

UPDATE 001 / RESUSCITATION

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No ST Elevation After Arrest. Straight to the Cath Lab?

DISCO adds the largest randomised dataset yet to a difficult post-ROSC question - and strengthens an existing body of randomised evidence questioning routine immediate angiography after OHCA without ST elevation.

KEY CLINICAL QUESTION

Has DISCO closed the case against immediate angiography - or clarified why the ECG must remain one part of a wider post-arrest assessment?

54.6%

IMMEDIATE ANGIOGRAPHY

53.6%

DEFERRED STRATEGY

NO STATISTICALLY SIGNIFICANT DIFFERENCE | HR 0.95 (95% CI 0.74-1.21); p=0.67

WHAT IS DISCO?

DISCO - Direct or Subacute Coronary Angiography in Out-of-Hospital Cardiac Arrest - is a randomised clinical trial examining whether immediate coronary angiography improves outcomes after resuscitated OHCA when the post-ROSC ECG shows no ST elevation.

The full trial randomised 1,006 unconscious adults following witnessed OHCA with sustained ROSC and no ST elevation across 23 centres in Sweden, Denmark and the Netherlands, comparing an immediate angiography strategy with a deferred strategy.

The trial builds on the earlier DISCO pilot study published in 2019 (Elfwén et al., 2019; European Society of Cardiology, 2026a).

WHY WE STOPPED TO READ IT

The question did not begin with DISCO. COACT, TOMAHAWK and EMERGE had already failed to demonstrate improved survival from a routine immediate angiography strategy in selected patients following OHCA without ST elevation (Lemkes et al., 2019; Desch et al., 2021; Hauw-Berlemont et al., 2022).

DISCO matters because it adds 1,006 randomised patients - the largest individual randomised dataset addressing this question to date. But it is new evidence, not new UK ambulance guidance.

WHAT THE EVIDENCE FOUND

DISCO enrolled 1,006 unconscious adults following witnessed OHCA with sustained ROSC and no ST elevation across 23 centres. Immediate angiography was intended within 120 minutes; the deferred strategy intended a delay of at least 72 hours.

Thirty-day survival was 54.6% with immediate angiography and 53.6% with the deferred strategy. The difference was not statistically significant (HR 0.95; 95% CI 0.74-1.21; p=0.67). Survival at 180 days and neurological outcomes also did not differ significantly.

INTERPRETATION

WHAT THIS DOES NOT MEAN

01 / IT DOES NOT APPLY TO EVERY PATIENT AFTER ROSC.

DISCO studied a defined population: unconscious adults following witnessed OHCA, sustained ROSC and no ST elevation. Trial selection matters, and COACT, TOMAHAWK, EMERGE and DISCO did not recruit identical populations or use identical protocols (Lemkes et al., 2019; Desch et al., 2021; Hauw-Berlemont et al., 2022; European Society of Cardiology, 2026b).

02 / NO ST ELEVATION DOES NOT MEAN NO CORONARY PATHOLOGY.

The original DISCO pilot demonstrated that culprit coronary lesions can be present despite absent ST elevation (Elfwén et al., 2019). Current European post-resuscitation guidance places the ECG within a broader assessment of the likelihood of an ischaemic cause rather than treating ST elevation as the only relevant finding (Nolan et al., 2025b).

03 / IT DOES NOT MEAN UNSTABLE PATIENTS SHOULD WAIT.

Patients allocated to the deferred strategy could undergo earlier angiography if electrical or haemodynamic instability developed. DISCO therefore did not test a rigid 72-hour delay regardless of deterioration (European Society of Cardiology, 2026b). This distinction is consistent with current UK and European guidance (Deakin et al., 2025; Nolan et al., 2025; Nolan et al., 2025b).

04 / A NEUTRAL RESULT DOES NOT IDENTIFY EVERY SUBGROUP.

Pooled randomised evidence has not identified a convincing subgroup in which routine early angiography clearly improves outcomes (Al Lawati et al., 2023; Hamidi et al., 2024; Spoormans et al., 2025). But subgroup size, trial eligibility and representation of unstable patients affect how confidently those findings can be generalised.

OUR READ

DISCO makes the word 'routine' more important than the words 'cath lab'.

The interesting finding is not simply that another trial was neutral. DISCO now sits alongside COACT, TOMAHAWK, EMERGE and multiple pooled analyses pointing in the same direction: routine immediate angiography has not demonstrated a survival advantage across the selected OHCA-without-ST-elevation populations studied.

What makes this patient different from the population in which a routine immediate strategy failed to improve outcomes?

ON SHIFT

WHAT THIS MEANS IN PRACTICE

For UK prehospital clinicians, DISCO should not create a new binary destination rule. Current RCUK guidance should continue to govern practice. Following ROSC, assessment of suspected coronary occlusion extends beyond the presence or absence of ST elevation and includes the wider clinical context (Nolan et al., 2025; Deakin et al., 2025).

PREHOSPITAL IMPLICATION: rather than reducing the patient to 'STEMI' or 'not STEMI', communicate the wider arrest story - arrest circumstances, initial rhythm, ROSC course, haemodynamic state, electrical instability and evolving ECG findings.

DISCO informs the probability discussion. It does not replace the pathway.

THE BOTTOM LINE

01 ROUTINE IS THE KEY WORD.

No survival advantage has been demonstrated from routine immediate angiography in the selected RCT populations.

02 NO ST ELEVATION IS NOT NO OCCLUSION.

The ECG is part of the assessment, not a coronary rule-out test.

03 KNOW WHO WAS STUDIED.

External validity matters before applying a population-level result to a different patient.

04 INSTABILITY CHANGES THE QUESTION.

DISCO allowed earlier angiography for electrical or haemodynamic instability.

05 EVIDENCE INFORMS. GUIDANCE GOVERNS.

DISCO does not independently change RCUK guidance or local pathways.

APPLYING THE EVIDENCE / HYPOTHETICAL CASE

A patient remains unconscious following witnessed VF arrest and sustained ROSC. The first ECG shows no ST elevation, but recurrent ventricular arrhythmia and hypotension develop. DISCO does not make this a routine deferred case: earlier angiography was permitted for electrical or haemodynamic instability.

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