

THIS WEEK IN BRIEF

A European Society of Cardiology consensus on temporary mechanical circulatory support limits early Impella use to selected STEMI cardiogenic shock and advises against routine VA-ECMO in infarct-related shock; a companion consensus covers acute heart failure in emergency settings. A French ICU guideline on atrial fibrillation advises against routine anticoagulation for new-onset AF, largely on expert opinion.

PELICAN found no organ protection from individualized intraoperative cardiac index targets, with an exploratory 90-day mortality signal (5.7% vs 2.8%). LATE-MT extended stroke thrombectomy to 72 hours (common OR 1.74) with more hemorrhage, and meta-analyses of high-flow oxygen, the furosemide stress test and decompressive craniectomy showed no mortality effect.

Strategic priorities. Cardiogenic shock and temporary MCS: Chieffo (rank 1), the ESC consensus on device selection, escalation, anticoagulation and weaning, and Miró (rank 7) on acute heart failure in emergency settings, including early referral of hypoperfused patients to shock hubs. Ventilation and respiratory support: Zhu (rank 5) on HFNC vs standard oxygen in hypoxemic respiratory failure; an editorial by Luo and colleagues on aligning ECCO2R trials in ARDS with ventilatory unloading was summarized and not briefed. No supplementary strategic article was added this week.

1.74

common odds ratio for better 90-day function with thrombectomy 24 to 72 hours after stroke (Yang, LATE-MT)

2.06

relative risk of 90-day death, exploratory, with individualized cardiac index targets in surgery (Saugel, PELICAN)

NNT 19

to avoid one intubation with high-flow oxygen, low certainty, 36.8% of required sample (Zhu)

AT A GLANCE

#	Study	Design	Result in one line	Signal
1	Chieffo: temporary MCS consensus Chieffo et al, Eur Heart J 2026	Clinical consensus statement, EAPCI and ACVC of the ESC	Microaxial pump in selected STEMI shock; DanGer Shock 180-day death HR 0.74	Confirms practice
2	Labbé: AF in the ICU guideline Labbé et al, Ann Intensive Care 2026	Society guideline, modified GRADE and Delphi, 18 recommendations	16 of 18 recommendations expert opinion; no anticoagulation for NOAF under 48 h	Consider locally
3	Saugel: PELICAN cardiac index Saugel et al, JAMA 2026	Single-blind RCT, 12 European centres, 1,095 adults	7-day composite 44.3% vs 46.9%, RR 0.94; 90-day death 5.7% vs 2.8%	Confirms practice
4	Yang: LATE-MT late thrombectomy Yang et al, N Engl J Med 2026	PROBE RCT, 35 Chinese stroke centres, 336 adults	90-day mRS common OR 1.74 (95% CI 1.19 to 2.55); symptomatic ICH 4.8% vs 0%	Watch
5	Zhu: HFNC meta-analysis Zhu et al, BMC Pulm Med 2026	Meta-analysis with TSA, 10 RCTs, 3,162 adults	Intubation RR 0.85 (95% CI 0.77 to 0.93); mortality RR 1.01	Confirms practice
6	Tran: furosemide stress test Tran et al, Crit Care Med 2026	Diagnostic meta-analysis, 20 studies, 1,979 patients	Stage 3 AKI AUC 0.89; FST-guided early KRT mortality RR 1.00	Watch
7	Miró: acute heart failure in the ED Miró et al, Eur Heart J 2026	Multisociety clinical consensus statement, 27 authors	Phenotype-led care, NIV with a 1-hour check, diuretic response within 6 hours	Confirms practice
8	Putowski: brachial-radial gradient Putowski et al, Crit Care Med 2026	Prospective cross-sectional cohort, 13 Polish ICUs, 303 adults	Gradient above 11 mm Hg in 18.4%; linked to higher vasopressor dose and lactate	Watch
9	Bouras: craniectomy in TBI Bouras et al, Crit Care Resusc 2026	Meta-analysis with TSA, 8 RCTs, 1,326 adults	Unfavourable outcome RR 1.00 (95% CI 0.83 to 1.20); mortality RR 0.84	Confirms practice
10	Hägglöf: sex and LST limitation Hägglöf et al, Ann Intensive Care 2026 (pre-proof)	Nationwide registry cohort, 67 Swedish ICUs, 111,354 adults	Adjusted OR 1.21 (95% CI 1.17 to 1.25) for limitation in women	Consider locally

