2024 ESC Guidelines for the management of chronic coronary syndromes

was gibt es neues

Julinda Mehilli

LAKUMED Hospital Landshut-Achdorf

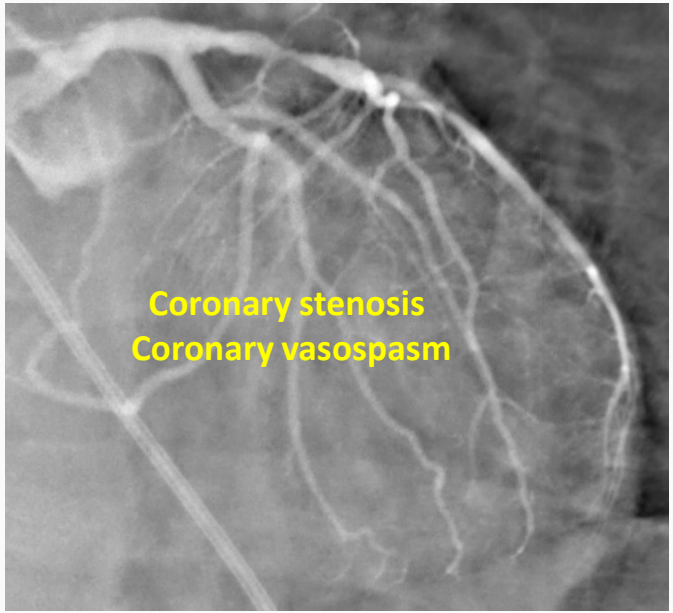
Ludwig-Maximilian University, Munich

Germany

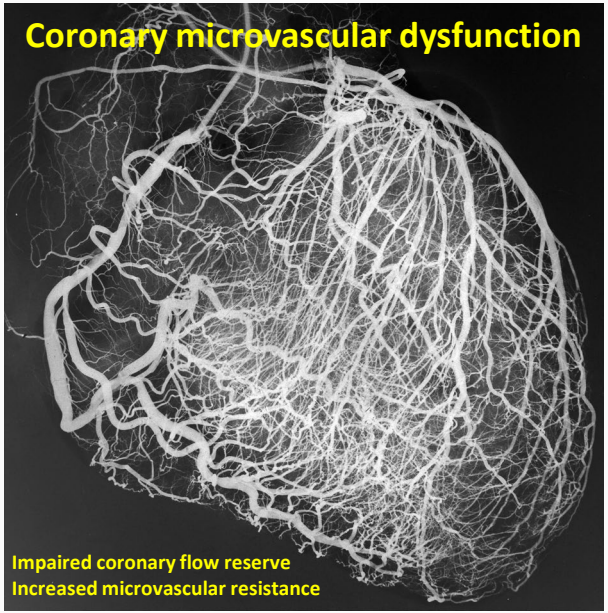
21st century's evolving concepts:

Myocardial ischaemia results from structural and/or functional changes in the epicardial coronary arteries and/or microcirculation.

Epicardial coronary arteries



Coronary microcirculation



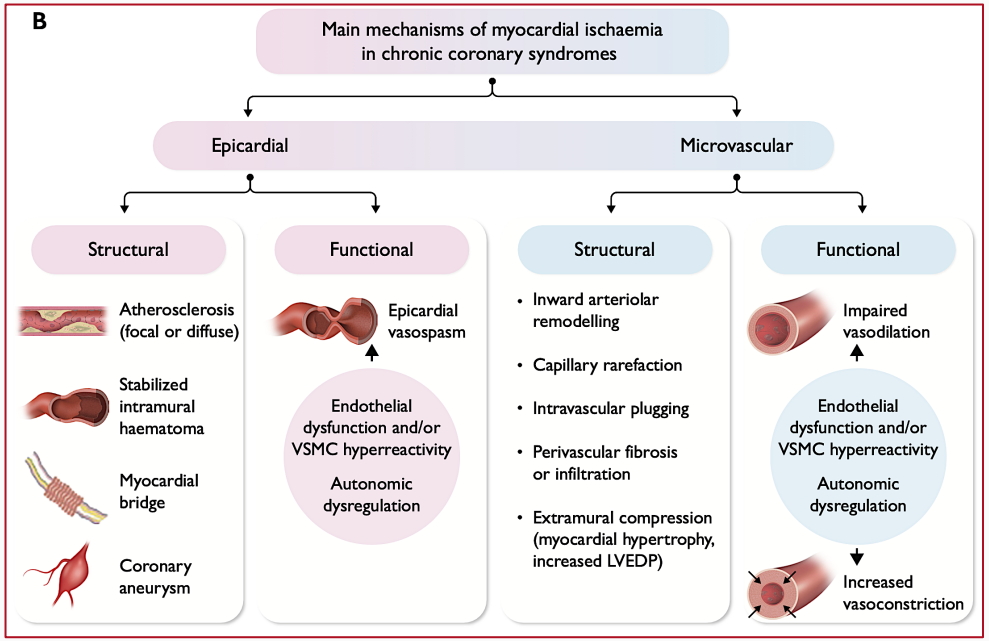
William Fulton, MD Thesis Univ Glasgow (1963); courtesy C Berry

