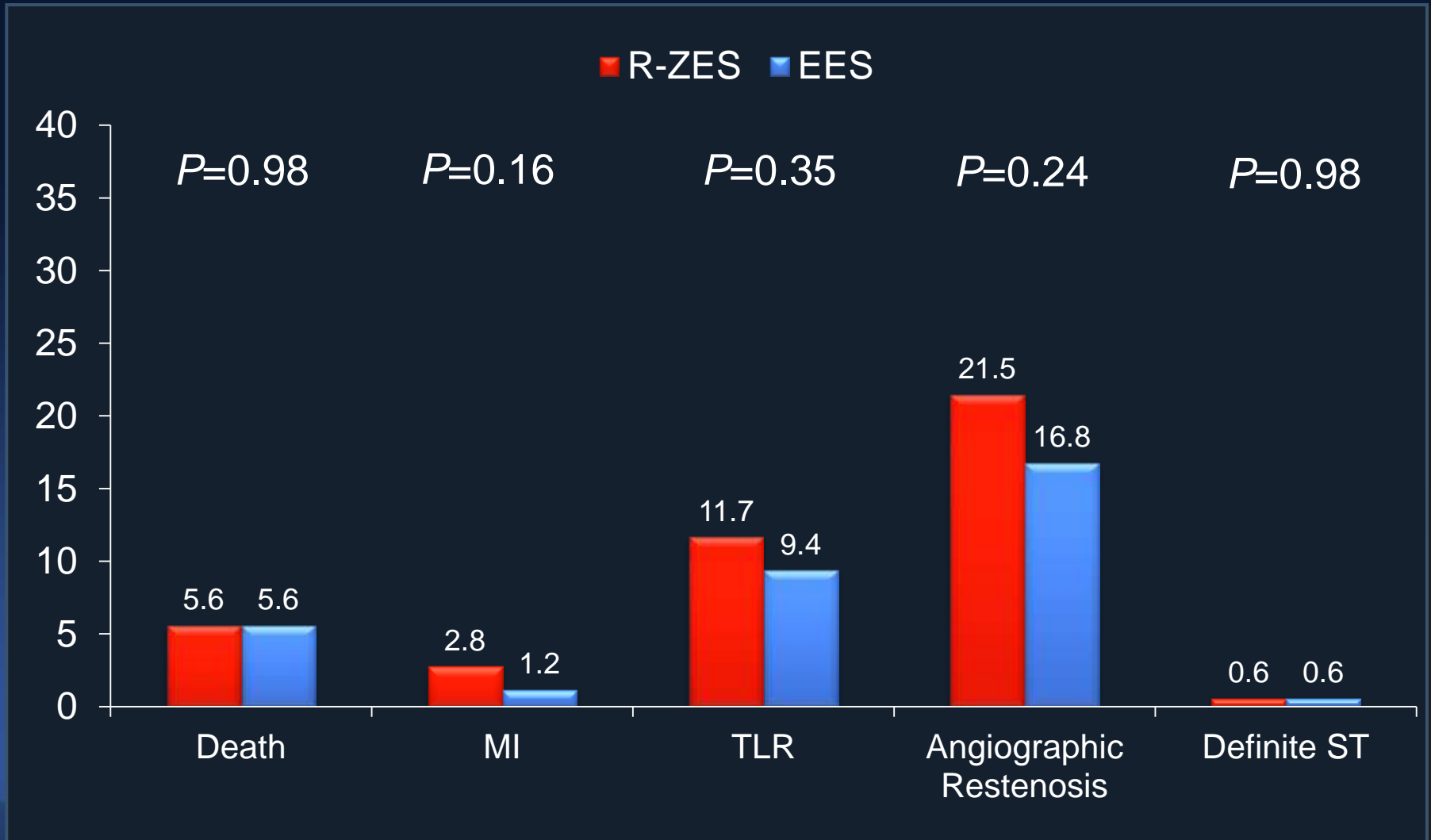
ISAR Left Main 2 (n=650)

MACE at 1 Year



ISAR Left Main 2 (n=650)

Outcomes at 1 Year



PRECOMBAT Series

New DES Evaluation !

FU completed

Enrollment completed

On going

PRE-COMBAT

PRE-COMBAT-2

for unprotected left main disease

PRE-COMBAT-3

for unprotected left main disease

PRE-COMBAT-4

for unprotected left main disease

PRE-COMBAT-5

for unprotected left main disease

R

PCI with
Cypher
N=300

CABG
N=300

Treated with
Xience V Stent

Pts randomizable in the PRECOMBAT
N=300

Treated with
Promus Element stent

Pts randomizable in the PRECOMBAT
N=300

Treated with
Resolute Integrity

Pts randomizable in the PRECOMBAT
N=300

Treated with
Orsiro Stent

Pts randomizable in the PRECOMBAT
N=300

Primary Endpoint (MACCE):

2-year death, MI, Stroke, and ischemic driven TVR

PRECOMBAT-3 Trial

Design

- **DESIGN:** a prospective, single arm, registry
- **OBJECTIVE:** To evaluate the outcomes of PCI with everolimus-eluting **PROMUS ELEMNT (PtCr-EES)** stents for patients with ULMCA stenosis, the results were compared with those of patients receiving SES, CoCr-EES and CABG in the PRECOMBAT trial
- **PRINCIPAL INVESTIGATOR**
Seung-Jung Park, MD, PhD, Asan Medical Center, Seoul, Korea

Baseline Characteristics

	SES (N=327)	CoCr-EES (N=334)	PtCr-EES (N=300)	CABG (N=272)	P value
Age, years	62.0±10.0	62.9±10.4	64.3±10.3	62.5±9.4	0.026
Male sex	249 (76.1)	236 (70.7)	231 (77.0)	209 (76.8)	0.19
Diabetes mellitus	109 (33.3)	116 (34.7)	94 (31.3)	82 (30.1)	0.63
Hypertension	176 (53.8)	189 (56.6)	191(63.7)	140 (51.5)	0.018
Hyperlipidemia	139 (42.5)	149 (44.6)	155 (51.7)	107 (39.3)	0.021
Current smoker	97 (29.7)	75 (22.5)	70 (23.3)	74 (27.2)	0.13
Previous PCI	42 (12.8)	27 (8.1)	51 (17.0)	34 (12.5)	0.009
Previous MI	16 (4.9)	13 (3.9)	15 (5.0)	17 (6.3)	0.62
Previous heart failure	0	4 (1.2)	11 (3.7)	2 (0.7)	0.001

