Managing Ischemic Heart Disease in 2023: A Review of the Evidence

Brett Duncan, MD

Assistant Professor, Division of Cardiothoracic Surgery, Department of Surgery, UNMC

2023 HEART AND VASCULAR CONFERENCE: STATE OF THE HEART

University of Nebraska Medical Center

Nebraska Medicine

Disclosures

None

Ischemic Heart Disease in 2023

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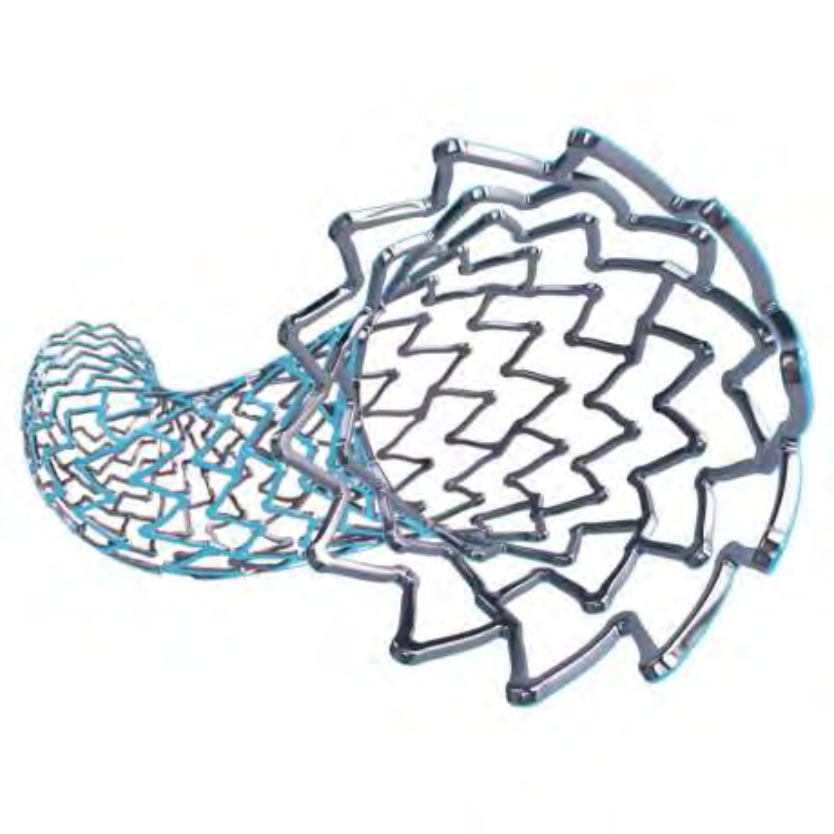
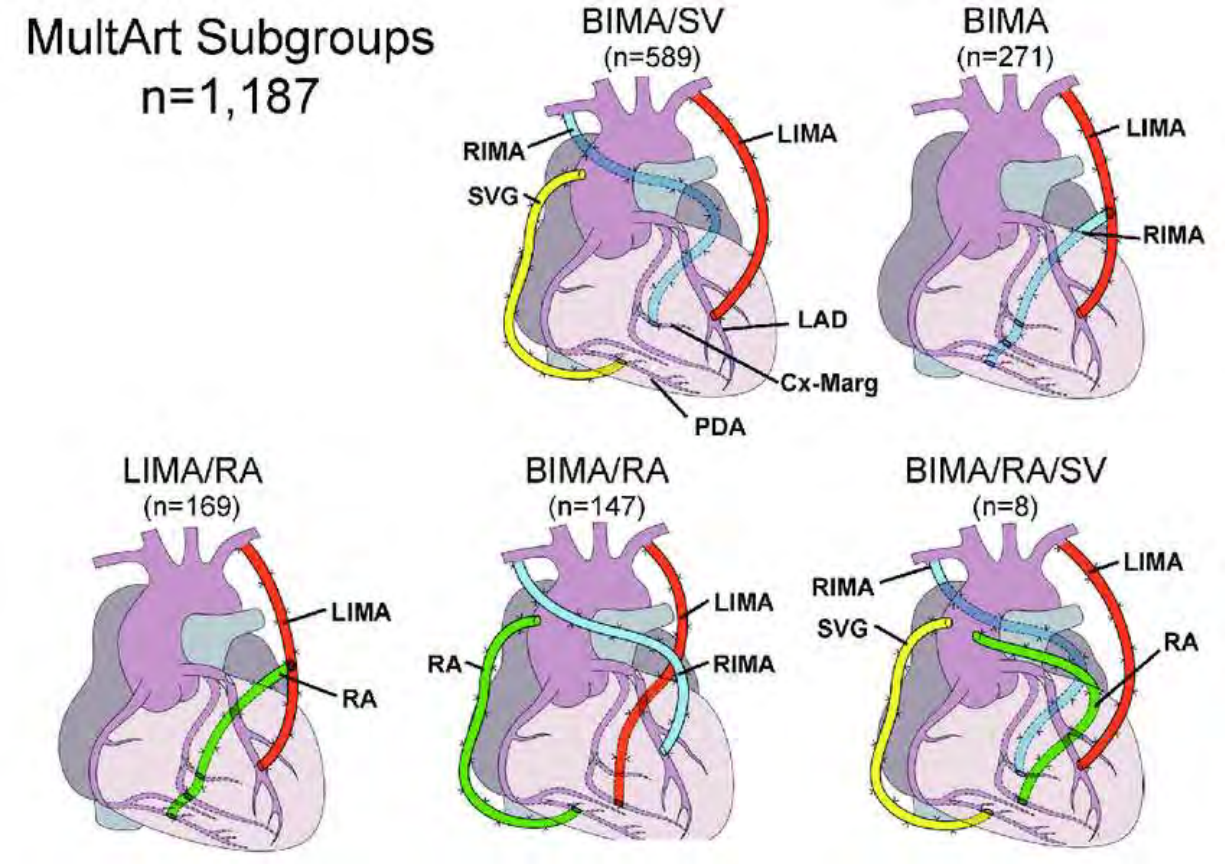
MEGATRON Stent – 1st US implant at UNMC



Ischemic Heart Disease in 2023

Multi-arterial grafting



Ischemic Heart Disease in 2023

The New York Times

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Drug therapy alone may save lives as effectively as bypass or stenting procedures, a large federal study showed.

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By Michael Nedelman, CNN

Updated 5:51 PM EST, Sat November 16, 2019

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Study Finds Limited Benefits of Stent Use for Millions With Heart Disease

Drugs and healthier lifestyle can be as effective for patients with stable coronary artery disease, research shows

ISCHEMIA Trial

ISCHEMIA Trial

The NEW ENGLAND JOURNAL of MEDICINE

ESTABLISHED IN 1812 APRIL 9, 2020 VOL. 382 NO. 15

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Revascularization Guidelines

ACCF/AHA (American) Guidelines 2011

Revascularization to improve survival		CABG		PCI	
		COR	LOE	COR	LOE
Left main disease	SYNTAX ≤22	I	B	IIa	B
	SYNTAX 23-32			IIb	B
	SYNTAX >32			III*	B
3-vessel disease (with or without LAD disease)	SYNTAX ≤22	I	B	IIb	B
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	Without extensive ischemia	IIb	C		
1-vessel LAD disease		IIa†	B	IIb	B
1-vessel non-LAD disease		III	B	III	B

Revascularization to improve symptoms	CABG		PCI	
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Unacceptable angina despite OMT, with ≥1 significant stenosis‡	I	A	I	A