2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

2024 ESC Guidelines for the diagnosis and management of chronic coronary syndromes – updated definition

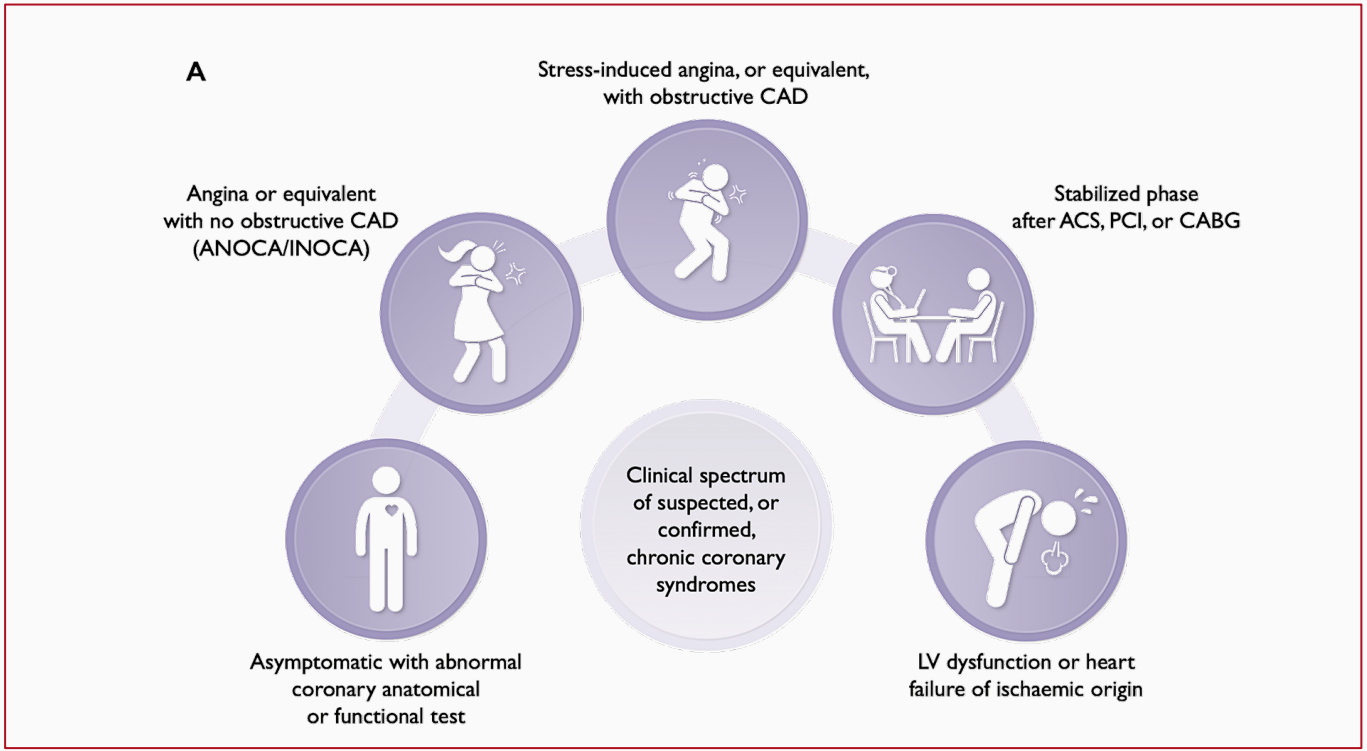
New

CCS are a range of clinical presentations or syndromes that arise due to structural and/or functional alterations related to chronic diseases of the coronary arteries and/or microcirculation.



