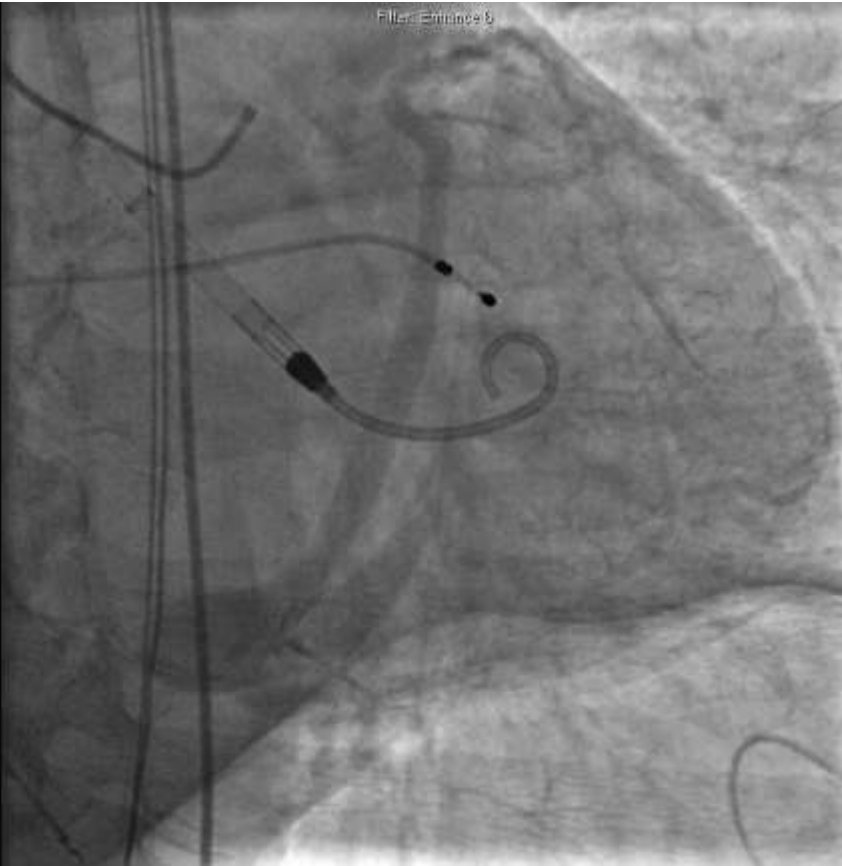
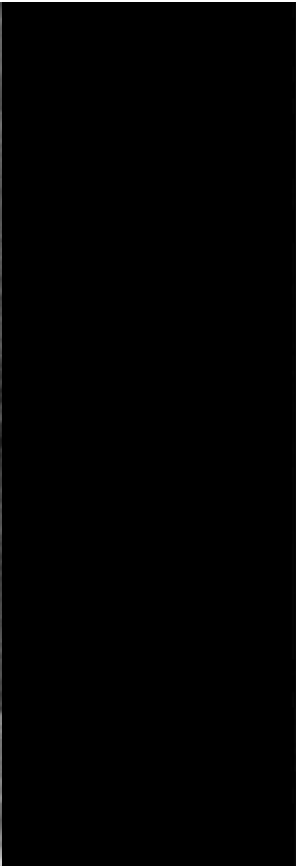
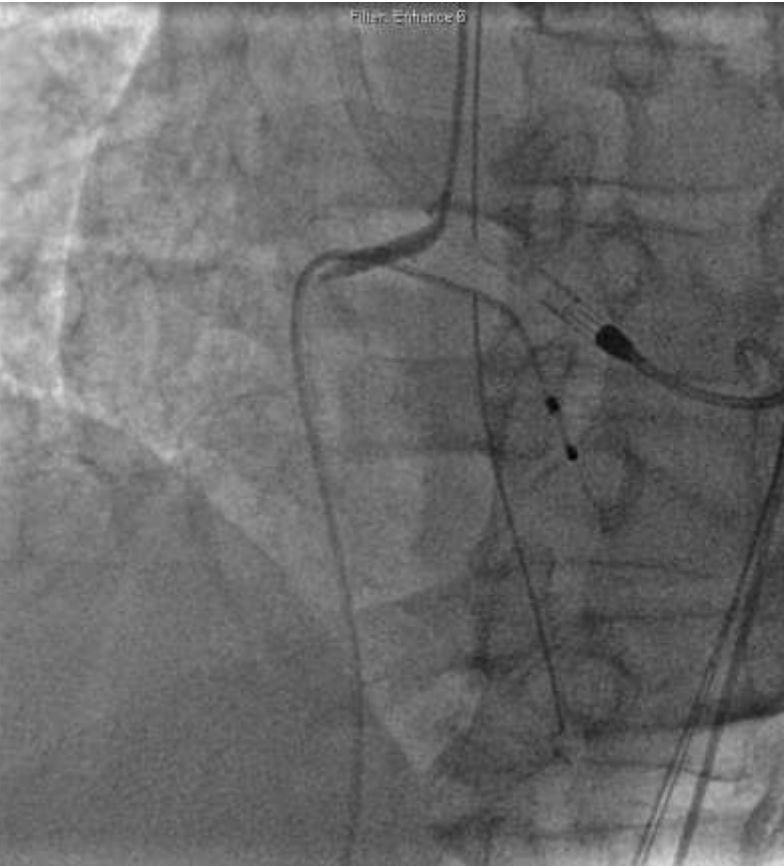