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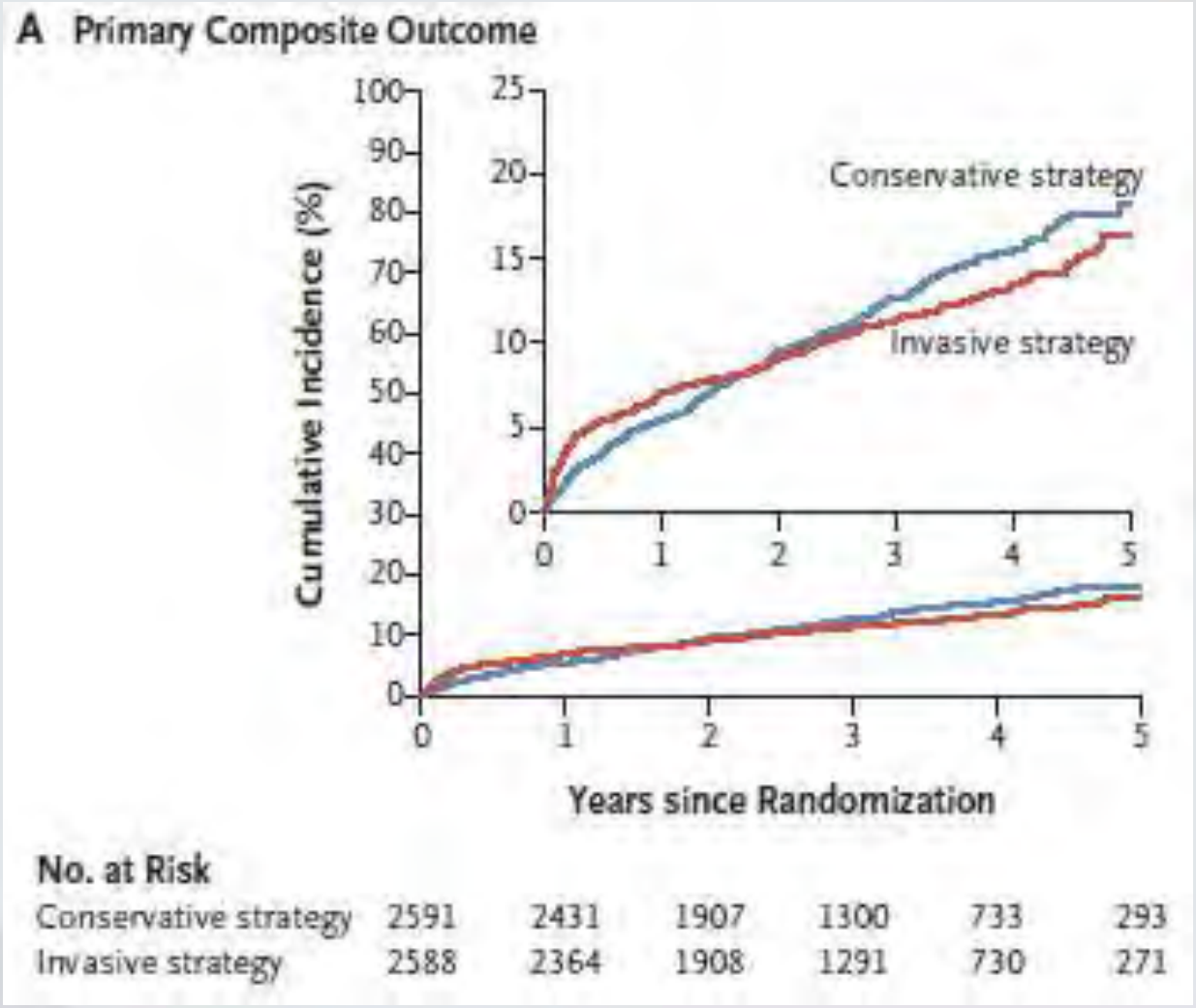
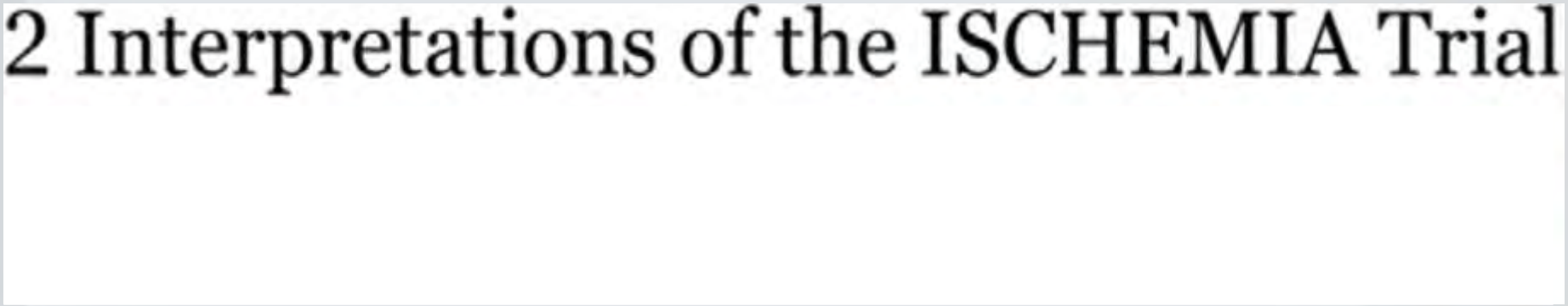
ISCHEMIA Trial - Design

The trial was designed to address whether an initial invasive strategy (angiogram followed by, if necessary, routine revascularization with PCI or CABG) plus OMT versus an initial conservative strategy of OMT alone without angiogram reduces the rates of a composite of death from cardiovascular causes, MI, or hospitalization for unstable angina, heart failure, or resuscitated cardiac arrest

ISCHEMIA Trial - Outcomes



ISCHEMIA Trial



Ruel et al. J Thorac Cardiovasc Surg 2021;162:90-9

ISCHEMIA Trial

2 Interpretations of the ISCHEMIA Trial

COMMON INTERPRETATION

"ISCHEMIA: PCI, Surgery Strike Out vs Meds"

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CORRECT INTERPRETATION

A strategy of waiting to perform coronary angiography in patients with moderate to severe ischemia is as good as proceeding right away with it, at 3.2 years

COMMON INTERPRETATION

"ISCHEMIA: PCI, Surgery Strike Out vs Meds"

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Is ISCHEMIA a CABG/PCI vs medical therapy trial?

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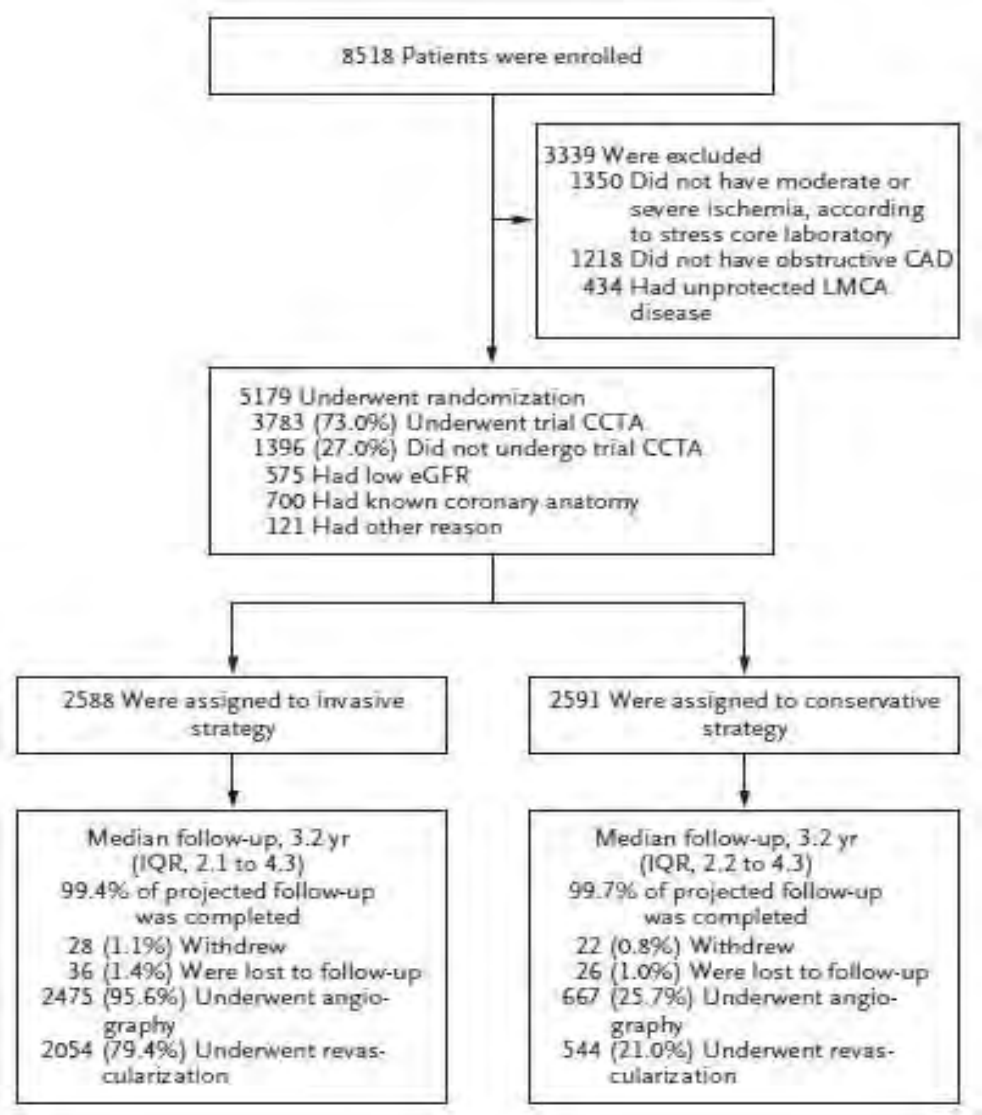
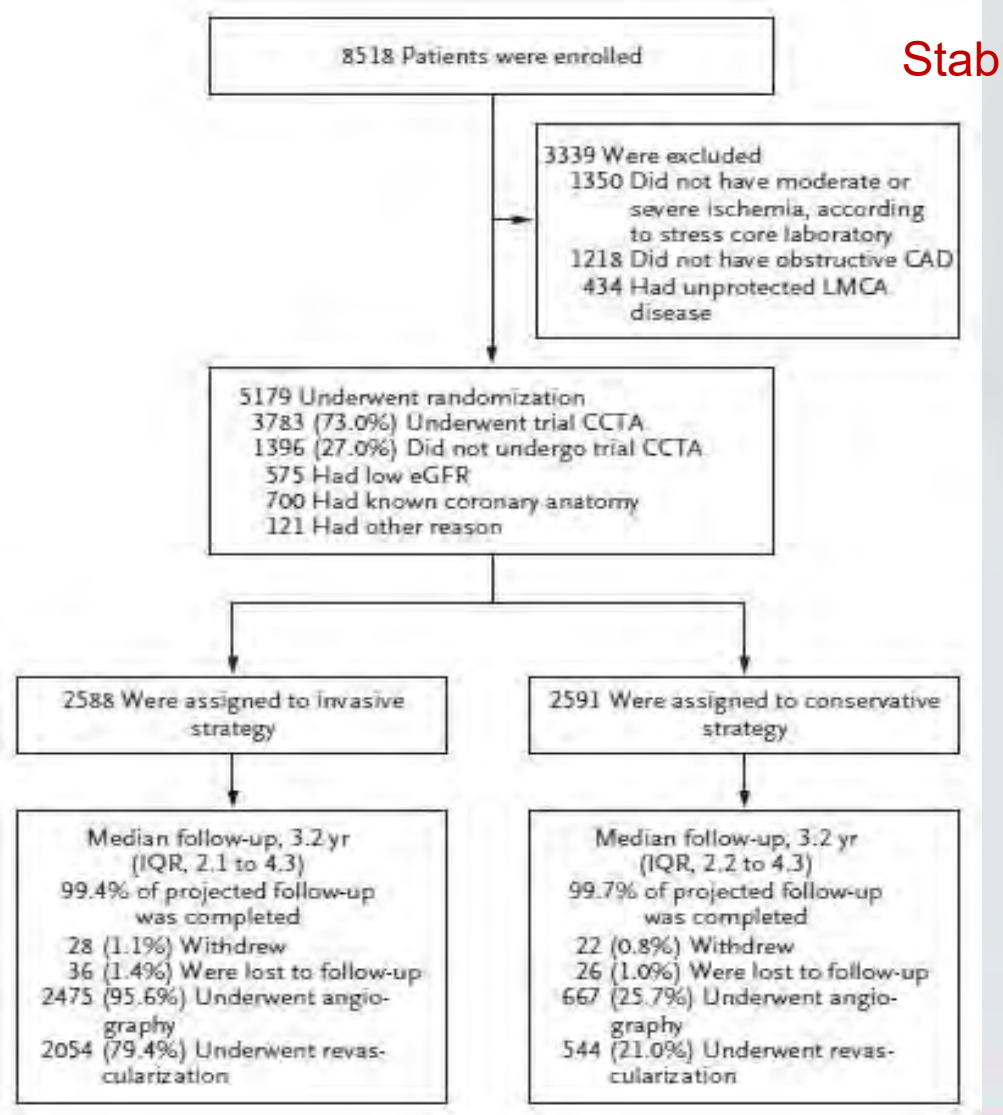