2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

Clinical spectrum of chronic coronary syndromes



2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

Step-wise approach for managing patients with suspected CCS

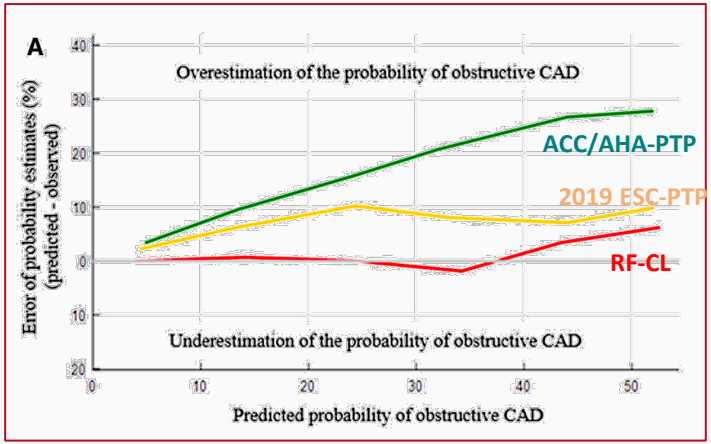
2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

Using the Risk Factor-weighted Clinical Likelihood model. (Class I)

[a] in selected patients

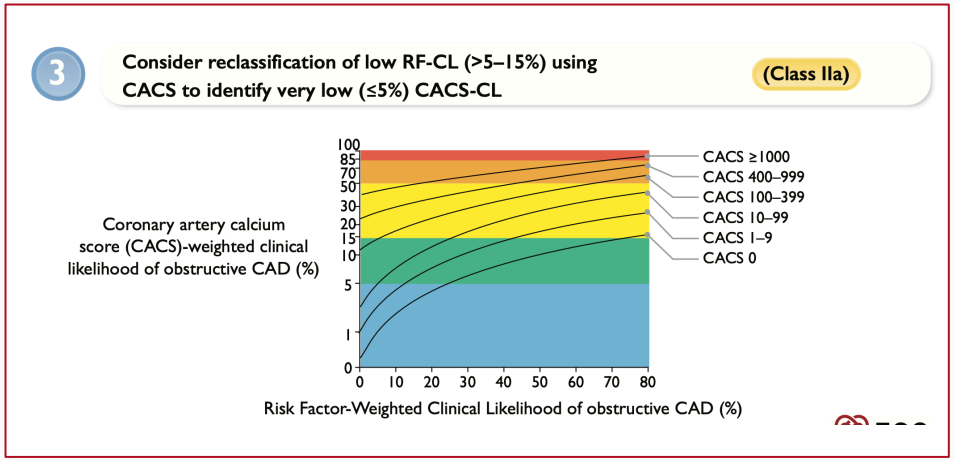
New

Risk Factor-weighted Clinical Likelihood Model



Winther S, Murphy T, Schmidt SE, et al. Performance of the AHA/ACC guideline-recommended pretest probability model for the diagnosis of obstructive coronary artery disease. J Am Heart Assoc 2022:e027260.

Adjustment of estimated Risk-Factor-weighted Clinical Likelihood obstructive CAD



Winther S, Schmidt SE, Foldyna B, et al. Coronary calcium scoring improves risk prediction in patients with suspected obstructive coronary artery disease. J Am Coll Cardiol 2022;80:1965-1977. doi: 10.1016/j.jacc.2022.08.805

Class IIa

Using the Risk Factor-weighted Clinical Likelihood model. (Class I)

Class I

With FFR/iFR Class I

Class I

Class I

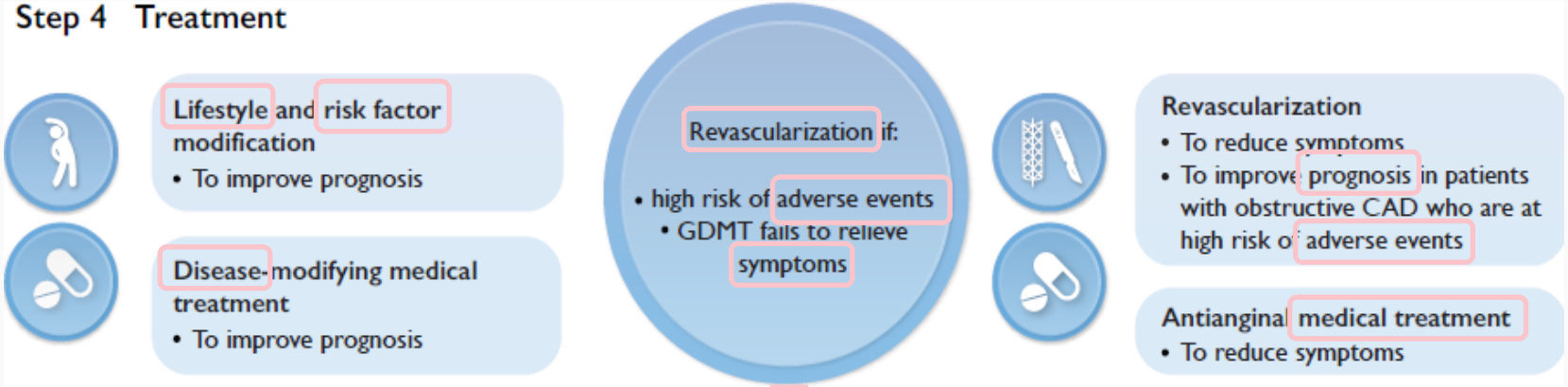
2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