Signals: **CHANGE PRACTICE** **CONSIDER LOCALLY** **CONFIRMS PRACTICE** **WATCH** Click a title to jump to its card · [This week on SharePoint](#)

The studies

1. ESC consensus on temporary MCS: early Impella for selected STEMI shock, no routine VA-ECMO

CONFIRMS PRACTICE Chieffo et al, Eur Heart J 2026 · Clinical consensus statement, EAPCI and ACVC of the ESC · Certainty: **Low** · [PDF](#) · [Briefing](#)

Bottom line. This European Society of Cardiology (ESC) consensus updates the 2020 statement and frames temporary mechanical circulatory support (tMCS) as a decision driven by phenotype, shock stage and exit route. Early microaxial flow pump (mAFP, the Impella CP class) support may be suggested in selected ST-elevation myocardial infarction cardiogenic shock (STEMI-CS) with left-predominant failure and no hypoxic brain injury. Routine early venoarterial ECMO (VA-ECMO) in acute myocardial infarction cardiogenic shock (AMI-CS) is not supported, and every device decision sits inside a shock team with a defined exit plan.

Population: Adults with cardiogenic shock; randomized data exist only for AMI-CS, about 27% of shock in cited registry data · **Scope:** Device selection, escalation, monitoring, anticoagulation, weaning and systems of care · **Evidence:** DanGer Shock, ECLS-SHOCK, patient-level meta-analyses, observational data and expert opinion

RESULTS

- DanGer Shock as summarized: 180-day mortality 45.8% vs 58.5% (HR 0.74, 95% CI 0.55 to 0.99; NNT about 8), with more renal replacement therapy (RR 1.98, 95% CI 1.27 to 3.09), major bleeding (RR 2.06, 95% CI 1.15 to 3.66) and limb ischemia (RR 5.15, 95% CI 1.11 to 23.84). Only 20.1% had undergone CPR, and comatose patients were excluded.
- ECLS-SHOCK: 30-day mortality 47.8% vs 49.0% (RR 0.98, 95% CI 0.80 to 1.19), with BARC 3 to 5 bleeding 23.4% vs 9.6%. Across nine tMCS trials (1,059 patients), 6-month mortality HR 0.87 (95% CI 0.74 to 1.03); STEMI-CS without CPR over 10 minutes, HR 0.77 (95% CI 0.61 to 0.97).
- Over half of DanGer Shock bleeds occurred more than 6 hours after device removal. The hemodynamic targets in the algorithms are acknowledged as unvalidated.

CAVEATS

- Methods for evidence selection, consensus and grading are not described, so the strength of each suggestion rests on the panel's judgement.
- The central mAFP position rests on one open-label trial of 360 patients with an upper confidence limit of 0.99; the effect modifiers cited (systolic pressure above about 80 to 85 mm Hg, age above 77, congestion) come from subanalyses.
- The panel includes trial investigators, and several authors report ties to the maker of the only device with a positive trial. Volume benchmarks are European and observational.

How it fits. The document folds DanGer Shock, ECLS-SHOCK, ECMO-CS, EURO SHOCK and STEMI-DTU into SCAI staging and the SHARC classification, and positions VA-ECMO for combined circulatory and respiratory failure, biventricular collapse or selected refractory arrest. Left ventricular unloading on ECMO (UNLOAD-ECMO and EULODIA are ongoing) and mAFP in non-STEMI, heart failure-related shock and post-arrest coma remain untested. No accompanying editorial or independent critique was found.

2. French ICU guideline on atrial fibrillation: no routine anticoagulation for new-onset AF

CONSIDER LOCALLY Labbé et al, Ann Intensive Care 2026 · Society guideline, modified GRADE and Delphi, 18 recommendations · Certainty: Very low · [PDF](#) · [Briefing](#)

Bottom line. The French Intensive Care Society (SRLF) issued 18 recommendations on atrial fibrillation (AF) in adult ICU patients, all with strong panel agreement; two are graded (GRADE 2+) and 16 are expert opinion. The most consequential position departs from the cardiology default: for new-onset AF (NOAF) under 48 hours without cardioversion, therapeutic anticoagulation is not suggested, and beyond 48 hours the decision is individualized to thrombotic and bleeding risk.