ISCHEMIA Trial

Stable coronary disease



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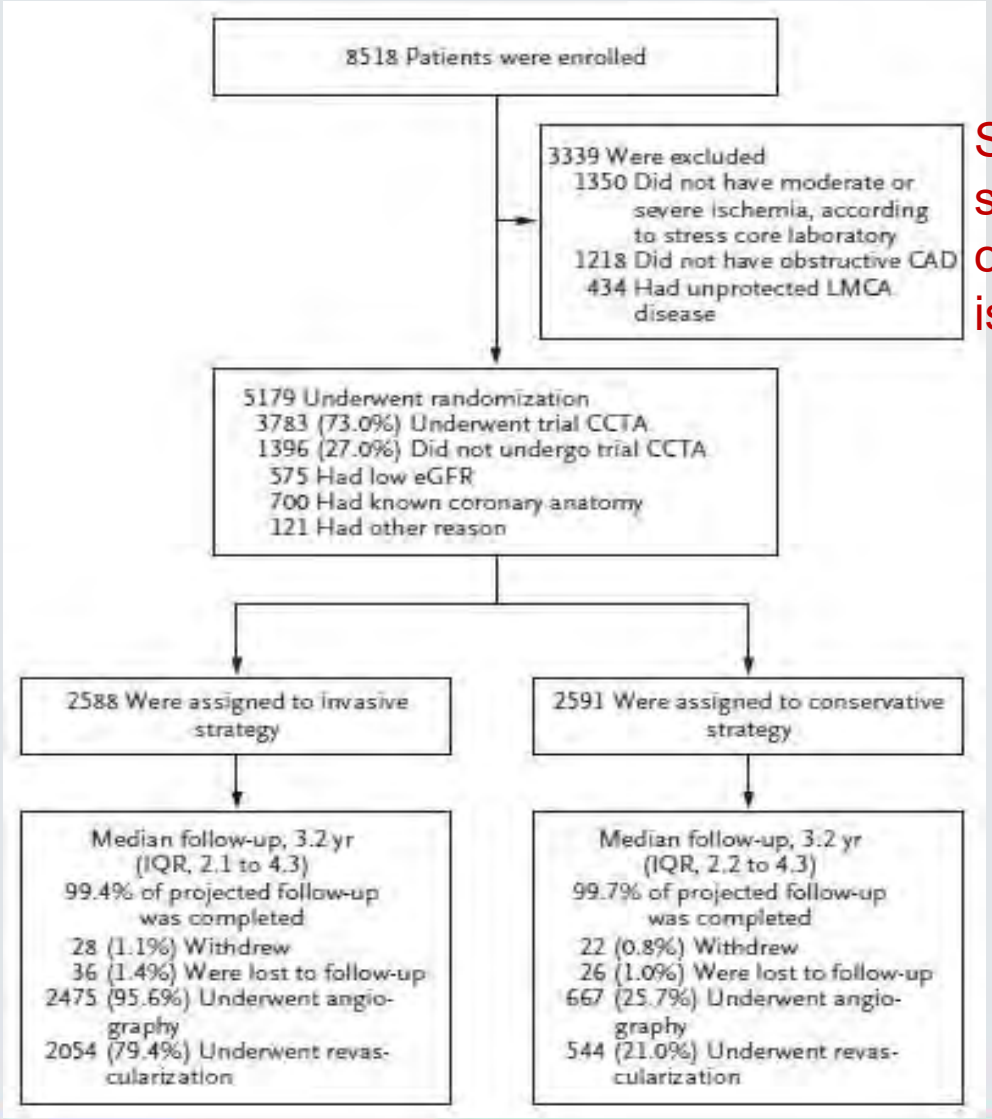
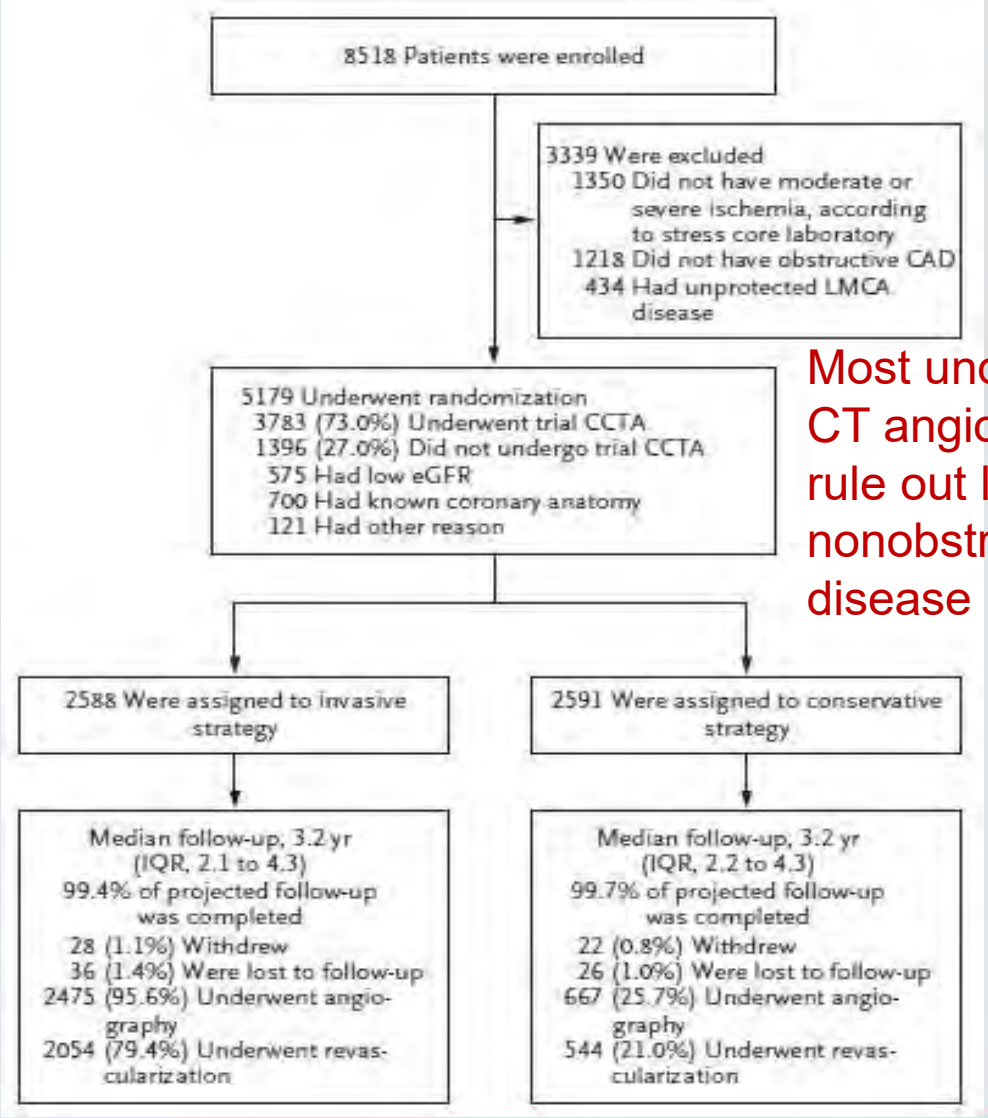