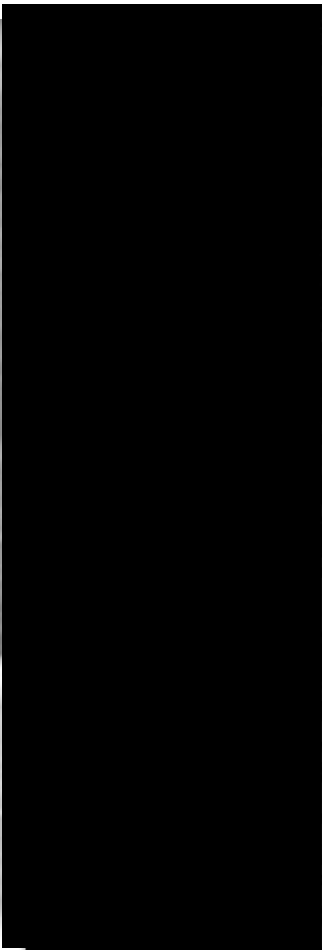
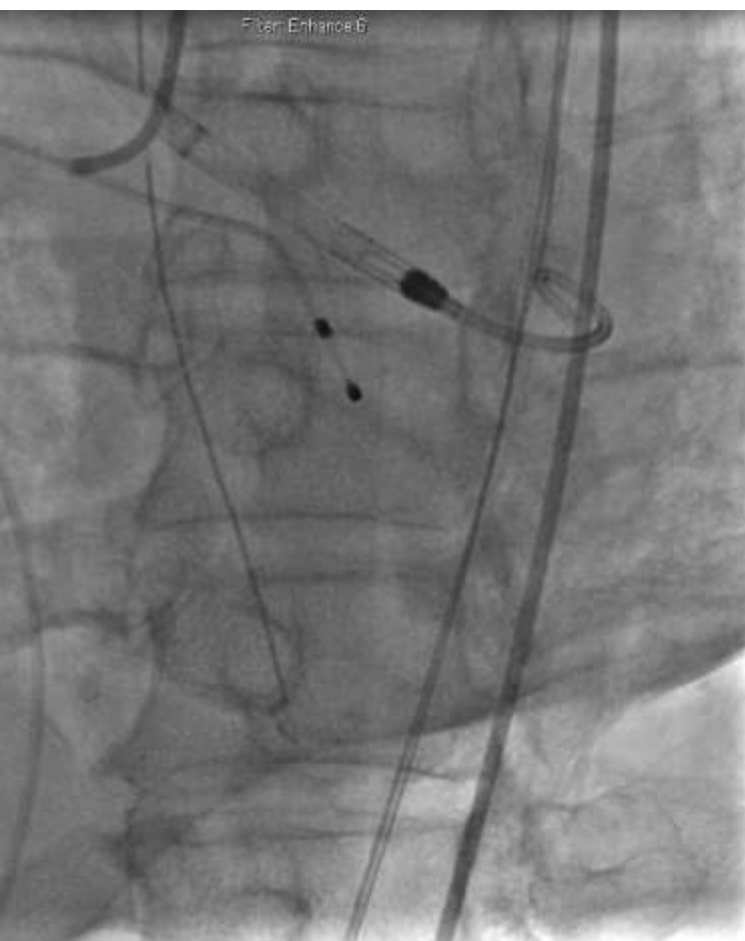