Severe Myocardial Ischemia – ICA Class I Indication

The use of one or more of the following test results is recommended to identify individuals at high risk of adverse events: • exercise ECG: Duke Treadmill Score ≤ -10; • stress SPECT or PET perfusion imaging: area of ischaemia ≥10% of the LV myocardium; • stress echocardiography: ≥3 of 16 segments with stress-induced hypokinesia or akinesia; • stress CMR: ≥2 of 16 segments with stress perfusion defects or ≥3 dobutamine-induced dysfunctional segments; • CCTA: left main disease with ≥50% stenosis, three-vessel disease with ≥70 stenosis or two-vessel disease with ≥70% stenosis, including the proximal LAD or one-vessel disease of the proximal LAD with ≥70% stenosis and FFR-CT ≤0.8	I	B
In individuals at high risk of adverse events (regardless of symptoms), ICA—complemented by invasive coronary pressure (FFR/iFR) when appropriate—is recommended, with the aim of refining risk stratification and improving symptoms and cardiovascular outcomes by revascularization.	I	A

2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

Treatment of CCS as a Whole



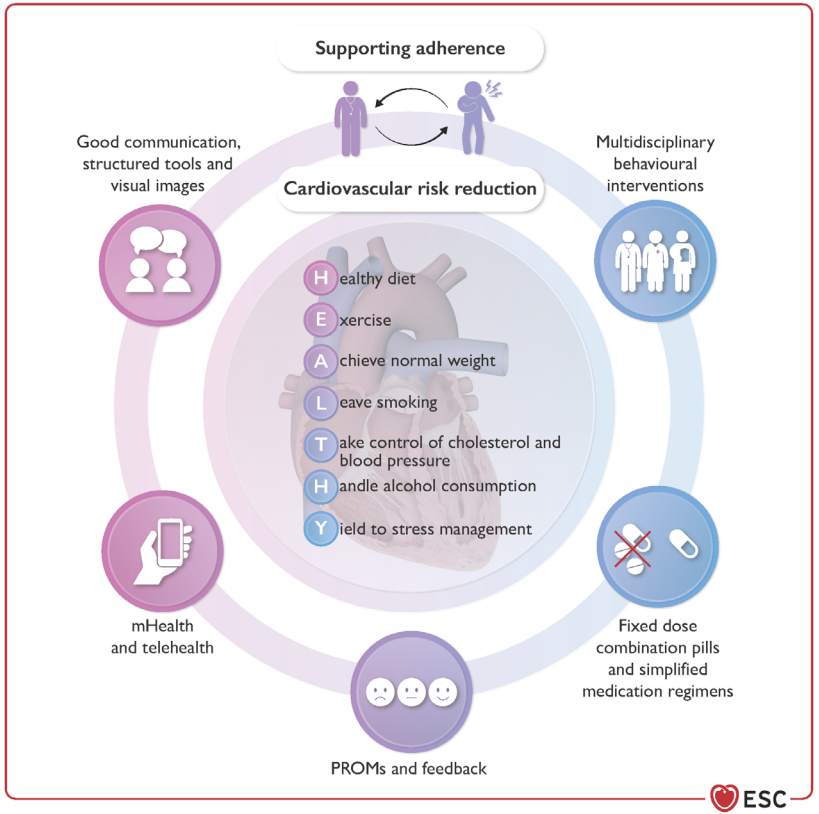
CCS: a functional, anatomical and clinical continuum

- risk factors - endothelial dysfunction – impaired vasomotion – impaired flow reserve
- disease of large to medium and micro-vessels — atheroma (composition as well as flow-limiting stenoses)
- ischaemia –angina – infarction – heart failure – arrhythmias – CV death – death

Treating any element of the continuum has potential impact on other elements and ultimately on outcomes