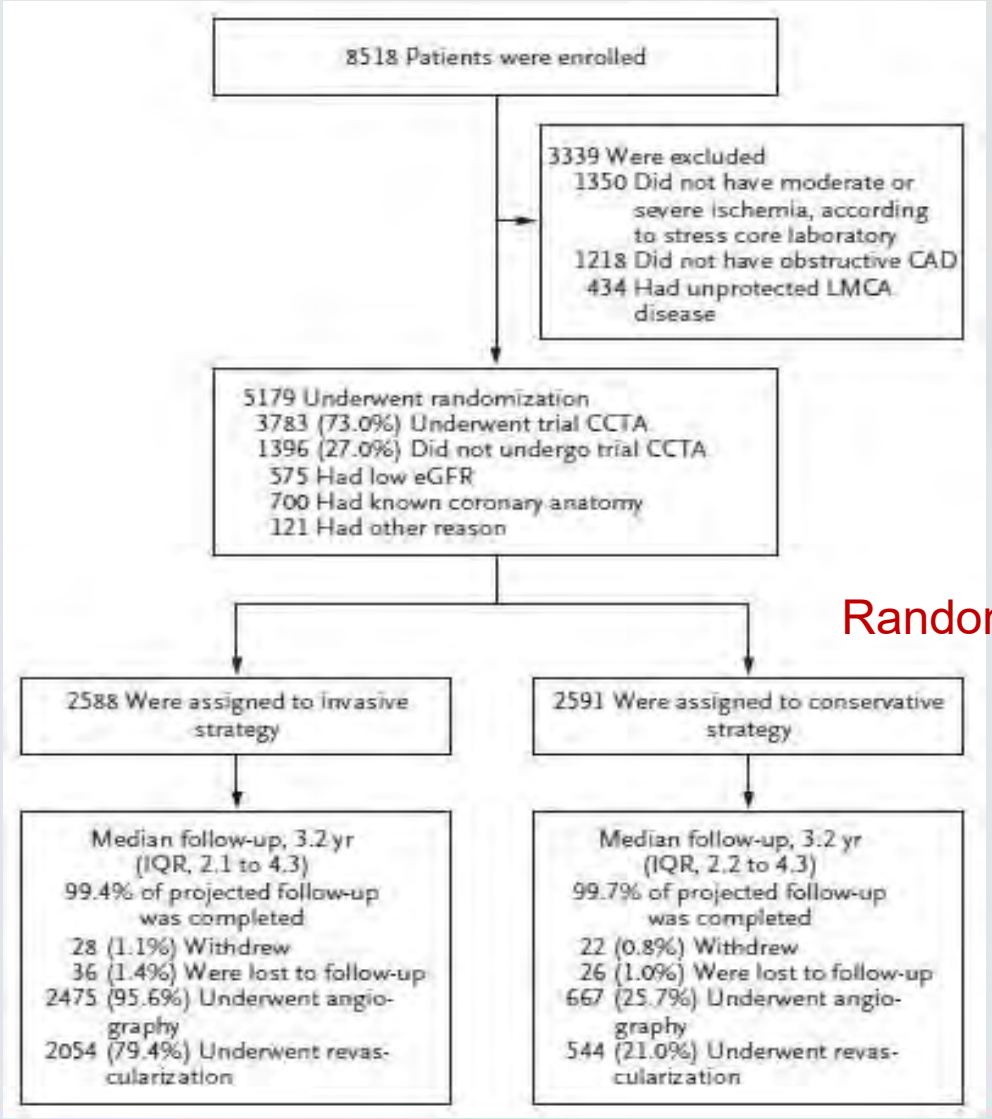
Stress testing showed moderate or severe reversible ischemia

ISCHEMIA Trial



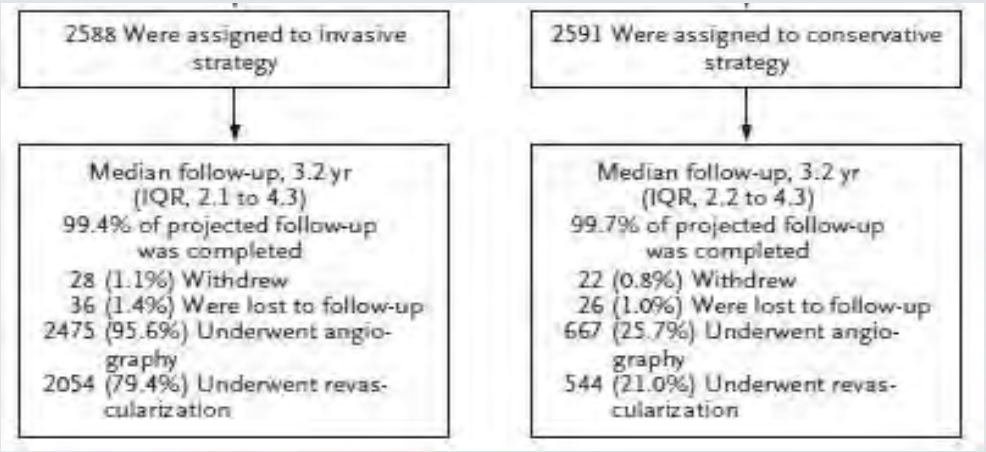
Most underwent coronary CT angiography to rule out left main or nonobstructive coronary disease

ISCHEMIA Trial



Randomization

ISCHEMIA Trial



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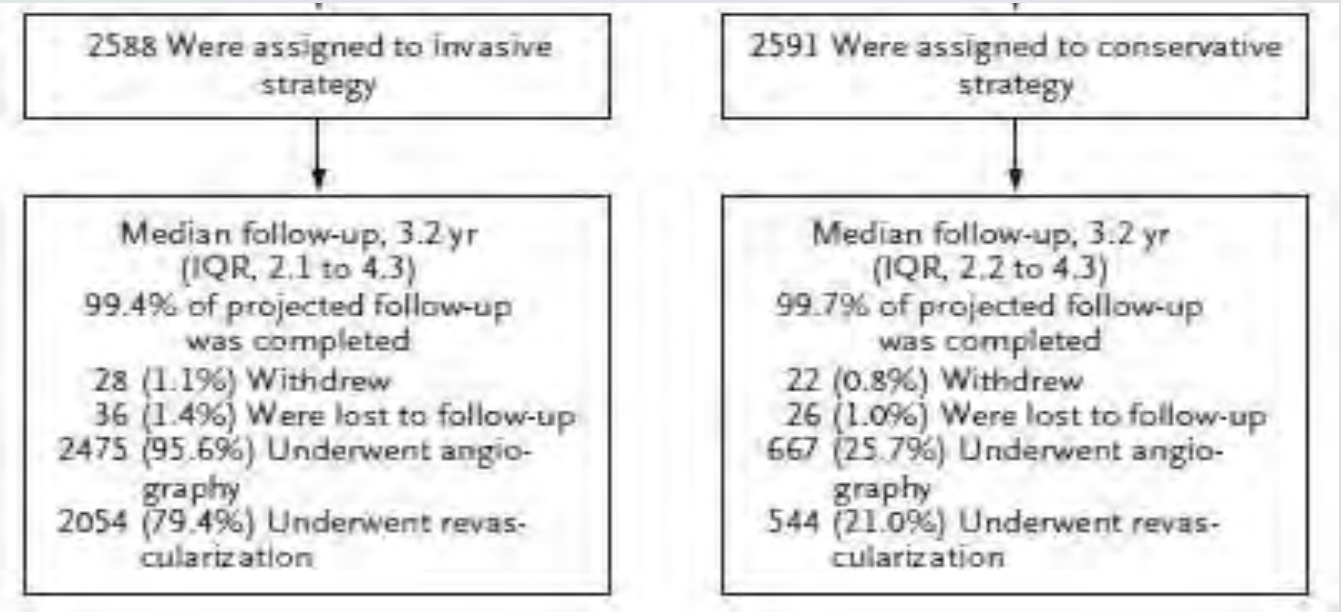