# For: Complete PCI The PRAMI and CvLPRIT Trials Clearly Support!

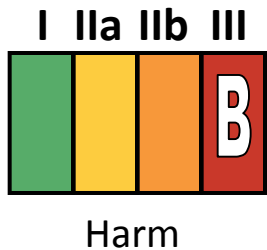
Michael S. Lee, MD, FSCAI  
Associate Professor  
UCLA Medical Center







# Primary PCI for STEMI



PCI **should not be performed** in a noninfarct artery at the time of primary PCI in patients with STEMI who are hemodynamically stable

# Controversy with PCI of Non-IRA

- Argument for PCI of non-IRA
  - 50% of patients have stenosis of  $\geq 50\%$  in a non-IRA.
  - Mortality at 30 days was increased by 50% in patients with obstructive non-IRA.
  - Therefore, revascularization non-IRA lesions should theoretically decrease mortality.
- Argument for Medical therapy
  - PCI may destabilize stable plaque

# Preventive Angioplasty in Mycocardial Infarction

## **PRAMI Trial**

Randomised multicenter single-blind trial  
conducted in 5 UK cardiac centres

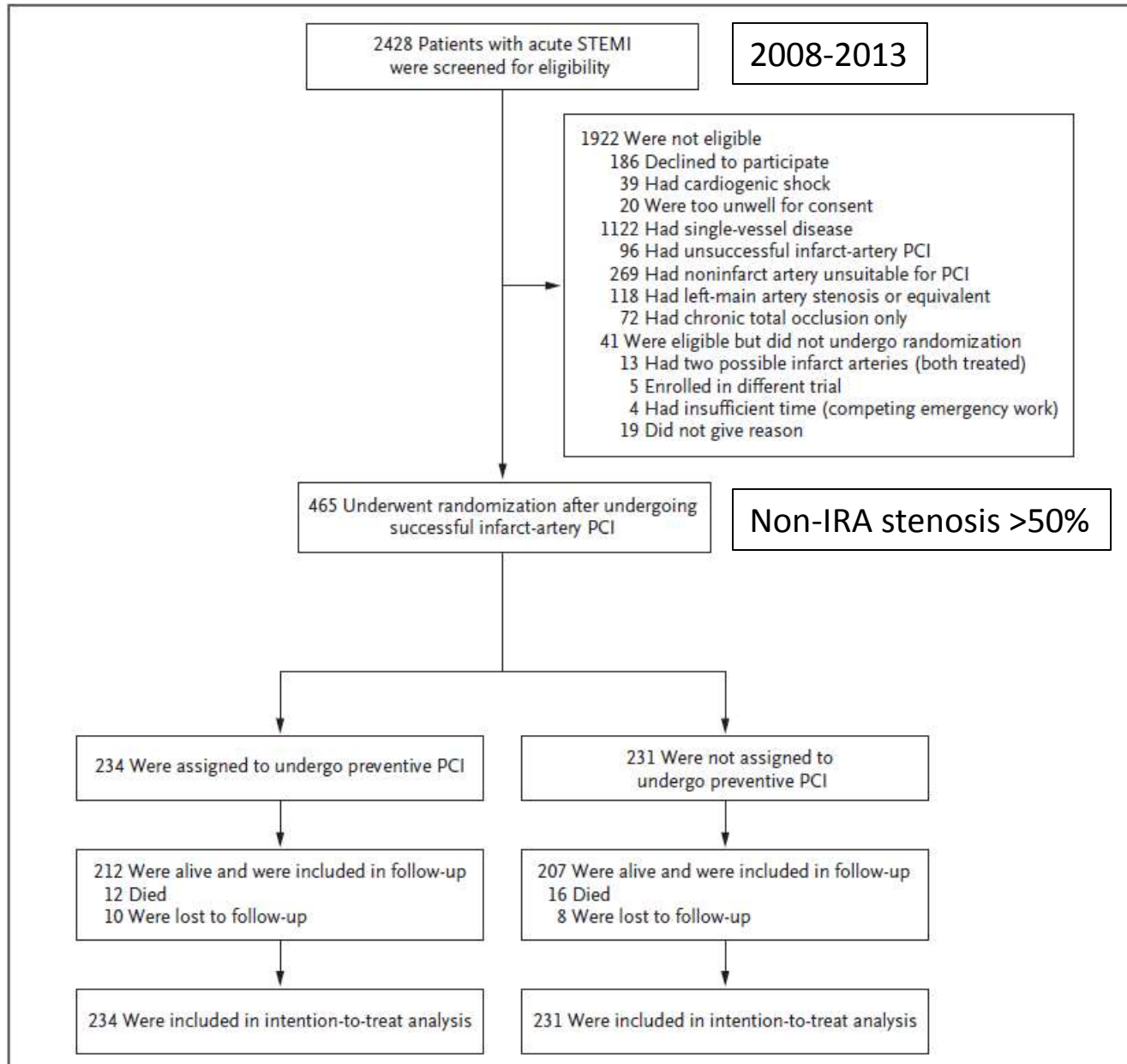
The NEW ENGLAND JOURNAL of MEDICINE

ORIGINAL ARTICLE

## Randomized Trial of Preventive Angioplasty in Myocardial Infarction

David S. Wald, M.D., Joan K. Morris, Ph.D., Nicholas J. Wald, F.R.S.,  
Alexander J. Chase, M.B., B.S., Ph.D., Richard J. Edwards, M.D.,  
Liam O. Hughes, M.D., Colin Berry, M.B., Ch.B., Ph.D.,  