Population: Critically ill adults with new-onset or pre-existing AF at any point in the ICU stay · **Scope:** 24 PICO questions on echocardiography, triggers, rate or rhythm control, cardioversion, drugs and anticoagulation · **Evidence:** Individual expert searches; two single RCTs behind the graded recommendations; observational sepsis cohorts

RESULTS

- Rhythm control is favoured in NOAF during cardiogenic shock, with electrical cardioversion in ventilated patients. Amiodarone or propafenone is suggested first line in sepsis without severe left ventricular dysfunction (209-patient RCT, sinus rhythm at 24 h 72.8% vs 67.3%); beta-blockers for rate control without shock or ventricular dysfunction, IV amiodarone with it.
- In a propensity-matched sepsis and AF cohort, therapeutic anticoagulation increased bleeding (8.6% vs 7.2%; RR 1.21, 95% CI 1.10 to 1.32) without fewer ischemic strokes (1.3% vs 1.4%; RR 0.94, 95% CI 0.77 to 1.15). In FAST (94 intubated septic patients), 7% had an arterial thrombotic event and 19% a major bleed.
- Unfractionated heparin is preferred over low-molecular-weight heparin when anticoagulating, and chronic anticoagulation is held in the acute phase except at very high thrombotic risk.

CAVEATS

- There was no formal systematic review; each expert searched individually, so study selection may be uneven. Strong agreement reflects panel consensus and says little about certainty.
- The anticoagulation positions rest on observational cohorts with confounding by indication and on the 94-patient FAST pilot, led by the first author.
- Several panellists disclosed ties to a landiolol manufacturer (no recommendation favours landiolol). Patients on Impella or ECMO are not addressed, and the panel is entirely French and Belgian.

How it fits. The 2024 ESC AF guideline applies anticoagulation at a CHA₂DS₂-VA score of 2 or more in cardiology populations; this guideline argues that ICU NOAF behaves differently, with little early left atrial appendage thrombus. Its potassium position follows TIGHT-K, in which supplementation below 3.6 mmol/L was noninferior to a 4.5 mmol/L threshold after cardiac surgery. No external commentary was found.

3. PELICAN: individualized cardiac index targets during surgery did not reduce organ injury

CONFIRMS PRACTICE Saugel et al, JAMA 2026 · Single-blind RCT, 12 European centres, 1,095 adults · Certainty: Moderate · [PDF](#) · [Briefing](#)

Bottom line. In high-risk adults having elective major abdominal surgery, keeping intraoperative cardiac index at or above each patient's awake resting value with fluids and dobutamine did not reduce the 7-day composite of kidney injury, myocardial injury, severe infection, nonfatal arrest or death: 243/549 (44.3%) vs 256/546 (46.9%), RR 0.94 (95.1% CI 0.83 to 1.08), absolute difference -2.6 percentage points (95.1% CI -8.5 to 3.3). Exploratory 90-day mortality was higher with the protocol: 5.7% vs 2.8%, RR 2.06 (95% CI 1.13 to 3.78).

Population: Adults 45 or older, elective major abdominal surgery of 90 minutes or more, at least one high-risk criterion; sepsis excluded · **Intervention:** Cardiac index held at or above the preoperative resting value (bioreactance) with crystalloid 6 mL/kg/h, 500 mL boluses and dobutamine · **Comparison:** Routine anesthesiologist-directed care, cardiac index recorded but concealed; MAP above 65 mm Hg in both arms · **Outcome:** 7-day composite of AKI, acute myocardial injury, severe infection, nonfatal cardiac arrest or death

RESULTS

- The arms separated: intraoperative cardiac index 3.1 vs 2.7 L/min/m², dobutamine 64.1% vs 0.5%, total fluid 3,500 vs 2,838 mL and red cell transfusion 14.9% vs 10.8%.