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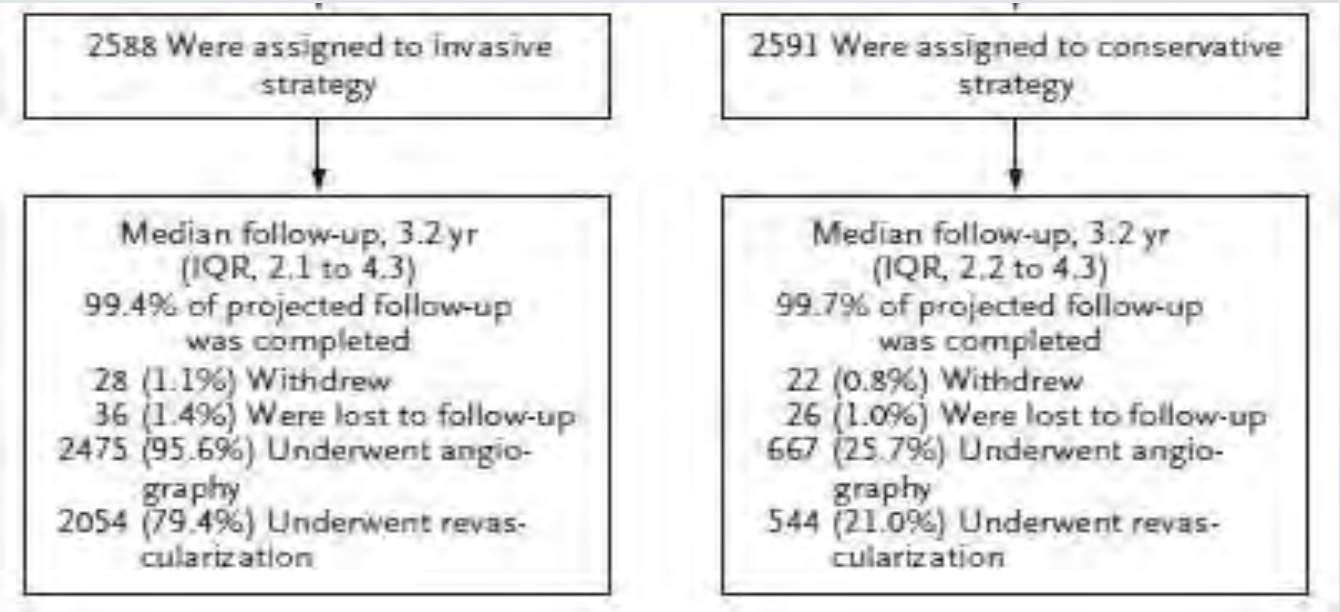
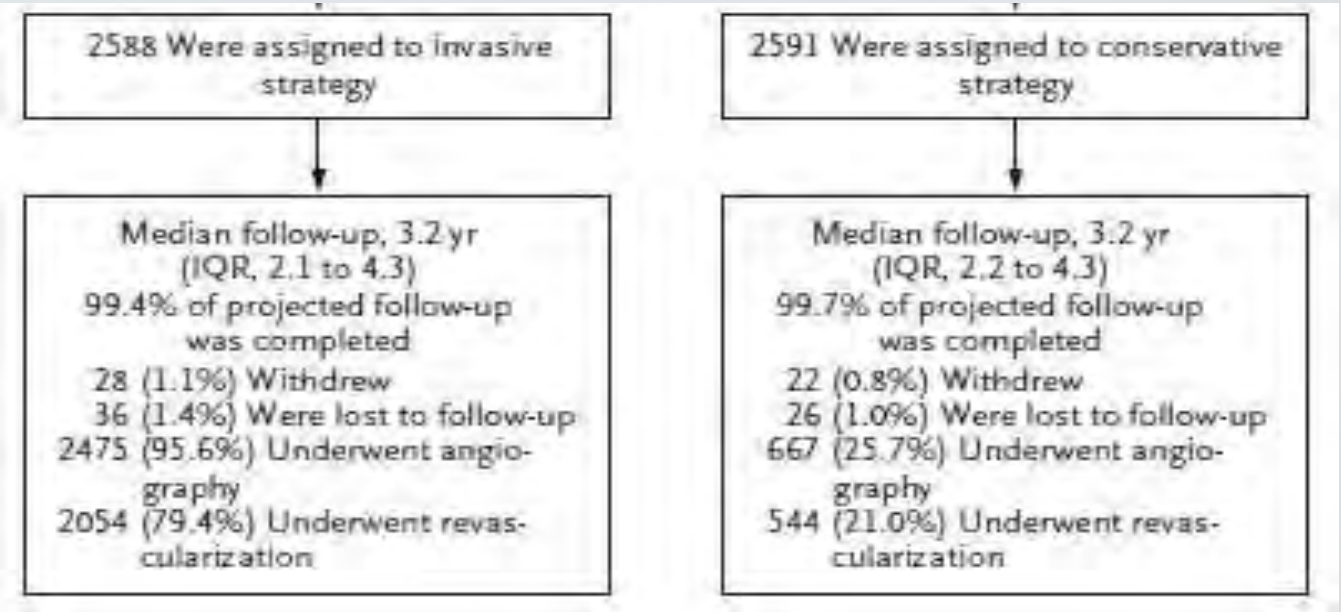


21% did not get revascularized

59% PCI

20% CABG

ISCHEMIA Trial



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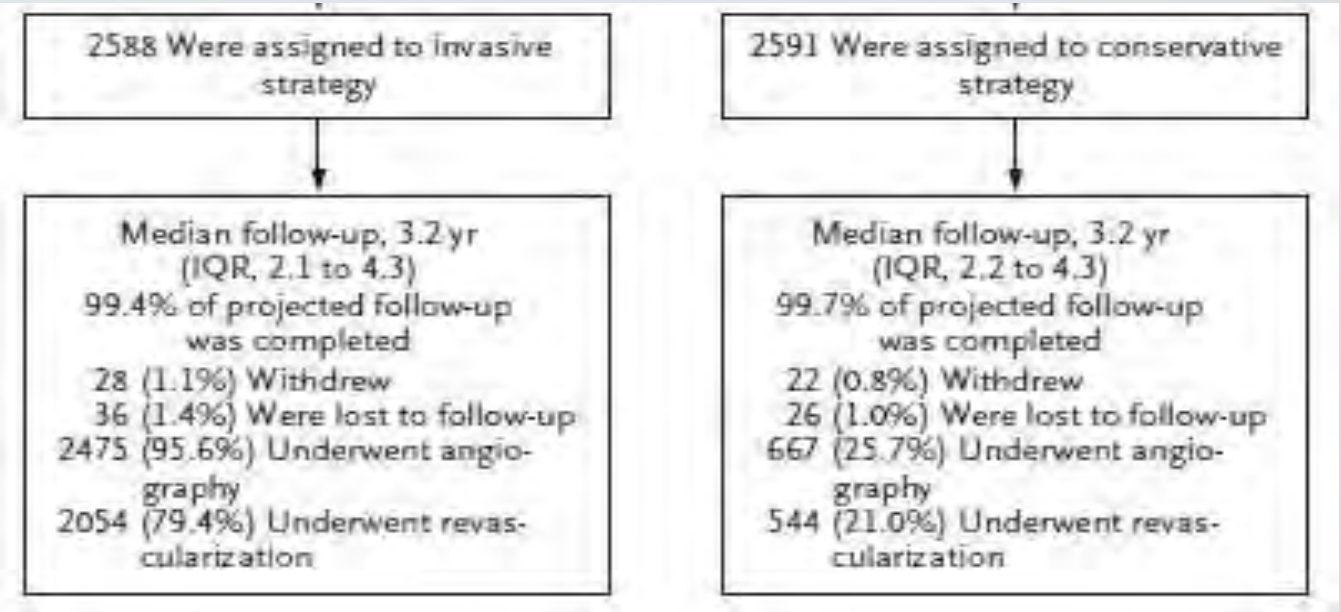

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21% early transfer rate to the other strategy