and Keith G. Oldroyd, M.D., for the PRAMI Investigators\*

# PRAMI Trial



**Table 2. Details Regarding PCI and Medical Therapy at Discharge.\***

Variable	Preventive PCI (N = 234)	No Preventive PCI (N = 231)
<b>PCI</b>		
Infarct artery		
No. of stents per artery†	1.56±0.75	1.42±0.70
Stent length — mm	21.8±6.7	21.3±5.6
Stent diameter — mm	3.2±0.4	3.2±0.4
Stent type — no. (%)		
Bare-metal	86 (37)	96 (42)
Drug-eluting	147 (63)	135 (58)
No stenting‡	1 (<1)	0
Noninfarct artery		
No. of arteries treated per patient	1.36±0.77	NA
No. of stents per artery	1.29±0.53	NA
Stent length — mm	19.4±5.8	NA
Stent diameter — mm	3.1±0.9	NA
Stent type — no. (%)		
Bare-metal	58 (25)	NA
Drug-eluting	165 (71)	NA
No stenting§	11 (5)	NA
Use of glycoprotein IIb/IIIa inhibitor or bivalirudin — no. (%)		
Any	185 (79)	181 (78)
Glycoprotein IIb/IIIa inhibitor	178 (76)	176 (76)
Bivalirudin	7 (3)	5 (2)
<b>Medical therapy — no. (%)¶</b>		
Aspirin	233 (100)	229 (100)
Clopidogrel, prasugrel, or ticagrelor	234 (100)	229 (100)
Statin	222 (95)	223 (97)
Beta-blocker	207 (88)	210 (92)
ACE inhibitor or angiotensin-receptor blocker	218 (93)	209 (91)
Calcium-channel blocker	28 (12)	26 (11)
Nitrate	38 (16)	45 (20)