2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

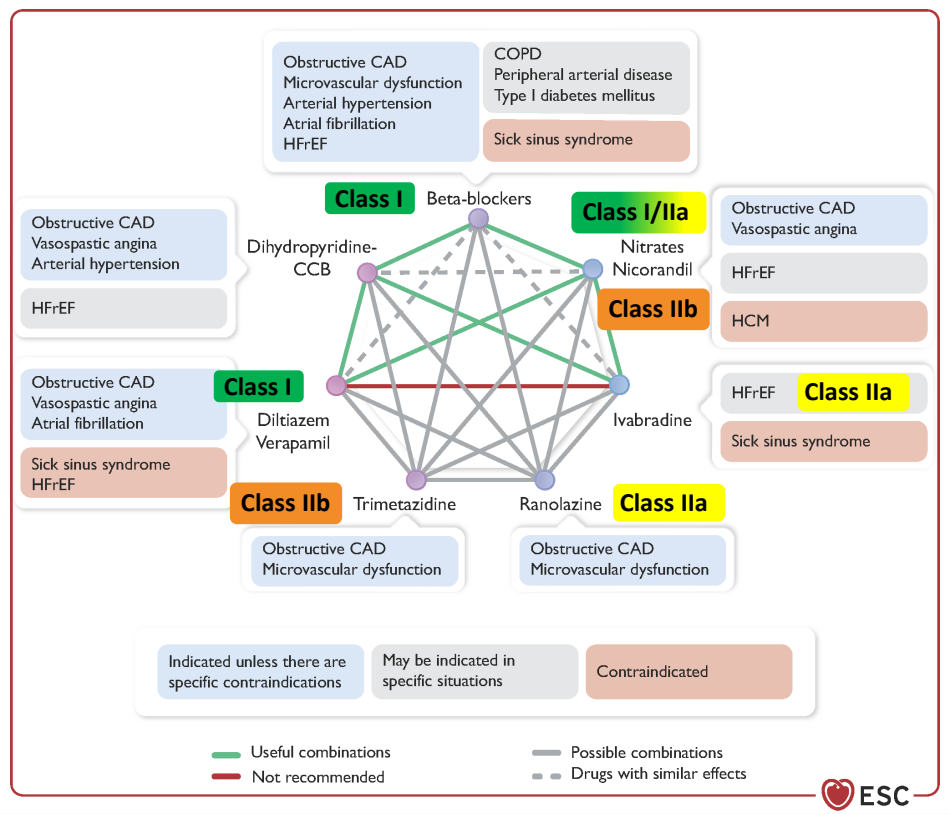
Patient-centered Treatment



to live long and healthy lives

2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

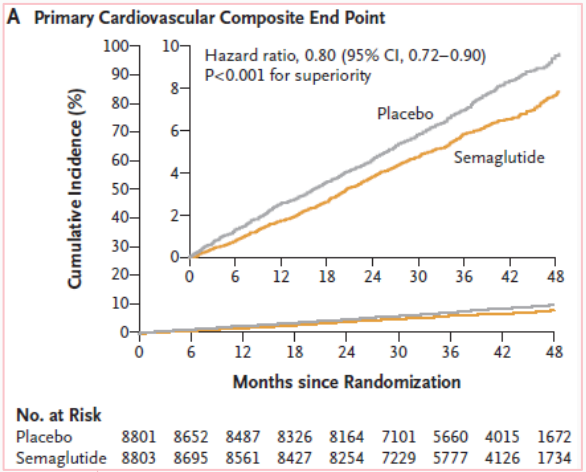
Antianginal Drugs and Combinations



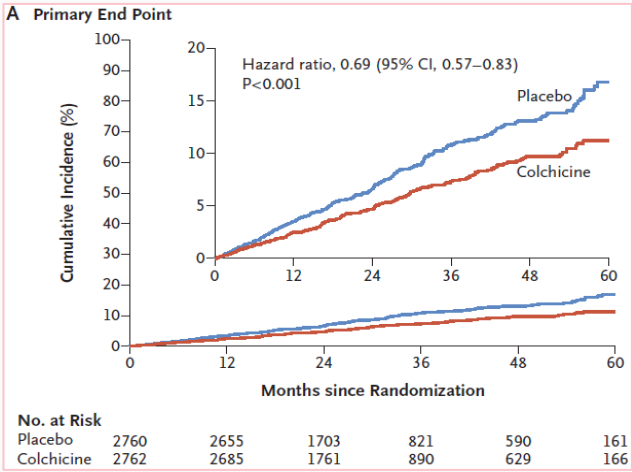
2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