Baseline Characteristics

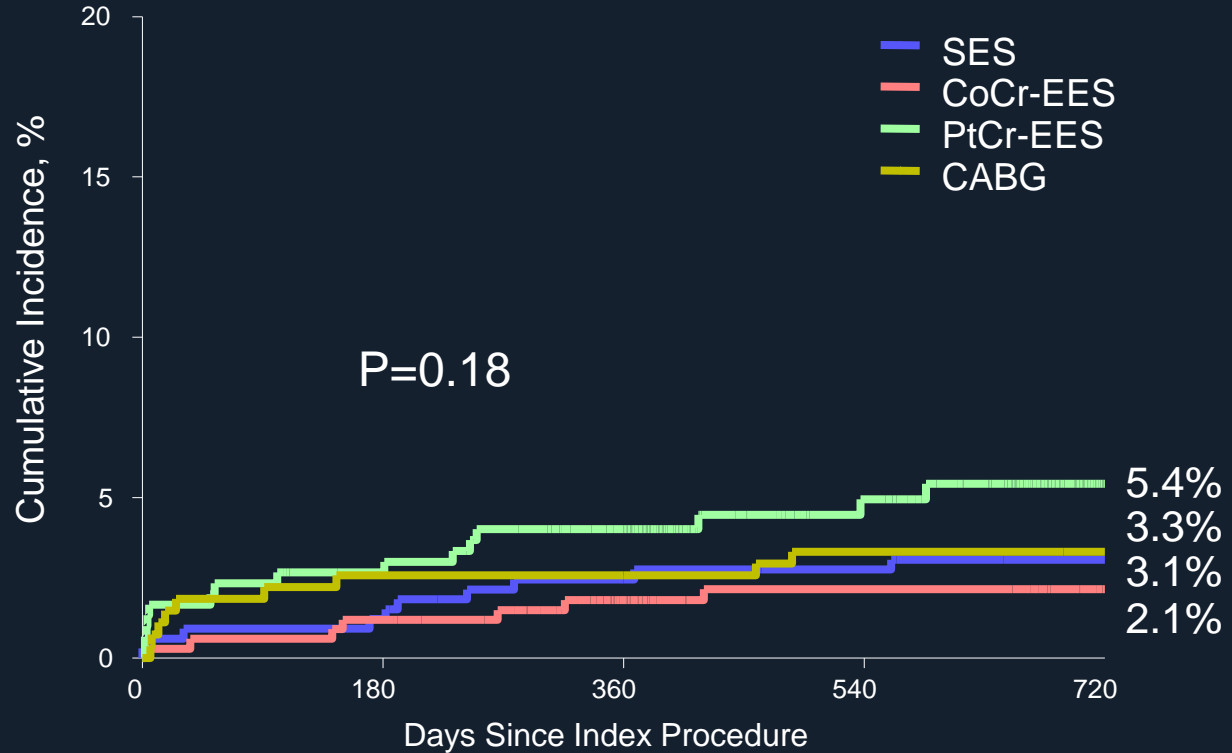
	SES (N=327)	CoCr-EES (N=334)	PtCr-EES (N=300)	CABG (N=272)	P value
Chronic renal failure	3 (0.9)	4 (1.2)	15 (5.0)	2 (0.7)	< 0.05
Peri. vascular disease	15 (4.6)	6 (1.8)	18 (6.0)	7 (2.6)	0.02
Chronic lung disease	8 (2.4)	4 (1.2)	9 (3.0)	7 (2.6)	0.46
ACS	155 (47.4)	151 (45.2)	151 (50.3)	147 (54.0)	0.16
Ejection fraction, %	61.5±8.4	61.1±8.2	59.0±9.9	60.8±8.4	<0.05
EuroSCORE	2.8±1.9	2.9±2.0	3.4±2.4	2.9±2.0	<0.05
Multivessel disease	231 (70.6)	191 (57.2)	198 (66.0)	205 (75.4)	< 0.05
LM bifurcation	219 (67.0)	240 (71.9)	207 (69.0)	163 (59.9)	< 0.05
SYNTAX Score	23.8±9.5	21.1±8.8	21.0±9.6	26.8±10.4	<0.05

Procedures

	SES (N=327)	CoCr-EES (N=334)	PtCr-EES (N=300)	CABG (N=272)	P value
Total stent N. in left main	1.6±0.8	1.8±0.9	1.7±0.8	–	<0.05
Total stent N. per patient	2.6±1.4	2.3±1.3	2.3±1.2	–	<0.05
IVUS	294 (89.9)	302 (90.4)	270 (90.0)	–	0.83
Two-stent technique	112 (34.3)	88 (26.3)	81 (27.0)	–	0.049
Angiographic follow-up	249 (76.1)	203 (60.8)	121 (40.3)	–	< 0.05
N. of conduits	–	–	–	2.7±0.9	
N. of arterial conduits	–	–	–	2.1±0.9	
Off-pump surgery	–	–	–	166 (61.0)	
Use of LIMA	–	–	–	254 (93.4)	