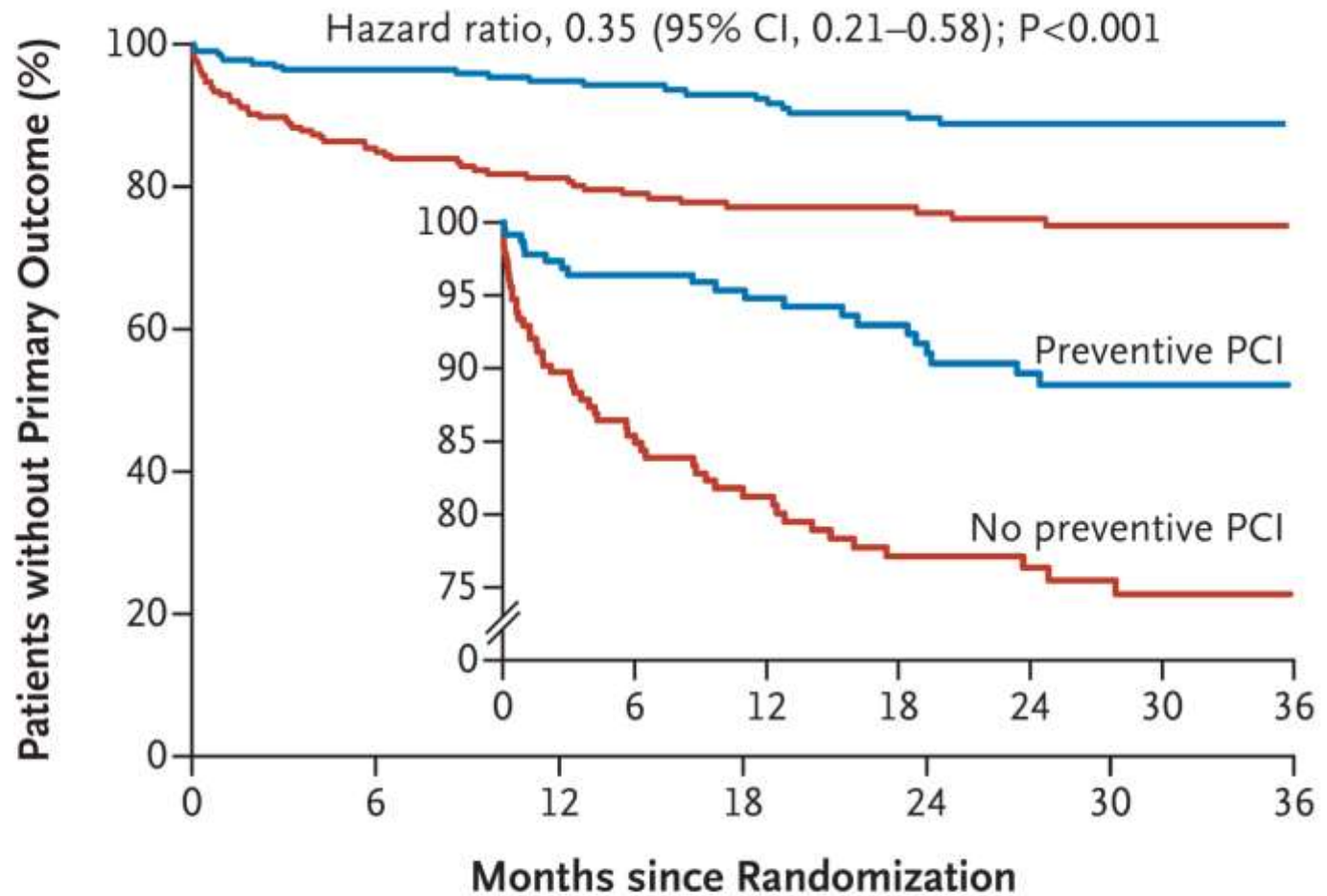


# PRAMI Trial

**Table 3. Prespecified Clinical Outcomes.\***

Outcome	Preventive PCI (N=234)	No Preventive PCI (N=231)	Hazard Ratio (95% CI)	P Value
	<i>no. of events</i>			
<b>Primary outcome</b>				
Death from cardiac causes, nonfatal myocardial infarction, or refractory angina†	21	53	0.35 (0.21–0.58)	<0.001
Death from cardiac causes or nonfatal myocardial infarction†	11	27	0.36 (0.18–0.73)	0.004
Death from cardiac causes	4	10	0.34 (0.11–1.08)	0.07
Nonfatal myocardial infarction	7	20	0.32 (0.13–0.75)	0.009
Refractory angina	12	30	0.35 (0.18–0.69)	0.002
<b>Secondary outcomes</b>				
Death from noncardiac causes	8	6	1.10 (0.38–3.18)	0.86
Repeat revascularization	16	46	0.30 (0.17–0.56)	<0.001

# PRAMI Trial



## No. at Risk

Preventive PCI	234	196	166	146	118	89	67
No preventive PCI	231	168	144	122	96	74	50

# PRAMI Trial Conclusions

- In STEMI and multivessel CAD, preventive PCI of non-IRA with major stenoses reduced the risk of adverse cardiac events
- The timing of preventive PCI (immediate vs. delayed) needs to be clarified.
- Included non-IRA stenosis >50% (?role of FFR)