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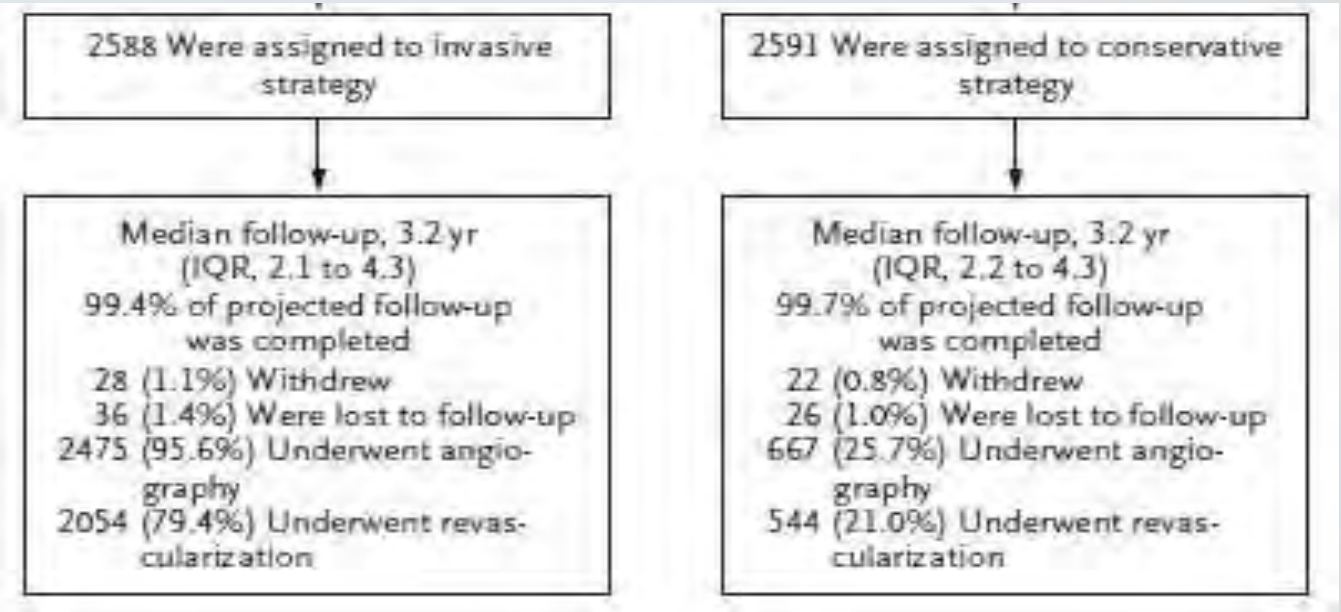

Revascularization trial?

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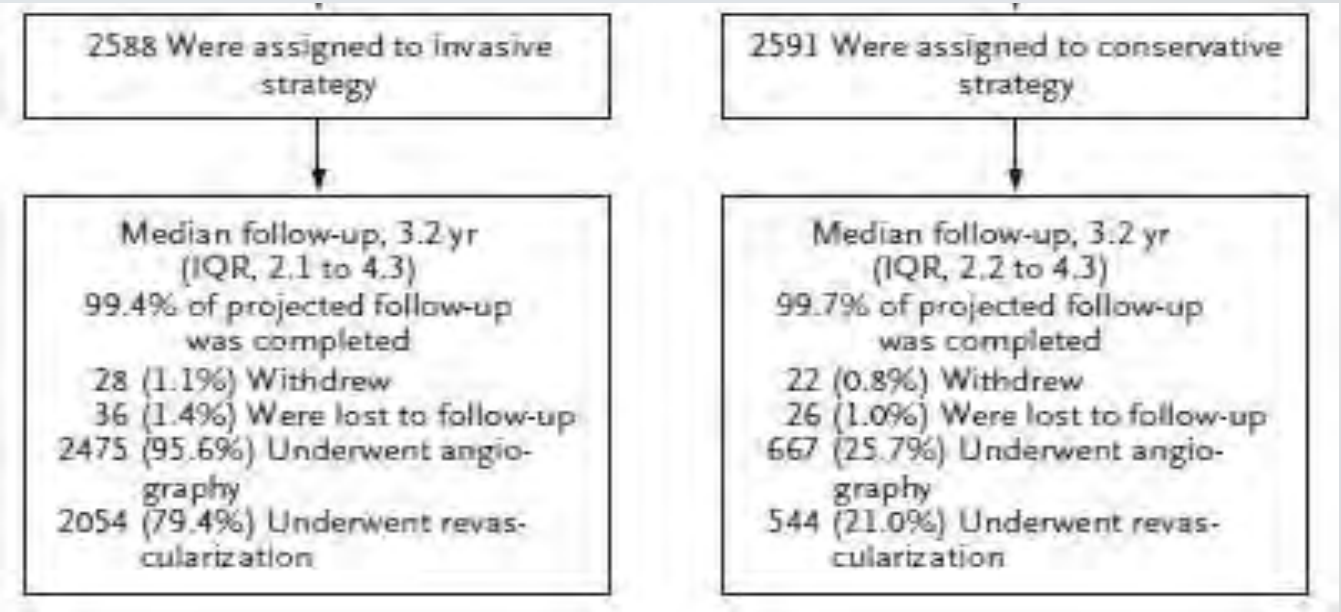

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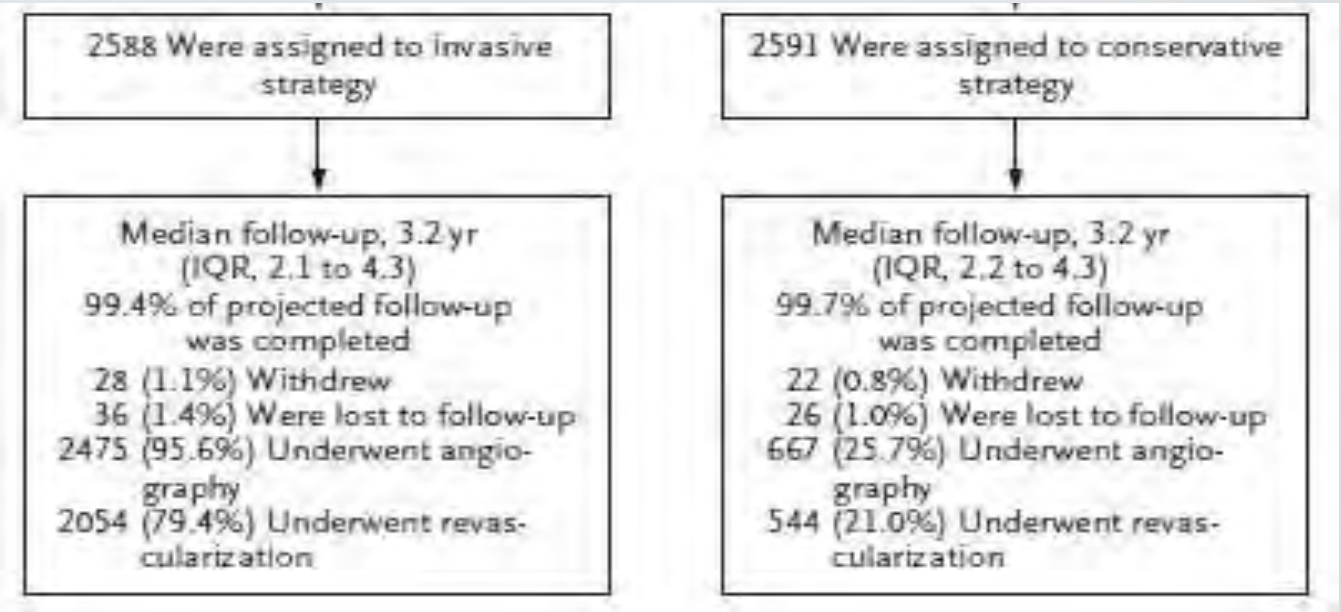

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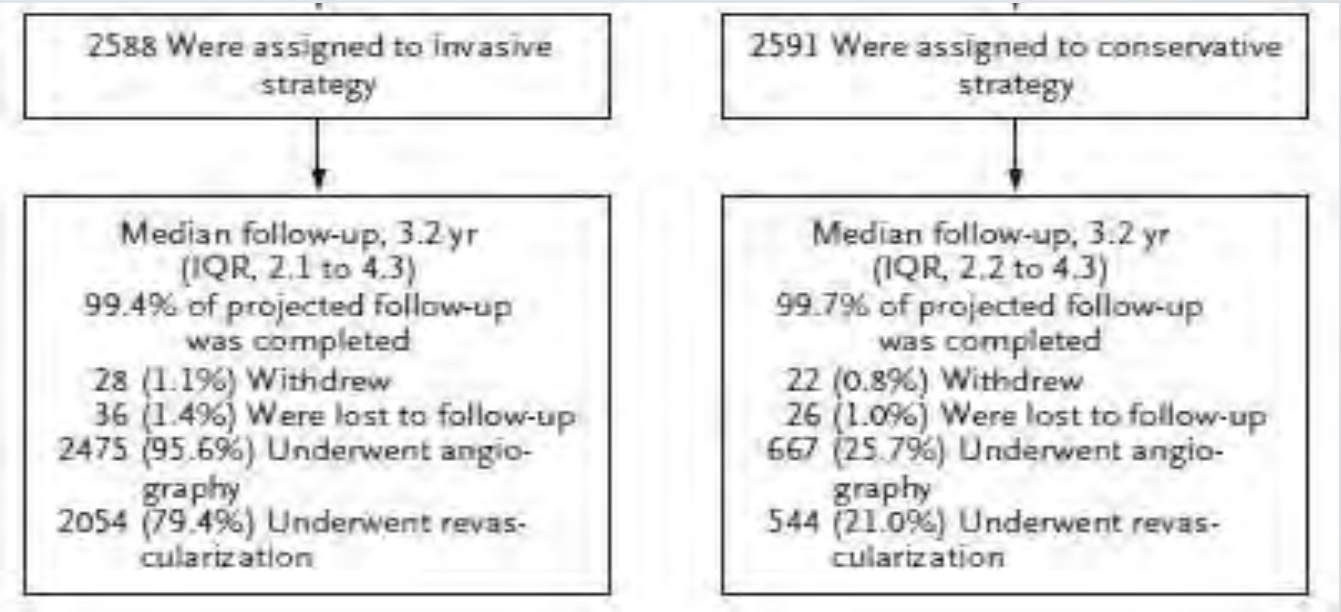