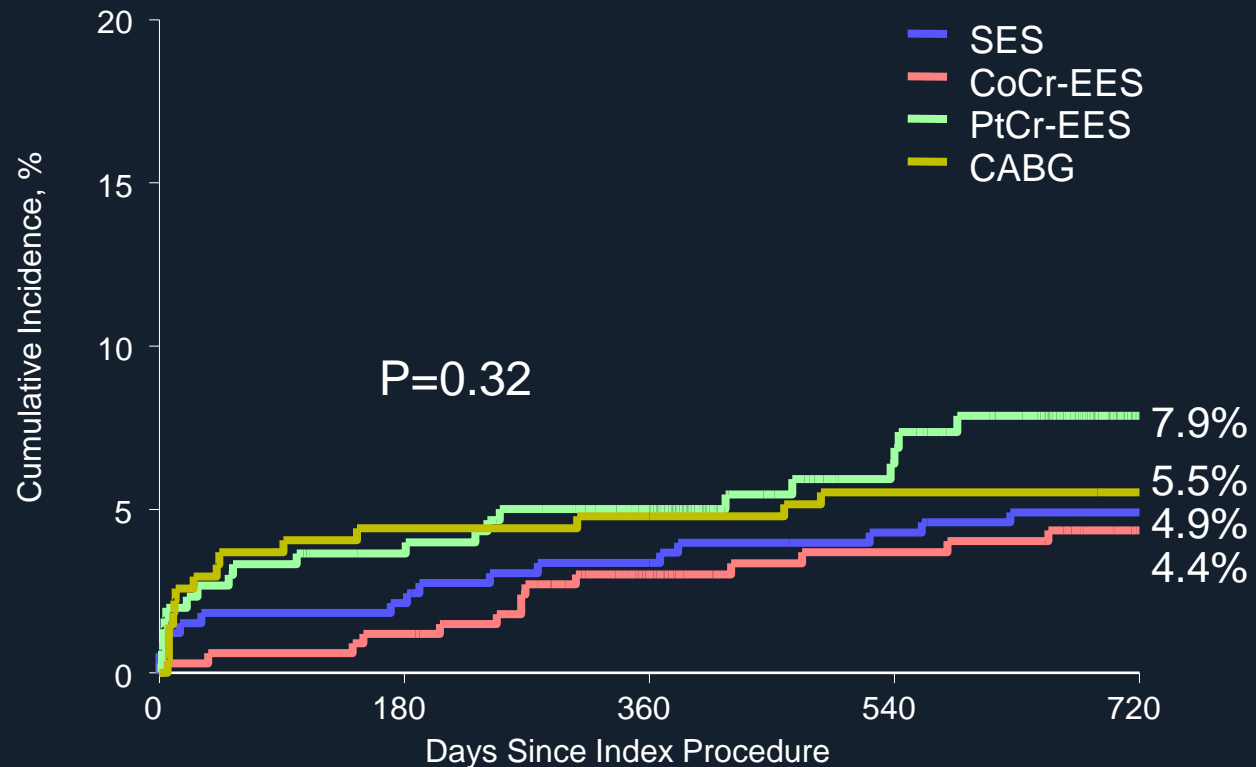
Clinical Outcomes

Death



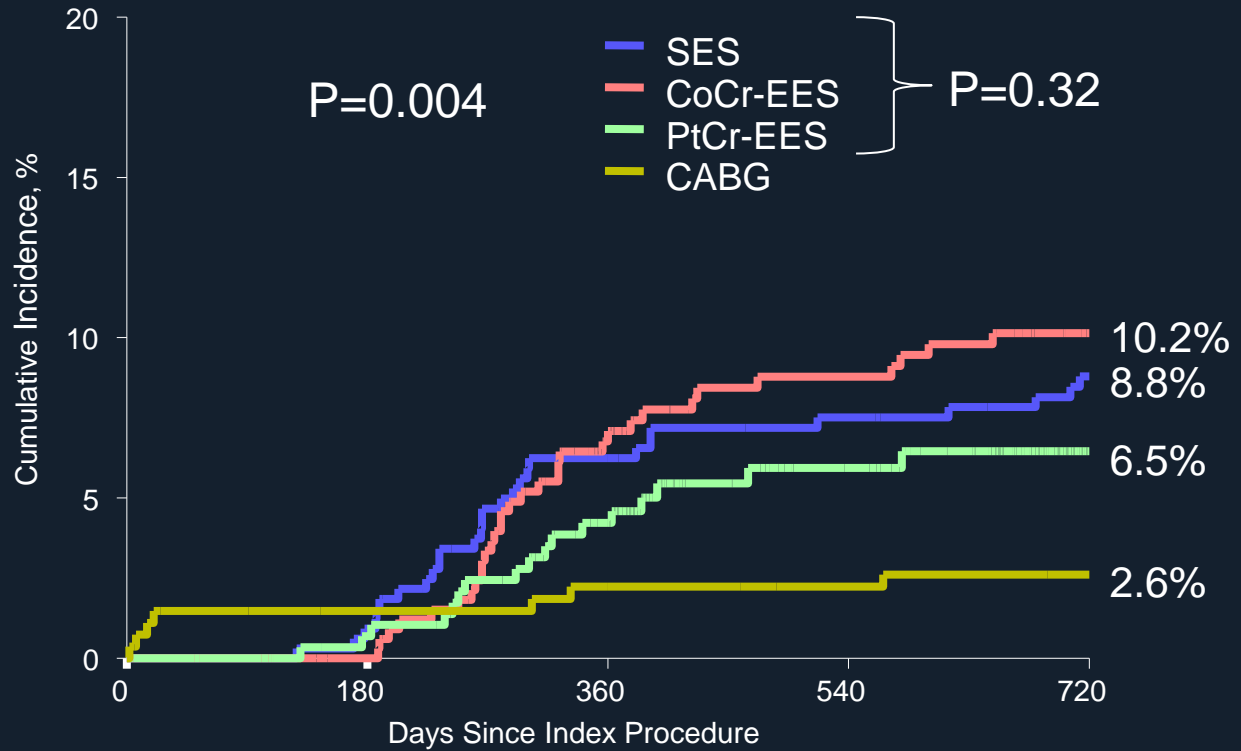
N. at risk	0	180	360	540	720
SES	327	324	317	315	311
CoCrEES	334	331	308	292	282
PtCrEES	300	289	273	200	119
CABG	272	265	264	262	260

Death, MI, or Stroke



N. at risk	0	180	360	540	720
SES	327	321	314	310	306
CoCrEES	334	331	304	287	275
PtCrEES	300	286	270	194	116
CABG	272	260	258	256	254