- Components at 7 days: AKI 9.6% vs 13.0% (RR 0.74, 95% CI 0.53 to 1.03), myocardial injury 29.8% vs 31.2%, severe infection 21.1% in both. Ninety-day death 31/541 vs 15/540, difference 3.0 percentage points (95% CI 0.6 to 5.4; NNH about 34), unadjusted and exploratory.
- Fragility (Fisher exact, two-sided alpha 0.05, reported counts): reverse fragility index 19 for the primary outcome, so 19 fewer events in the intervention arm would be needed for significance. For 90-day death the fragility index is 2: two more control deaths would remove significance.

CAVEATS

- Clinicians were unblinded, and infection, cardiac arrest and death were assessed at sites; creatinine and troponin were protocolized and centrally adjudicated.
- The intervention bundled extra fluid with dobutamine, oxygen delivery was not measured, and bioreactance is not a reference method. Causes of death are not reported in the main article.
- Funded by the monitor manufacturer and run in university centres. Emergency, septic and cardiac surgical patients were not studied.

How it fits. OPTIMISE (RR 0.84, 95% CI 0.71 to 1.01) and OPTIMISE II (adjusted OR 1.03, 95% CI 0.84 to 1.25) found no clear benefit from flow-guided therapy, and iPEGASUS found more complications (OR 1.87, 95% CI 1.03 to 3.39). PELICAN tested whether restoring each patient's own baseline would avoid the overtreatment of maximization; the larger trials now show no benefit from fluid and inotrope flow targets in patients without demonstrated hypoperfusion. No editorial or external commentary was found.

4. LATE-MT: thrombectomy 24 to 72 hours after large-vessel stroke improved function, with more hemorrhage

WATCH Yang et al, N Engl J Med 2026 · PROBE RCT, 35 Chinese stroke centres, 336 adults · Certainty: **Moderate** · [PDF](#) · [Briefing](#)

Bottom line. In adults with anterior circulation large-vessel occlusion and a favourable CT perfusion profile 24 to 72 hours after onset, thrombectomy plus medical care shifted the 90-day modified Rankin scale (mRS) distribution toward better function: common OR 1.74 (95% CI 1.19 to 2.55; P = 0.005). Excellent outcome (mRS 0 to 1) was 33.5% vs 18.0% (NNT about 7), at the cost of symptomatic intracranial hemorrhage (ICH) in 4.8% vs 0% and numerically higher 90-day mortality (6.0% vs 1.8%).

Population: Anterior LVO, NIHSS 6 or more, 24 to 72 h from last known well, core under 50 mL, mismatch ratio 1.8 or more ·

Intervention: Endovascular thrombectomy within 60 minutes of randomization plus medical care · **Comparison:** Chinese guideline-based medical care alone · **Outcome:** Ordinal mRS at 90 days

RESULTS

- Thrombectomy was performed in 96.4% with successful reperfusion in 94.6%; median core 4.0 mL and median 38.5 hours to randomization. Death or dependency 51.5% vs 64.7% (RR 0.80, 95% CI 0.66 to 0.96; NNT about 8); hospital stay 2.4 days longer (95% CI 0.6 to 4.2).
- Any ICH 28.3% vs 5.5% (OR 6.82, 95% CI 3.21 to 14.47; NNH about 5); symptomatic ICH 8/166 vs 0/164 (NNH about 21). Deaths 10 vs 3 (OR 3.48, 95% CI 0.94 to 12.89; NNH about 24, nonsignificant), five of the ten from hemorrhage.
- The primary outcome is ordinal, so no fragility index applies. The 48 to 72 hour stratum gave a common OR of 1.61 (95% CI 0.89 to 2.92).

CAVEATS

- 97.6% Han Chinese, with large-artery atherosclerosis in 81.0% and 89.9% of the two arms and atrial fibrillation in about 9%, unlike Western cohorts dominated by cardioembolism.
- Care after randomization diverged (tirofiban 75.6% vs 58.9%, osmotherapy 31.5% vs 8.3%, more intubation and ICU care with thrombectomy), and thrombolysis and carotid occlusion were more frequent at baseline in the intervention arm.
- About 31% of screened patients qualified, and 336 patients cannot estimate mortality precisely.