Event-Preventing Metabolic & Anti-inflammatory Drugs

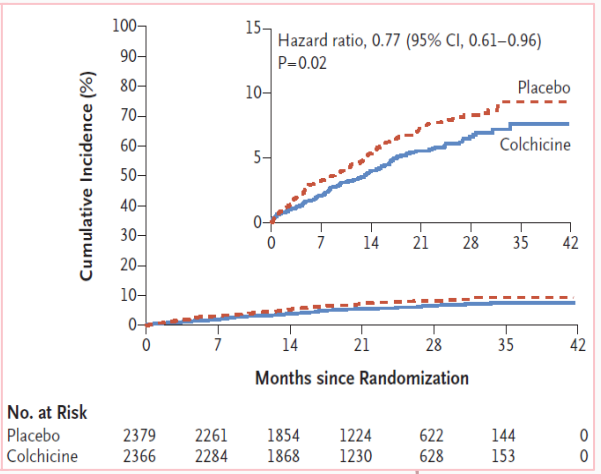
SELECT



LoDoCo2



COLCOT



New

The GLP-1 receptor agonist semaglutide should be considered in overweight (BMI >27 kg/m2) or obese CCS patients without diabetes to reduce CV mortality, MI, or stroke.	IIa	B
In CCS patients with atherosclerotic CAD, low-dose colchicine (0.5 mg daily) should be considered to reduce myocardial infarction, stroke, and need for revascularization.	IIa	A

Revised

2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

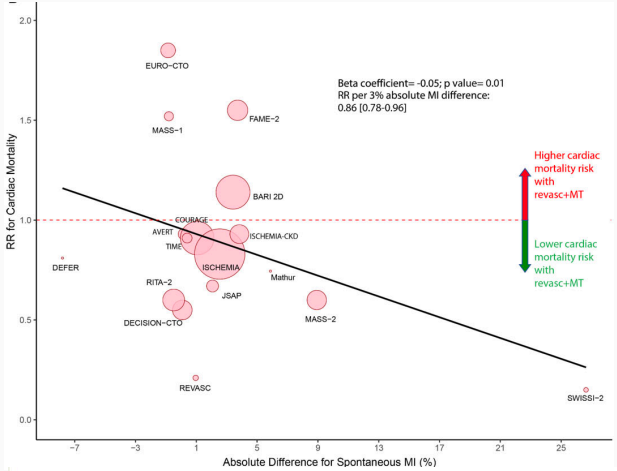
Revascularization of Significant Non-LM CAD (LVEF >35%)

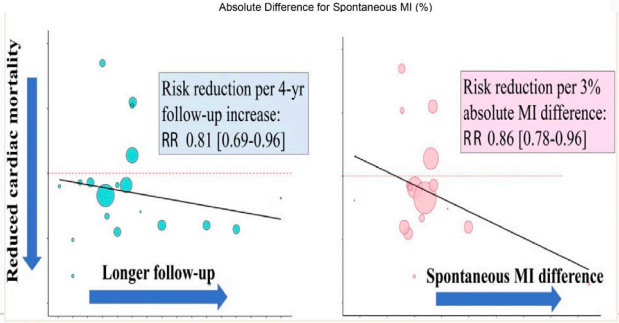
Meta-analysis by Navarese et al.

Rigorous by Cochrane

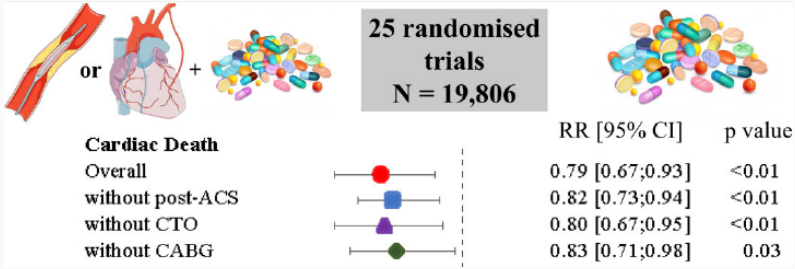
1979 → Mathur
1983 → CAAS
1984 → VA
1988 → ECSS
1992 → ACME 1 & 2
1997 → ACIP
1999 → AVERT MASS-1
2003 → RITA-2
2004 → TIME
2006 → INSPIRE
2007 → COURAGE SWISSI-2
2008 → JSAP
2009 → BARI 2D
2010 → MASS-2
2015 → DEFER
2018 → ORBITA REVASC FAME-2
2019 → EURO-CTO DECISION-CTO
2020 → ISCHEMIA ISCHEMIA-CKD