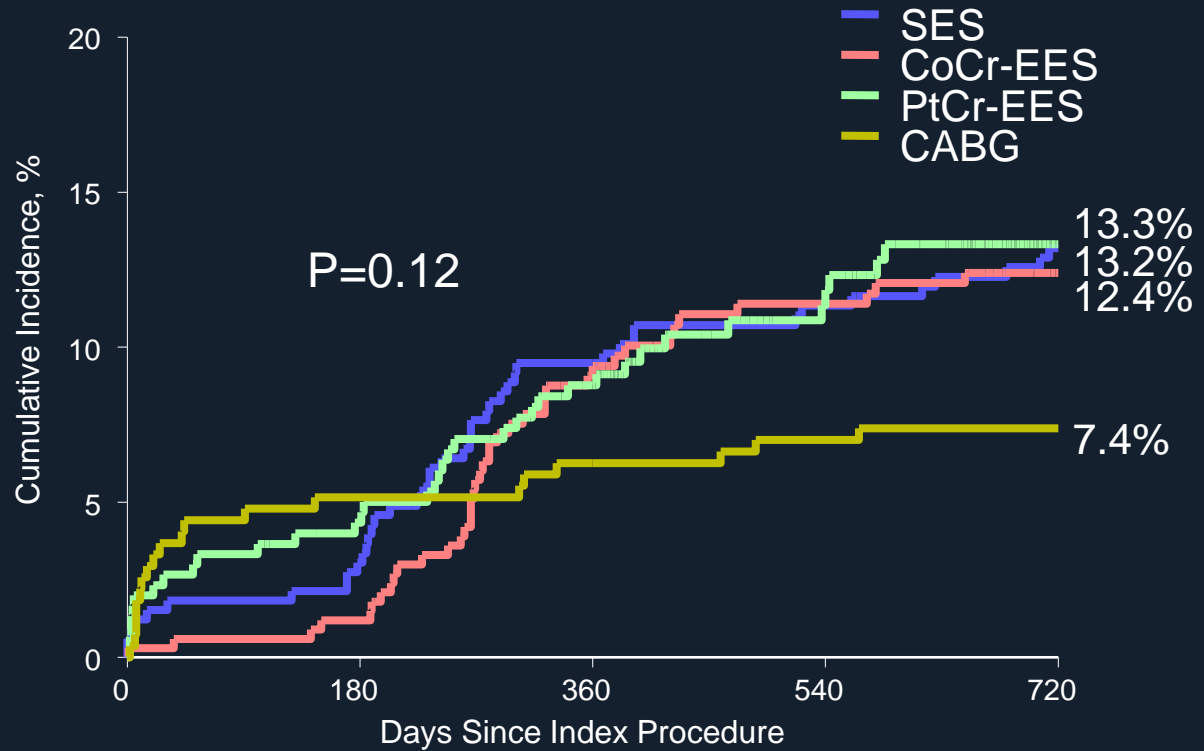
TVR



N. at risk

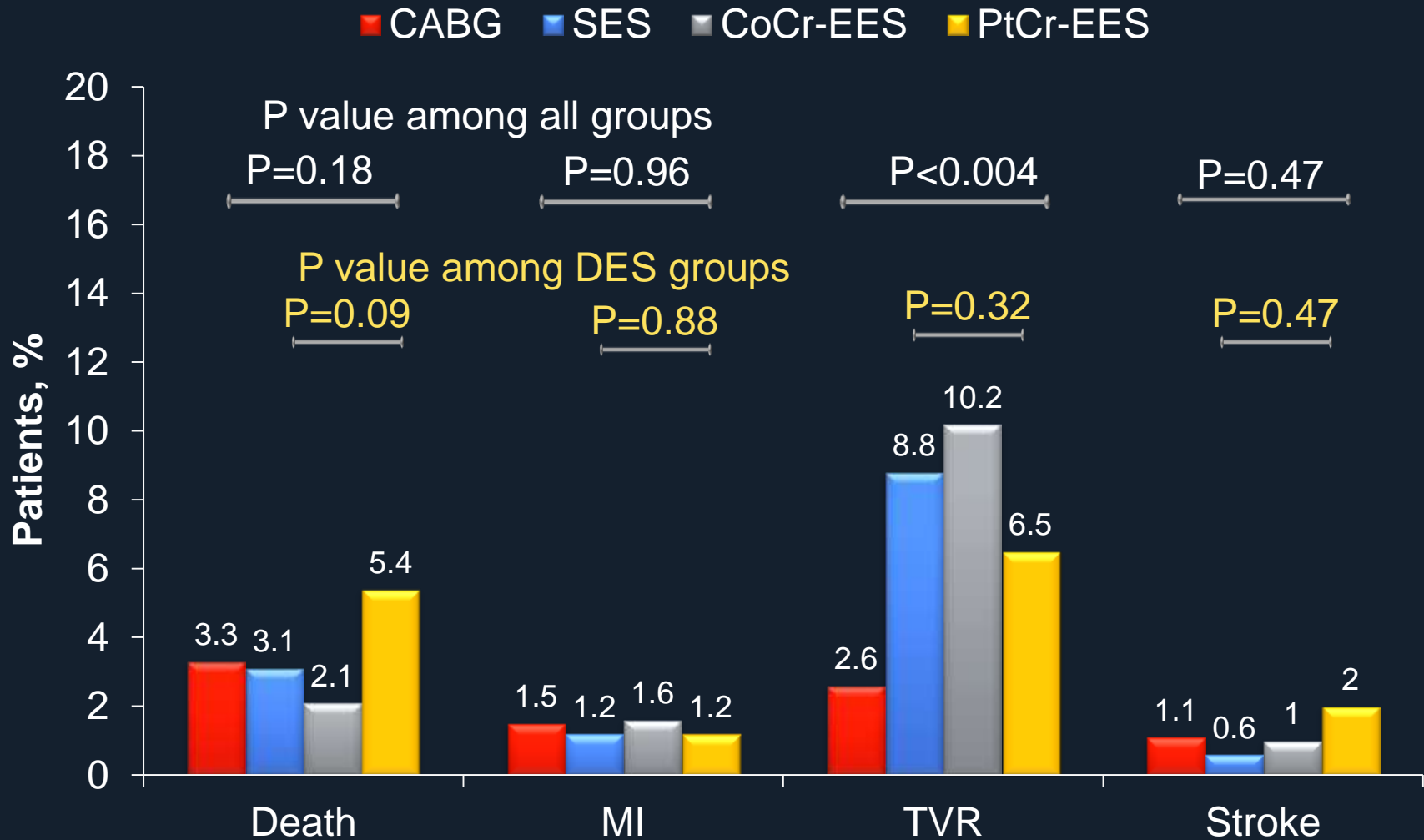
SES	327	321	298	292	284
CoCrEES	334	331	289	269	255
PtCrEES	300	287	263	188	114
CABG	272	263	260	258	255