How it fits. DAWN and DEFUSE 3 established imaging-selected thrombectomy up to 24 hours, and observational series suggested benefit beyond that. The effect size here resembles the earlier-window trials. An independent commentator quoted by TCTMD called it the first randomized evidence of benefit beyond 24 hours and called for replication outside China; no NEJM editorial could be opened.

5. High-flow nasal oxygen vs standard oxygen in hypoxemic failure: fewer intubations, no mortality effect

CONFIRMS PRACTICE Zhu et al, BMC Pulm Med 2026 · Meta-analysis with TSA, 10 RCTs, 3,162 adults · Certainty: **Low** · [PDF](#) · [Briefing](#)

Bottom line. Pooling 10 randomized trials including SOHO, high-flow nasal cannula (HFNC) as initial support in acute hypoxemic respiratory failure (AHRF) reduced intubation compared with standard oxygen therapy (SOT): 458/1,597 vs 540/1,565, RR 0.85 (95% CI 0.77 to 0.93), 52 fewer per 1,000 (NNT about 19), low certainty. All-cause mortality did not differ: RR 1.01 (95% CI 0.88 to 1.16), moderate certainty. Trial sequential analysis (TSA) found that the accrued sample was 36.8% of the required information size.

Population: Adults with AHRF of any cause, from emergency department dyspnea to immunocompromised ICU patients ·

Intervention: Heated, humidified HFNC at 20 L/min or more as initial support · **Comparison:** Nasal prongs, Venturi, face or non-rebreather mask · **Outcome:** Endotracheal intubation; all-cause mortality

RESULTS

- HIGH and SOHO carried 85.6% of the intubation weight; omitting either made the pooled result nonsignificant, with the point estimate still favouring HFNC. I2 was 40% for intubation and 0% for mortality.
- TSA: required information size 8,601; the cumulative Z-curve crossed the conventional boundary and neither the monitoring nor the futility boundary. The conclusion held at a 10% or 15% relative risk reduction and at 90% power.
- Subgroups with PaO₂/FiO₂ of 200 mm Hg or less, COVID-19 or no immunocompromise favoured HFNC without significant interaction. Crude pooled counts give an NNT of about 17.

CAVEATS

- Intubation is discretionary in unblinded trials, and its definition varied; in SOHO it was a secondary outcome without multiplicity adjustment.
- The two-arm restriction, added after registration, appears to remove FLORALI and RECOVERY-RS and shrinks the information size. The TSA effect assumption came from SOHO, which also supplies much of the data.
- Delayed intubation after HFNC failure, time to intubation and ICU stay were not synthesized.

How it fits. The direction matches earlier trials and meta-analyses, which showed fewer intubations without a mortality effect, and SOHO itself was neutral on 28-day mortality. Commenting on SOHO, Critical Care Reviews noted that its intubation result was secondary and unadjusted, leaving the case for HFNC resting on intubation avoidance, comfort and physiology. No commentary on this review was found.

6. Furosemide stress test in AKI: informative on trajectory, unproven as a trigger for early KRT

WATCH Tran et al, Crit Care Med 2026 · Diagnostic meta-analysis, 20 studies, 1,979 patients · Certainty: **Low** · [PDF](#) · [Briefing](#)

Bottom line. Across 20 mostly small studies of the standardized furosemide stress test (FST; nonresponse is under 200 mL of urine in 2 hours), nonresponse predicted progression to stage 3 AKI with sensitivity 0.69 and specificity 0.88 (AUC 0.89), and kidney replacement therapy (KRT) initiation with sensitivity 0.81 and specificity 0.75 (AUC 0.79). Two RCTs using nonresponse to trigger early KRT showed no mortality difference: RR 1.00 (95% CI 0.79 to 1.27). Certainty was low or very low throughout.

Population: Critically ill adults and children with AKI; 14 of 20 studies from low- and middle-income countries · **Index test:**

Furosemide 1 or 1.5 mg/kg IV; nonresponse below 200 mL in 2 hours · **Outcomes:** Stage 3 AKI, KRT initiation, short-term mortality, KRT liberation · **Trials:** Early vs standard KRT in nonresponders, 2 RCTs, 212 patients

RESULTS

- Progression: a 33.5% pretest probability rose to 74.8% with nonresponse (LR+ 5.88) and fell to 15.2% with response (LR- 0.36).
- Mortality: sensitivity 0.56, specificity 0.76, AUC 0.75. KRT liberation (3 studies, 177 patients): AUC 0.89, with a response raising the probability of successful liberation from 63.3% to 91.6%; specificity 0.87 (95% CI 0.51 to 0.98).
- The early KRT comparison was null (risk difference 0.002), so no NNT applies.