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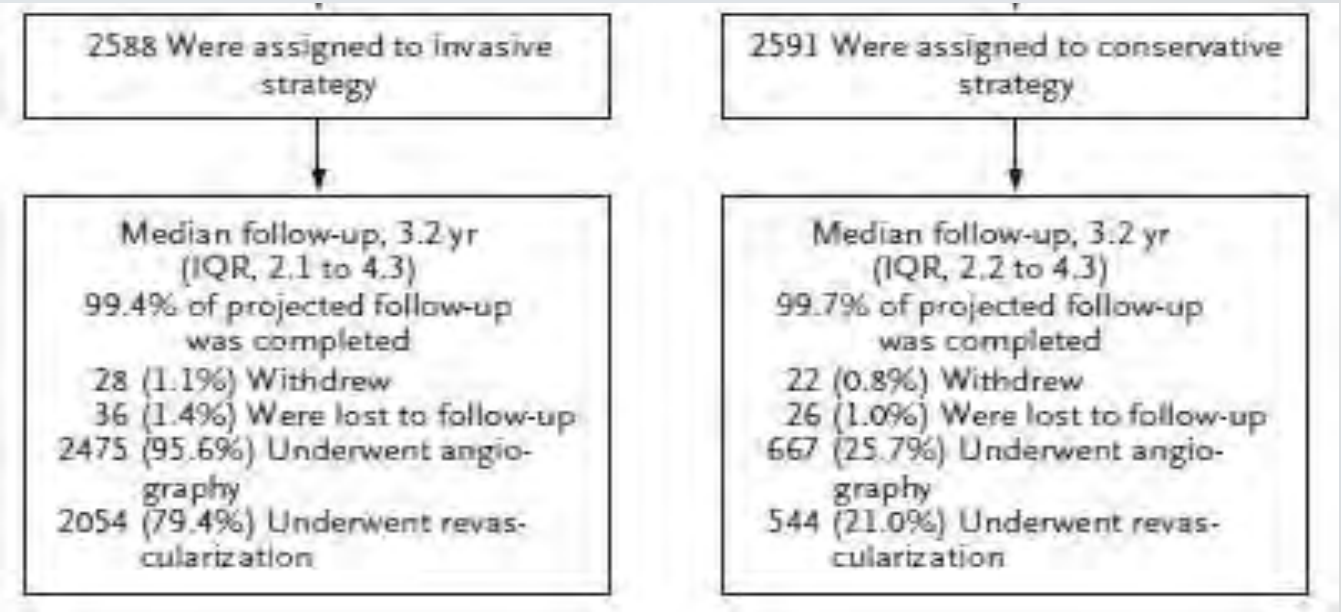

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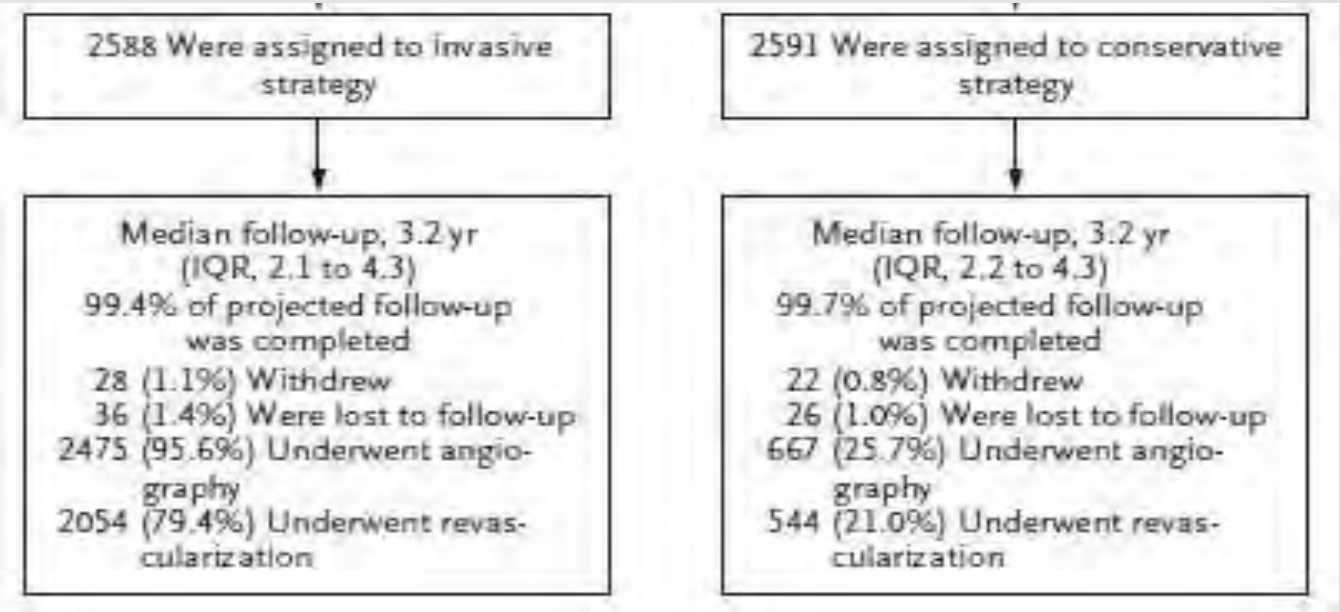

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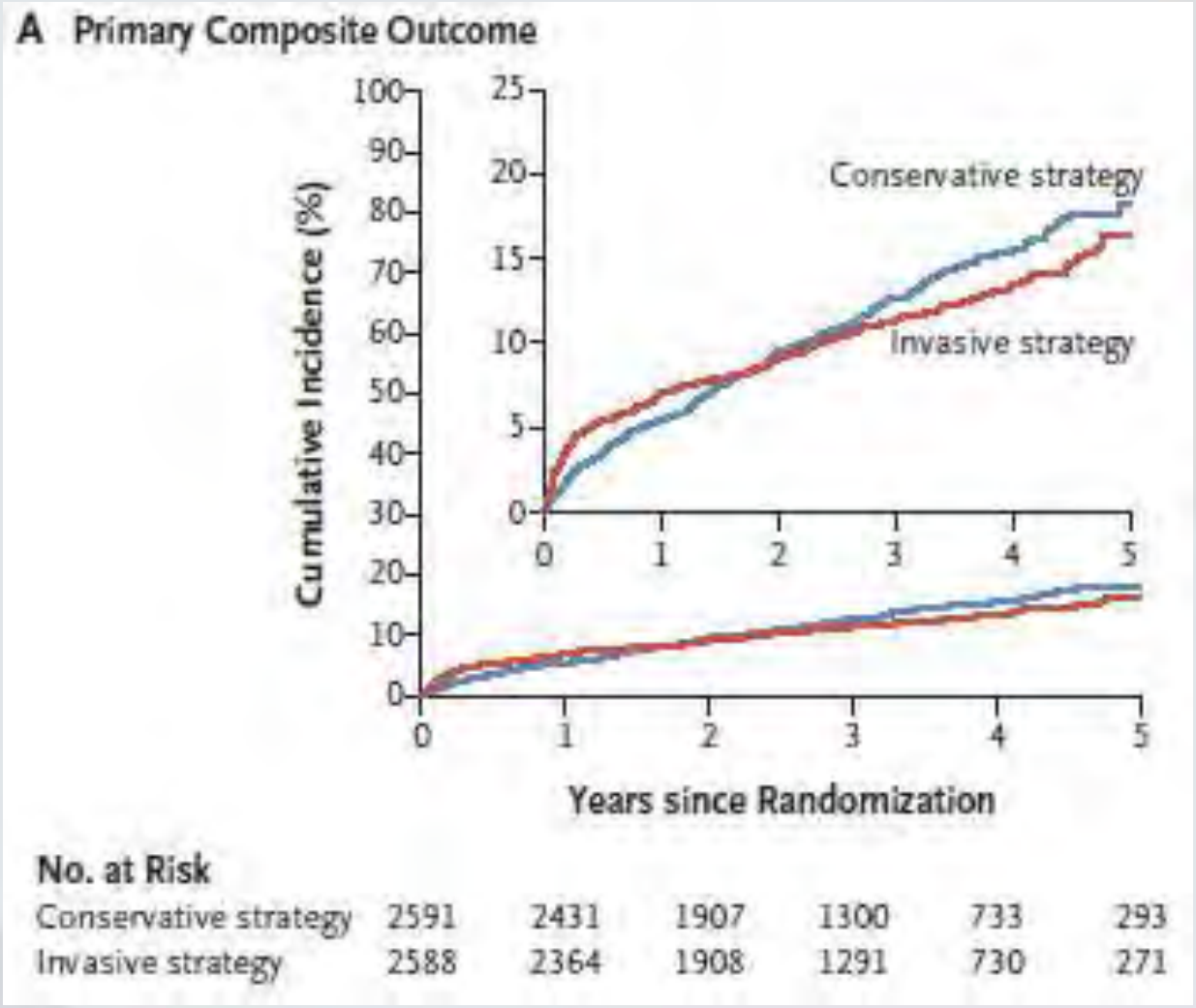
CABG was likely underutilized in the trial