MACCE: Death, MI, Stroke, or TVR

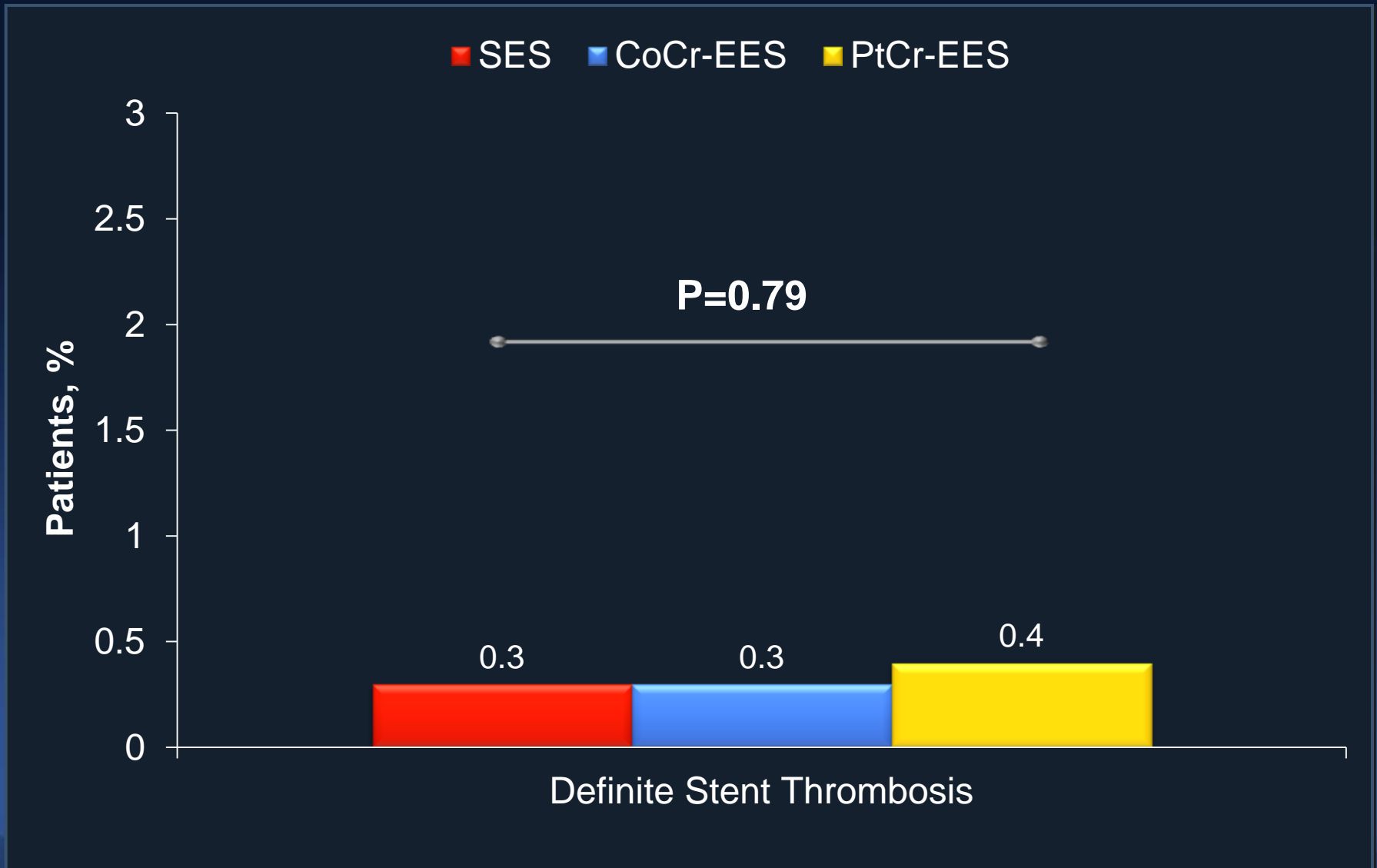


N. at risk	0	180	360	540	720
SES	327	318	295	288	280
CoCrEES	334	331	286	266	253
PtCrEES	300	284	259	183	112
CABG	272	258	254	252	249