Plausible coherence

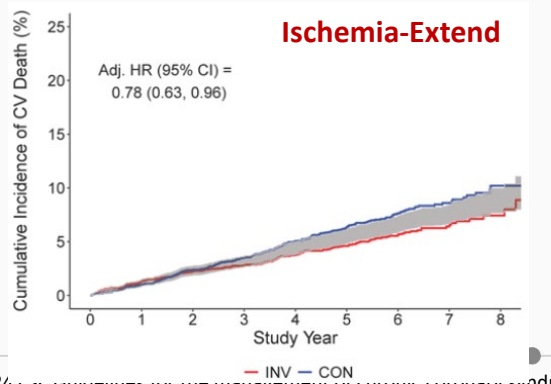




Reproducible vs. Ischemia-Extend



At 5.7 yr FU:
Navarese et al.: 21% lower RR with Revasc+MT
Ischemia-Extend: 22% lower HR with Inv. Strategy



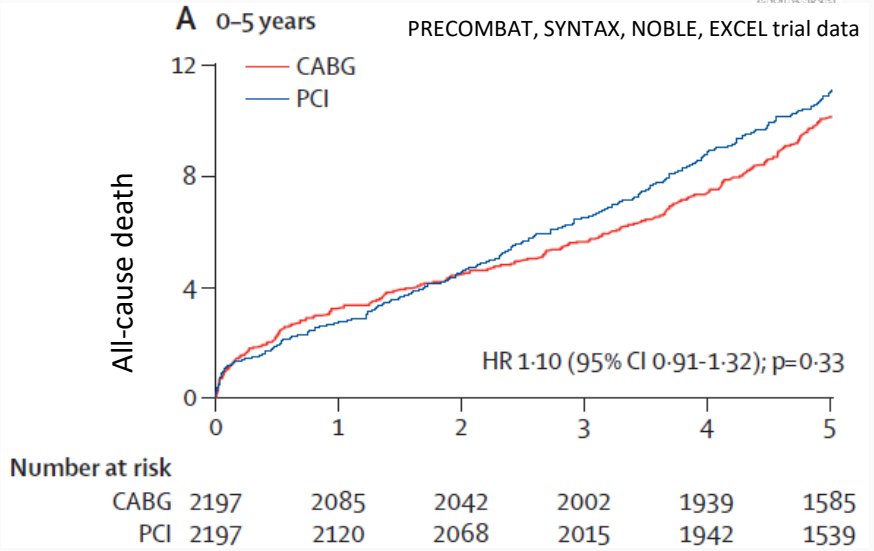
2024 ESC Guidelines for the management of chronic coronary syndromes (European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

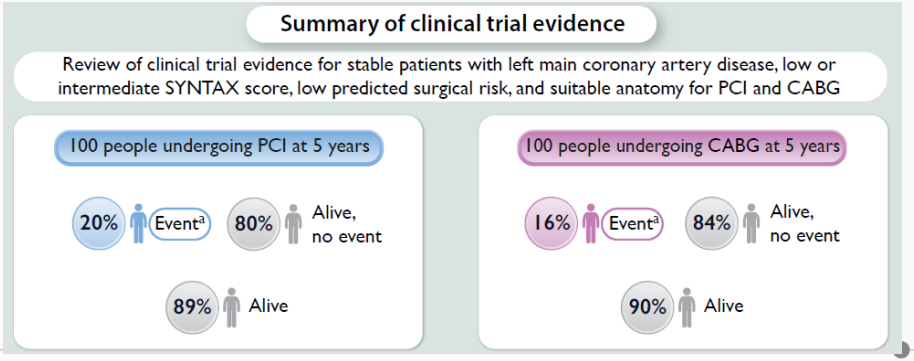
Recommendations for Revascularization in Patients with Chronic Coronary Syndrome with LVEF >35%

2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

Revascularization of Significant Left Main CAD

- ✓ 03/2005 – 01/2015,
- ✓ 4394 patients in 260 centres
- ✓ **1.7 patient/center/year**
- ✓ age 66 years (59-73)
- ✓ LVEF <50%, 12%
- ✓ EuroSCORE 3.0 (1.0-4.0)
- ✓ lower burden of comorbidities
- ✓ immature interventional strategy
- ✓ old generation DES used
- ✓ various definitions of MI
- ✓ Syntax Score one of the key inclusion criteria