# CvLPRIT

## ORIGINAL INVESTIGATIONS

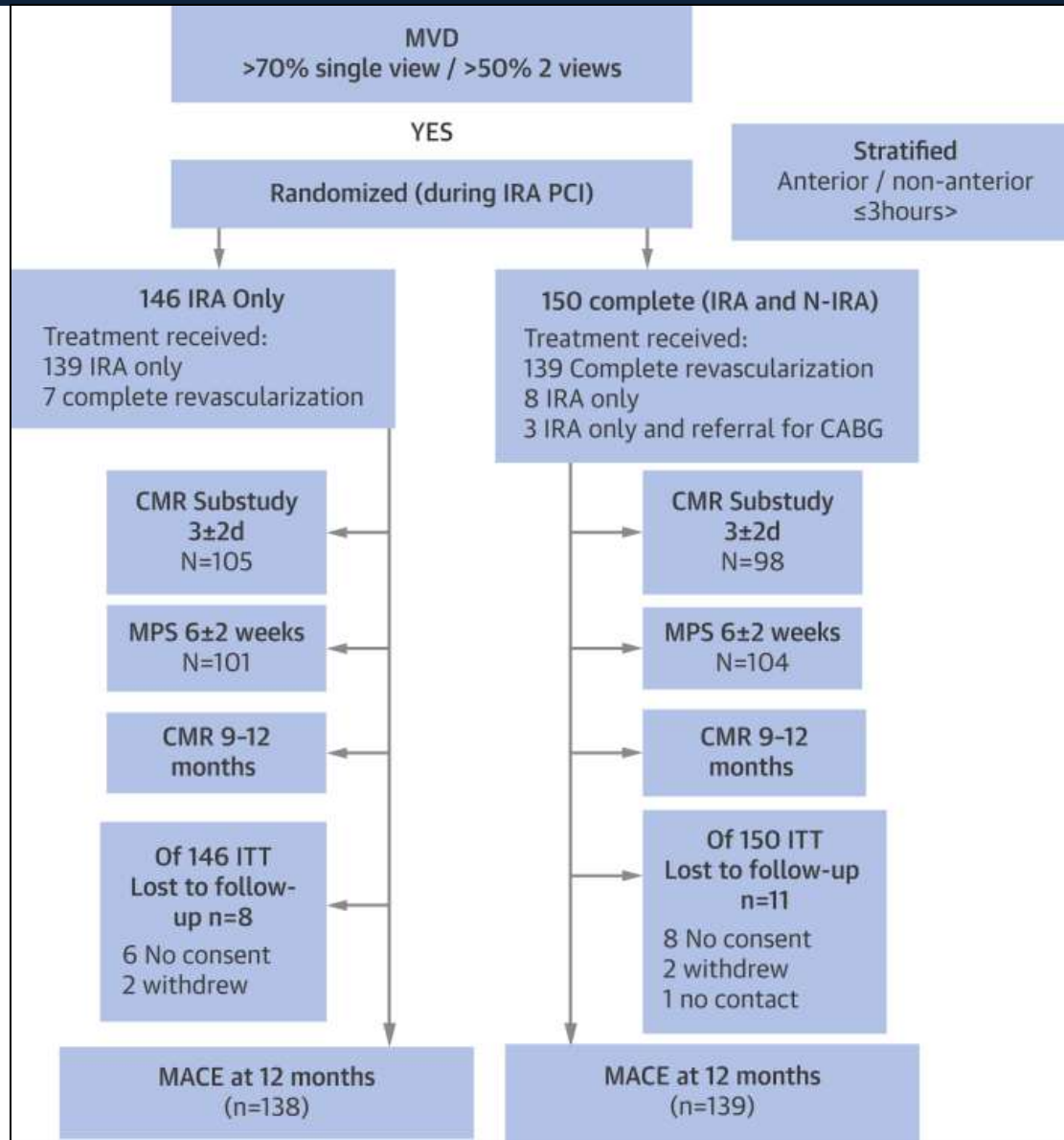
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# Randomized Trial of Complete Versus Lesion-Only Revascularization in Patients Undergoing Primary Percutaneous Coronary Intervention for STEMI and Multivessel Disease