Clinical Outcomes at 2 Years

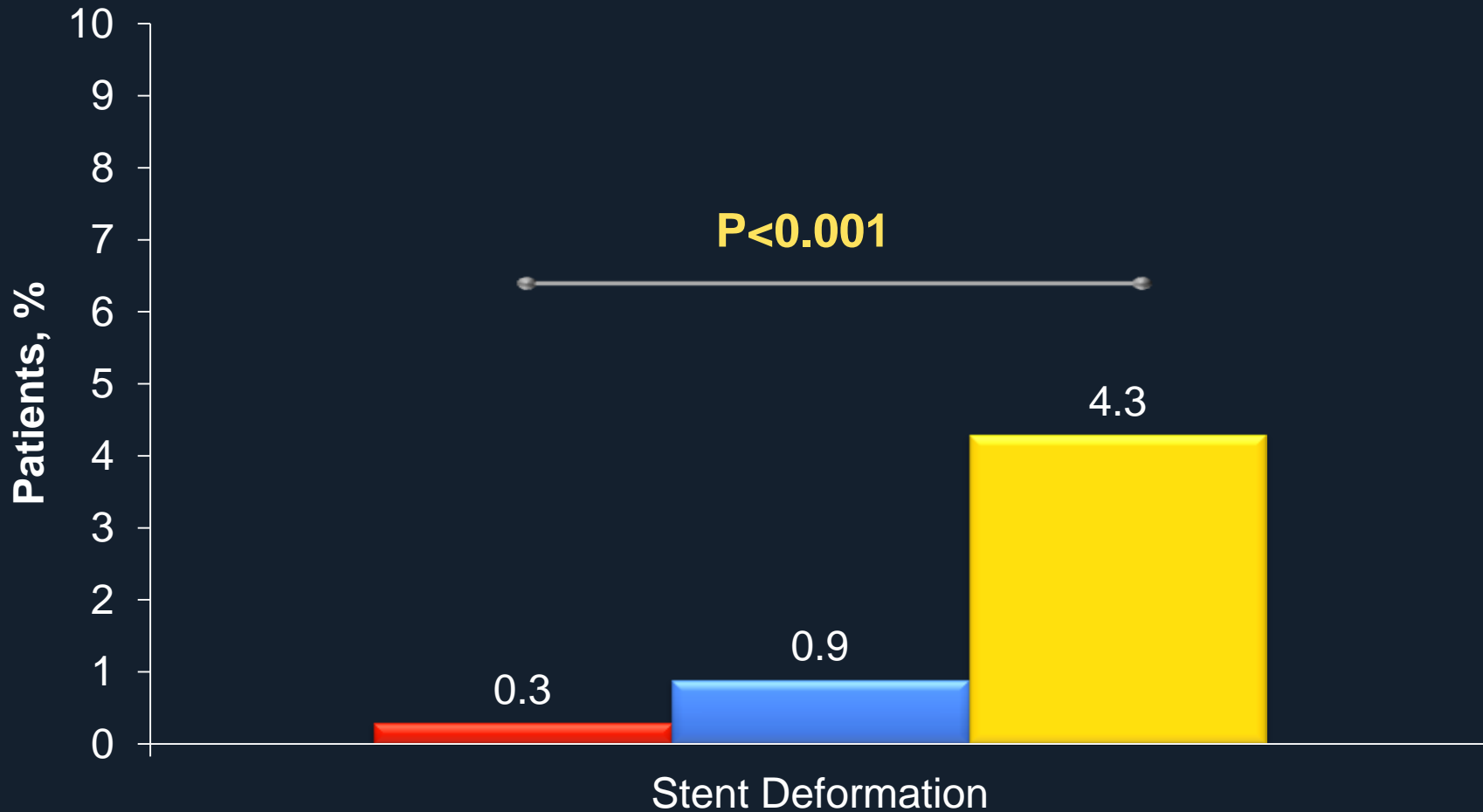


Definite Stent Thrombosis at 2 Years

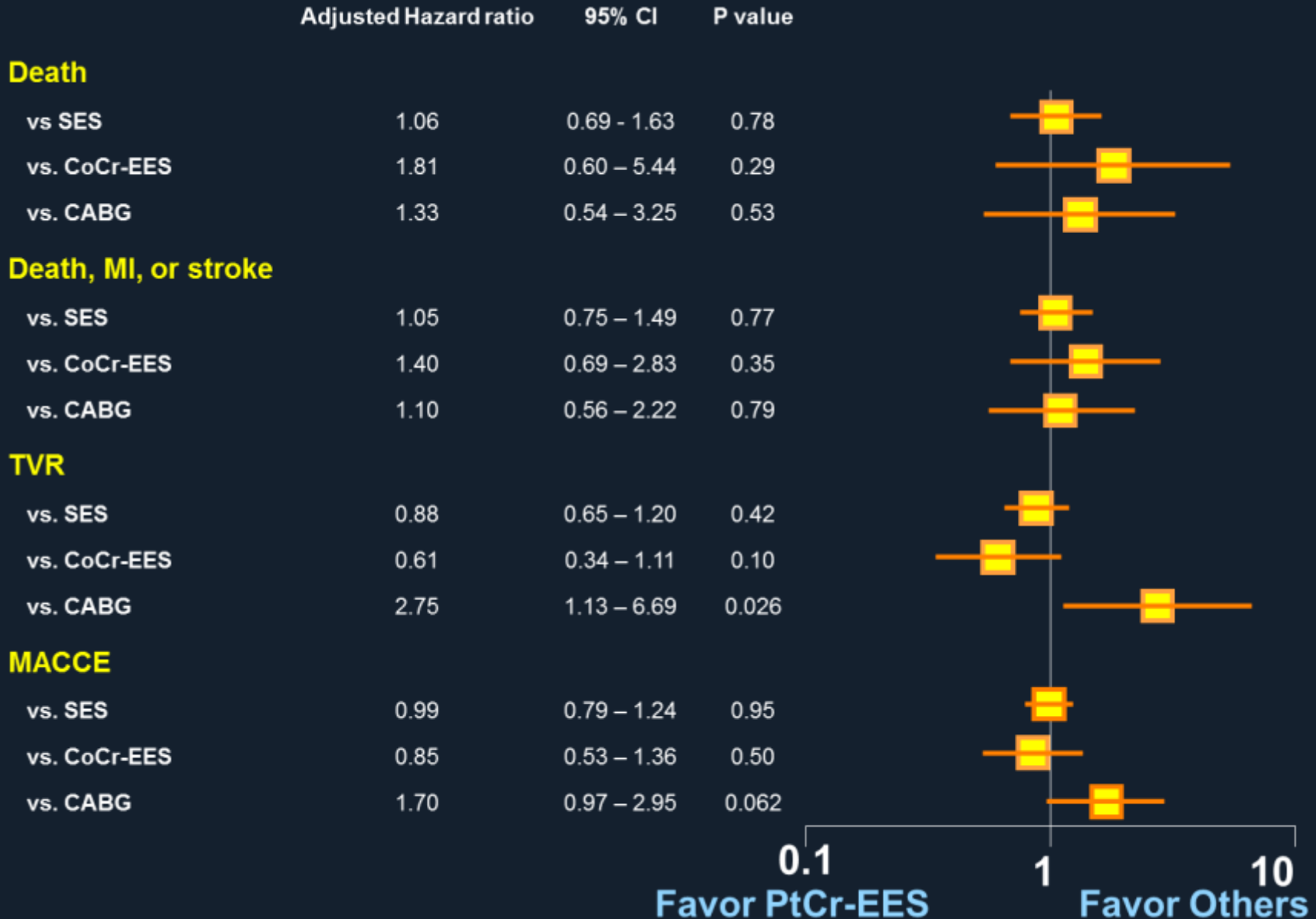