ISCHEMIA Trial - Outcomes



ISCHEMIA Trial - Conclusions

Among patients with stable coronary disease and moderate or severe ischemia, we did not find evidence that an initial invasive strategy, as compared with an initial conservative strategy, reduced the risk of ischemic cardiovascular events or death from any cause over a median of 3.2 years

ISCHEMIA Trial - Conclusions

There was no difference in the risk of ischemic cardiovascular events or death from any cause between the treatment strategies

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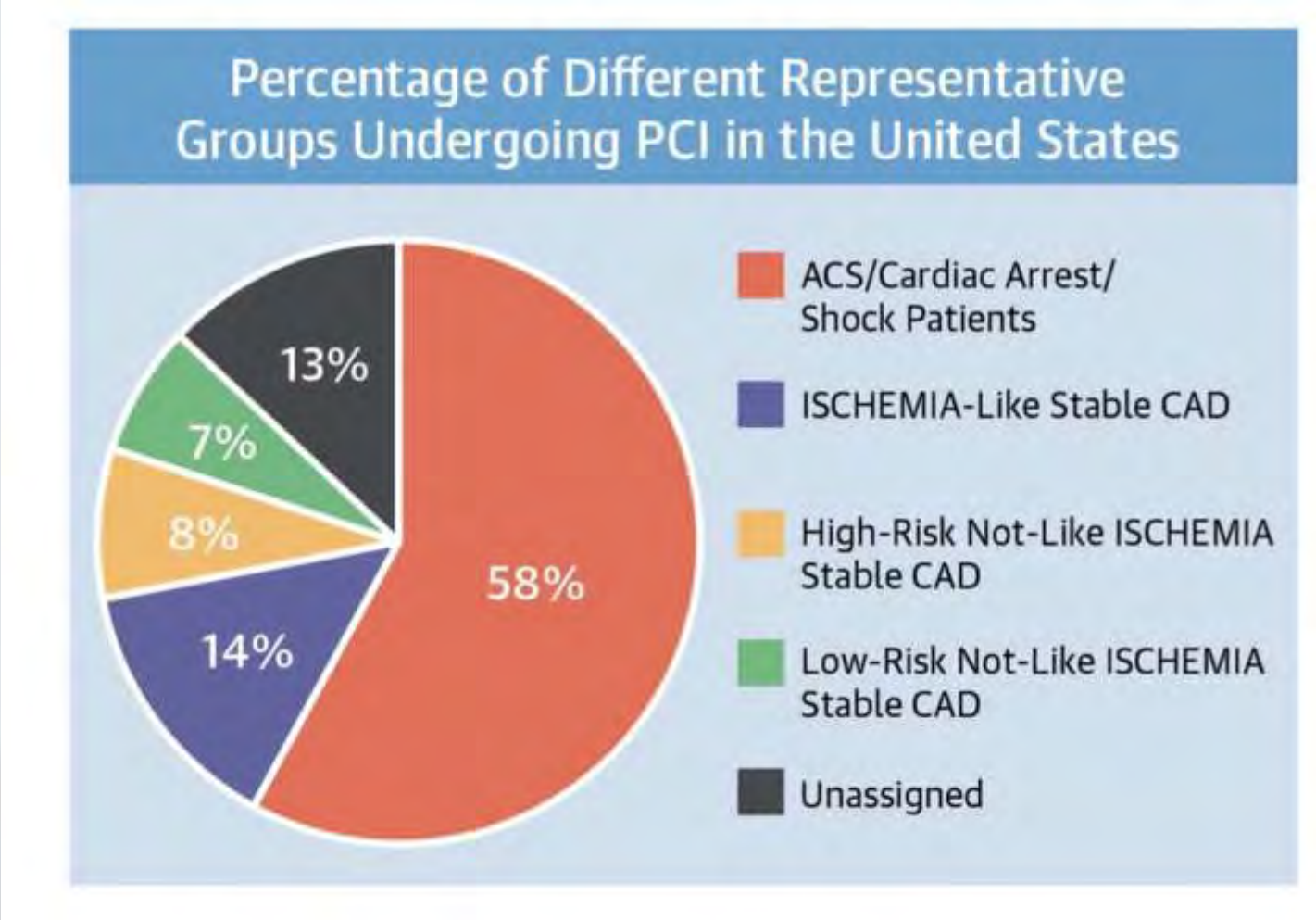
It was a trial to address initial angiogram + OMT ± revascularization (invasive) vs no angiogram + OMT (conservative)

Conclusion: For those who meet trial criteria, you can choose angiogram or OMT

Why is understanding ISCHEMIA important?



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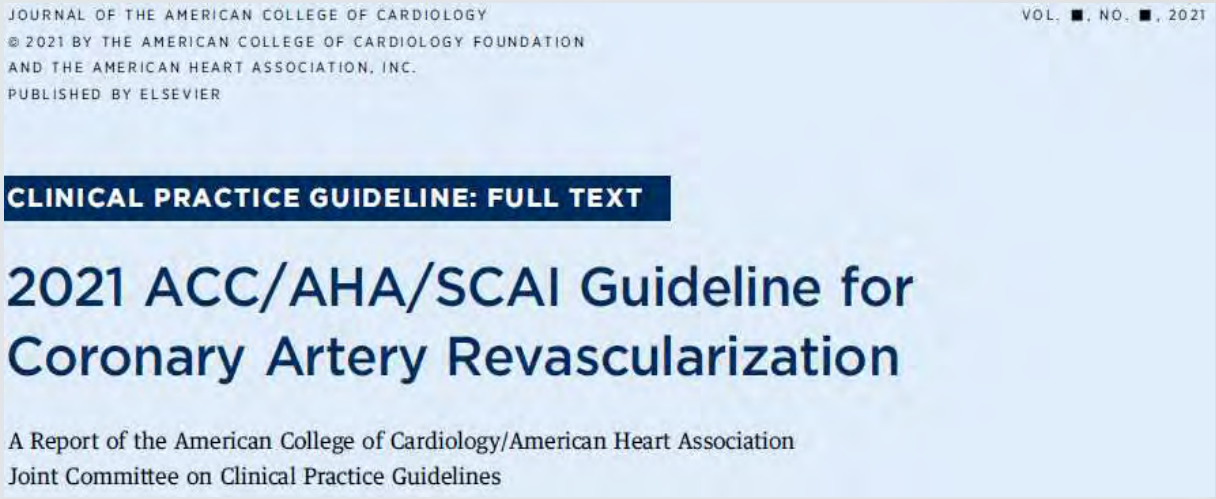

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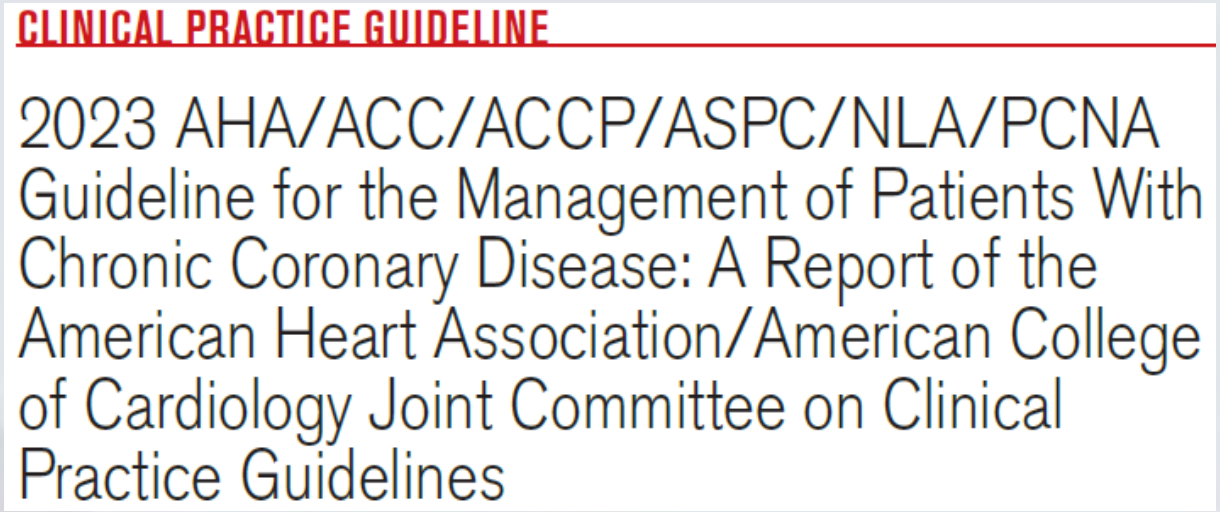
CLINICAL PRACTICE GUIDELINE: FULL TEXT

2021 ACC/AHA/SCAI Guideline for Coronary Artery Revascularization

A Report of the American College of Cardiology/American Heart Association
Joint Committee on Clinical Practice Guidelines



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Nebraska Medicine