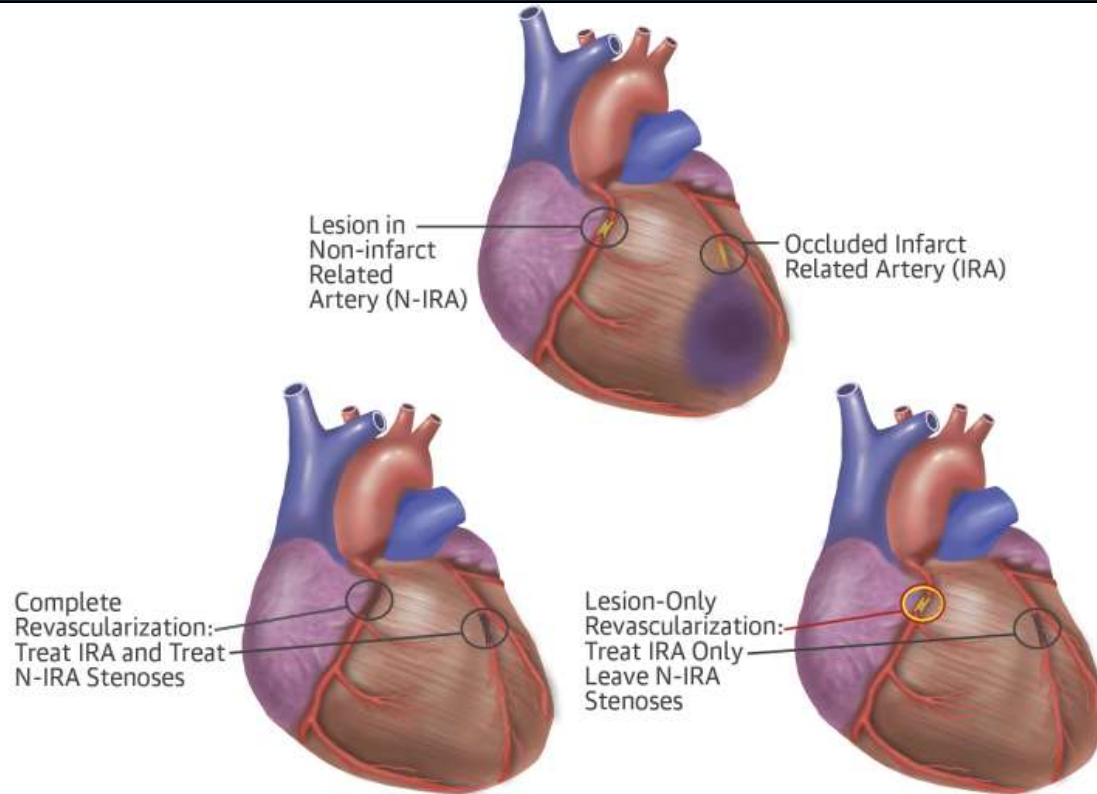
## The CvLPRIT Trial

Anthony H. Gershlick, MBBS,\* Jamal Nasir Khan, MB ChB,\* Damian J. Kelly, MB ChB, MD,†  
John P. Greenwood, MB ChB, PhD,‡§ Thiagarajah Sasikaran, BSc, PhD,|| Nick Curzen, BM, PhD,¶  
Daniel J. Blackman, MD,§ Miles Dalby, MBBS, MD,# Kathryn L. Fairbrother, BA,\*\* Winston Banya, MSc,††  
Duolao Wang, PhD,‡‡ Marcus Flather, MB BS,§§ Simon L. Hetherington, MB ChB, MD,|||  
Andrew D. Kelion, BM BCh, DM,¶¶ Suneel Talwar, MB BS, MD,## Mark Gunning, MD,\*\*\* Roger Hall, MD,§§  
Howard Swanton, MB BChir, MD,††† Gerry P. McCann, MB ChB, MD\*