Stent Deformation

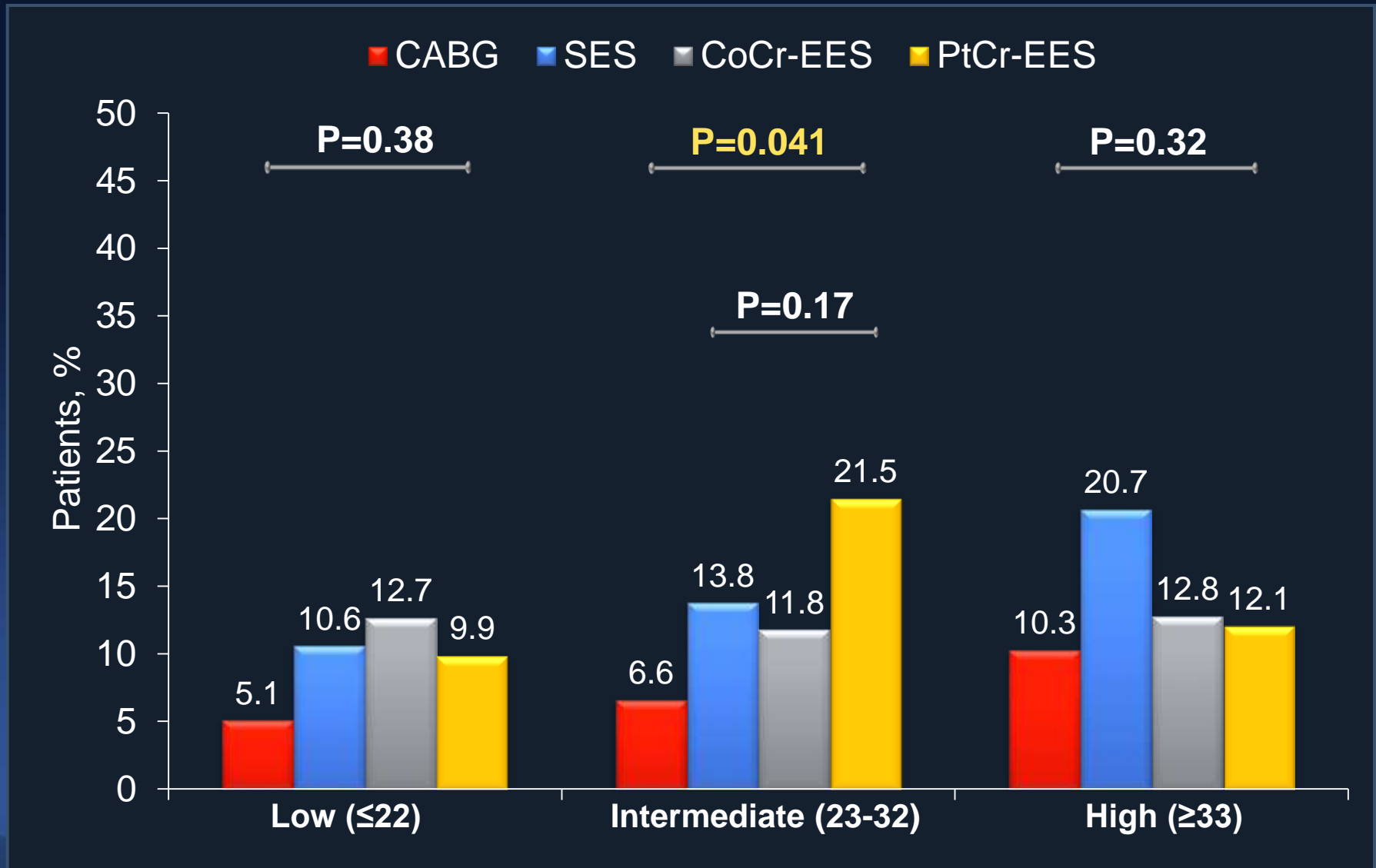
■ SES ■ CoCr-EES ■ PtCr-EES



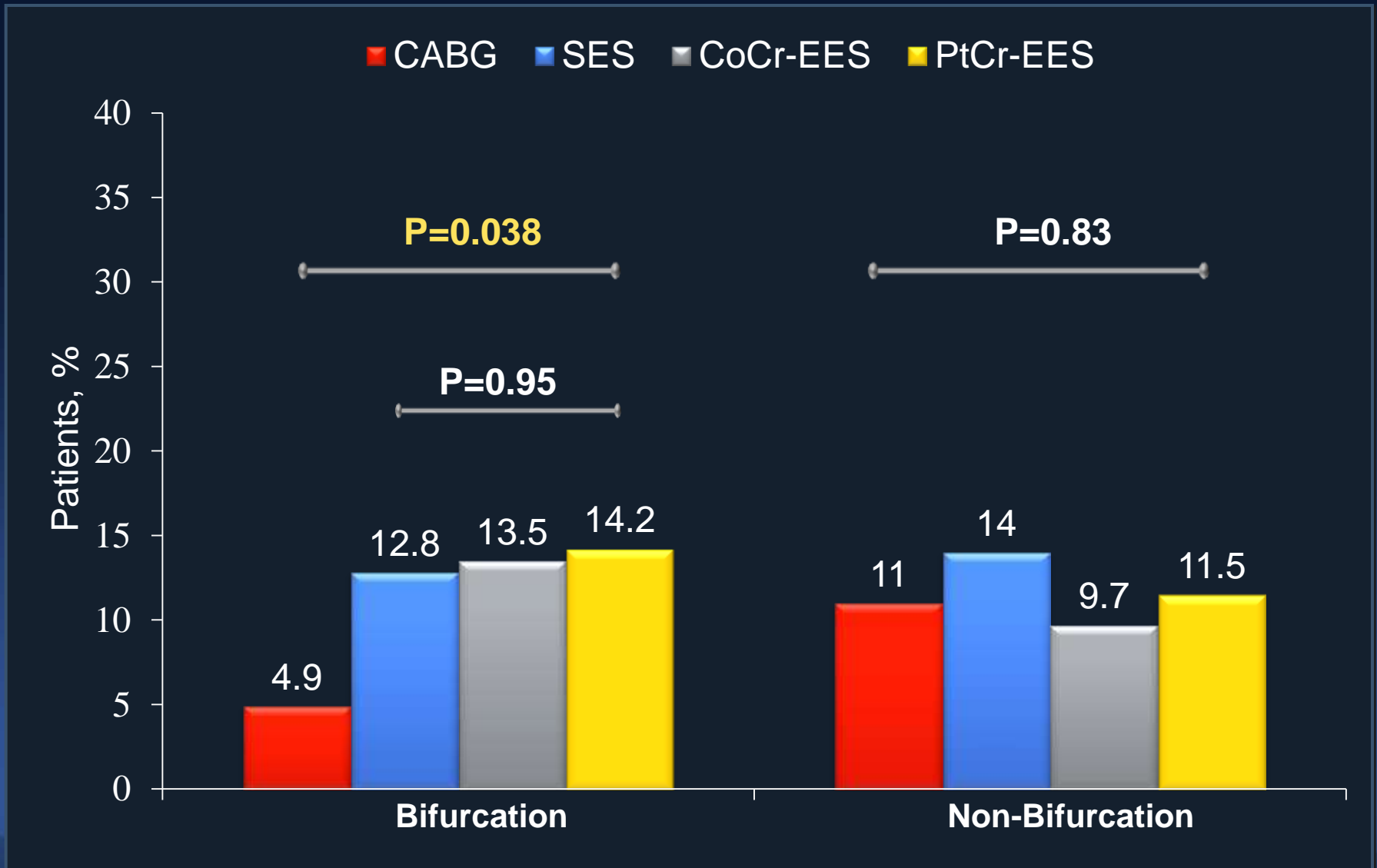
Adjusted HR for PtCr-EES