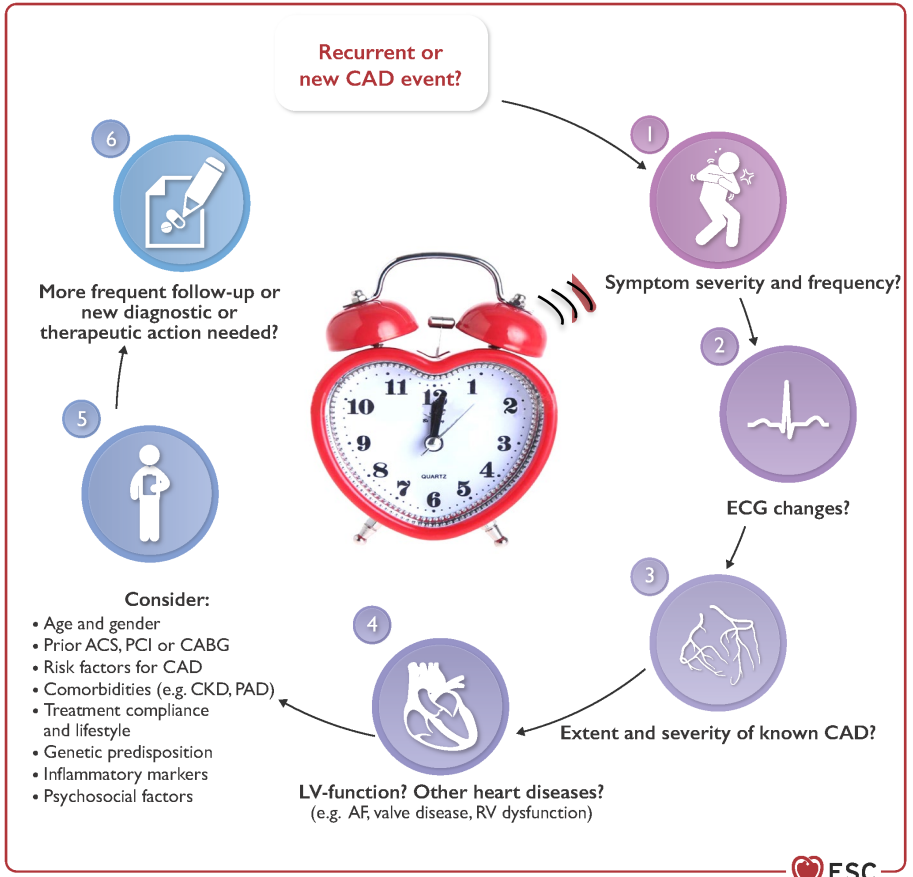


2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

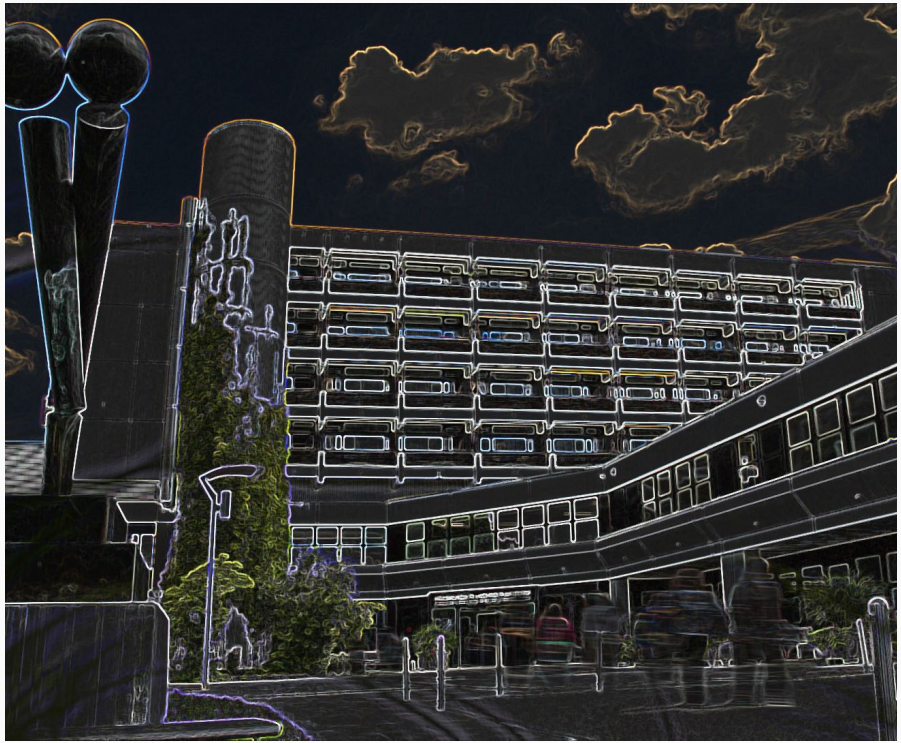
Recommendations for Mode of Revascularization in Chronic Coronary Syndrome Patients with uLMCA

2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)

Long-term Follow-up of CCS Patients



2024 ESC Guidelines for the management of chronic coronary syndromes
(European Heart Journal; 2024 – doi: 10.1093/eurheartj/ehae177)



VIELEN DANK!

julinda.mehilli@lakumed.de

@jumehilli