# CvLPRIT



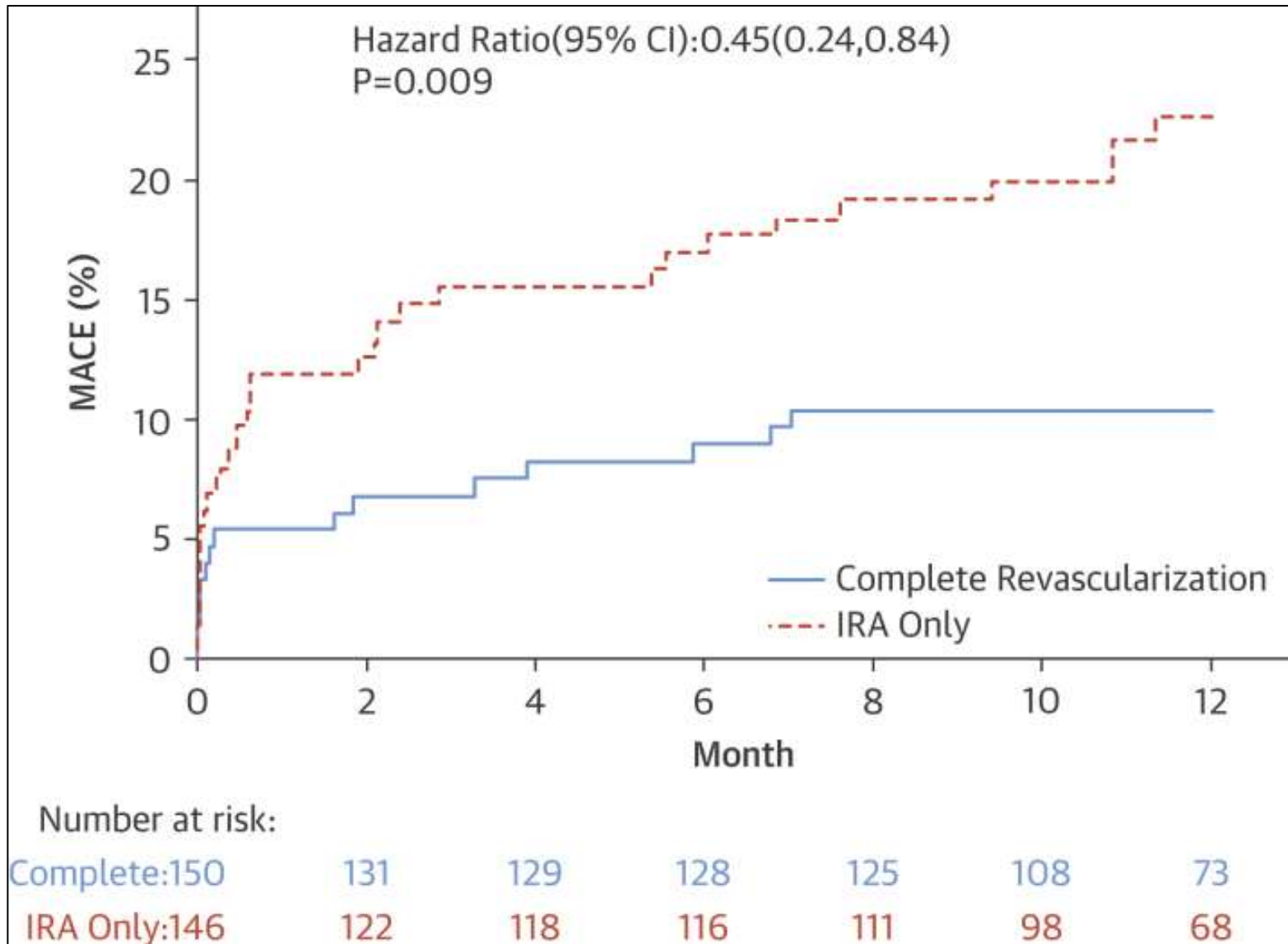
# CvLPRIT



Event	N = 150 (%)	N = 146 (%)	HR (95%)	P
Total MACE	15 (10.0)	31 (21.2)	0.45 (0.24, 0.84)	0.009
Mortality	2 (1.3)	6 (4.1)	0.32 (0.06, 1.60)	0.14
Recurrent MI	2 (1.3)	4 (2.7)	0.48 (0.09, 2.62)	0.39
Heart Failure	4 (2.7)	9 (6.2)	0.43 (0.13, 1.39)	0.14
Repeat Revascularization	7 (4.7)	12 (8.2)	0.55 (0.22, 1.39)	0.2



# CvLPRIT



# CvLPRIT Conclusions

- In STEMI and multivessel CAD, complete revascularization lowered the rate of major adverse cardiac events
- Larger trials are needed to confirm this result and specifically address whether this strategy is associated with improved survival



# Conclusions

- Consider complete revascularization if borderline shock
  - Low BP, PCI is feasible
- If stable, defer non-IRA PCI especially if CKD, complex lesion, time of day/night



## John Wooden

*“Failing to prepare is preparing to fail.”*



***Thank You!***