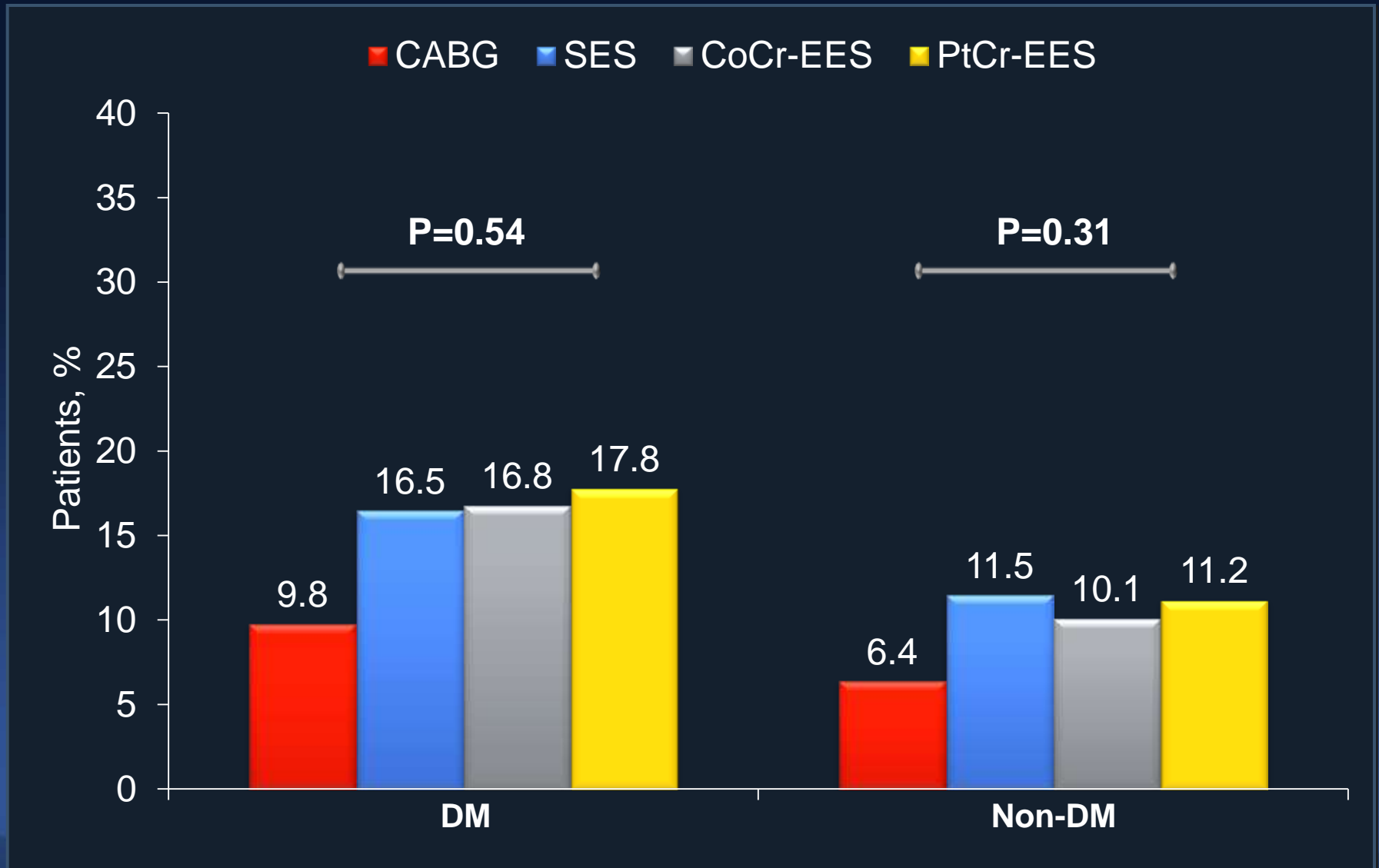
2-Y MACCE in SYNTAX Subgroup



2-Y MACCE in Bifurcation



2-Y MACCE in DM



2-Y MACCE in LM Subgroups