CAVEATS

- Incorporation bias: clinicians who knew the FST result decided on KRT in many studies, inflating apparent accuracy for KRT initiation; six studies derived thresholds post hoc.
- The liberation estimate rests on three studies, one of which preselected patients with spontaneous diuresis. The two RCTs differed in modality (CVVH vs intermittent hemodialysis) and population.
- Hypoalbuminemia and hemodynamic status could not be assessed, and some patient counts differ between tables and text.

How it fits. Results agree with earlier FST meta-analyses (Chen 2020; Zhao 2026), and the null trial result aligns with the timing trials (AKIKI, IDEAL-ICU, STARRT-AKI), in which earlier KRT did not improve survival. Nonresponse appears to identify sicker kidneys without identifying patients who benefit from earlier dialysis. FST-guided liberation from CRRT has not been tested prospectively. No external commentary was found.

7. ESC and EUSEM consensus on acute heart failure in emergency settings

CONFIRMS PRACTICE Miró et al, Eur Heart J 2026 · Multisociety clinical consensus statement, 27 authors · Certainty: **Very low** · [PDF](#) · [Briefing](#)

Bottom line. This consensus from the Association for Acute CardioVascular Care, the Heart Failure Association and the European Society for Emergency Medicine (EUSEM) organizes prehospital and emergency department care of acute heart failure (AHF) around four phenotypes. It sets numeric checkpoints: noninvasive ventilation (NIV) failure judged after the first hour, diuretic response (urine output of at least 150 mL/h and/or spot urine sodium of 50 to 70 mEq/L) assessed within 6 hours, and early ICU admission, preferably at a cardiogenic shock hub, for hypoperfused patients.

Population: Adults with suspected or confirmed AHF under emergency medical services or emergency department care · **Scope:** Diagnosis, ventilation, decongestion, vasodilators, vasopressors and inotropes, disposition · **Evidence:** Mostly registries (ADHERE-EM, EHMRG, EAHFE) and a few RCTs; no described search or grading

RESULTS

- Furosemide 40 mg IV if diuretic naive and at least the total oral daily dose otherwise; inadequate response triggers doubling (maximum bolus 250 mg), then sequential nephron blockade. A creatinine rise above 0.3 mg/dL, seen in about one third of patients, should not halt decongestion.
- Vasodilators for systolic pressure above 110 mm Hg, limiting the fall to 25% or less in the first hour. Norepinephrine is the preferred vasopressor in shock and dobutamine the first-line inotrope for systolic pressure below 90 mm Hg with hypoperfusion; targets include mixed venous saturation of at least 60%.
- EHMRG and MEESSE-AHF are the best-validated emergency department risk scores (c-statistics 0.80 to 0.84).

CAVEATS

- No methodology, evidence grading or voting is described, and the document relies heavily on registries run by author groups.
- Some statements exceed their data: the claim that stopping GDMT doubles 30-day mortality is confounded by severity, and advice to avoid norepinephrine when diastolic pressure exceeds 65 mm Hg lacks outcome data.
- Cardiogenic shock receives brief treatment without SCAI staging or MCS selection. Four authors report ties to Abiomed or Johnson & Johnson.

How it fits. It updates the 2015 joint emergency medicine and cardiology paper; for shock it should be read alongside the Chieffo consensus. Lung ultrasound is presented as more accurate than rales; in a commentary this week on the 2026 lung ultrasound recommendations, Volpicelli and colleagues note that B-line burden has established prognostic weight in decompensated heart failure while numeric thresholds for treatment decisions remain unvalidated. No external commentary was found.

8. Brachial cuff MAP exceeded radial MAP by more than 11 mm Hg in 18% of patients on vasopressors

WATCH Putowski et al, Crit Care Med 2026 · Prospective cross-sectional cohort, 13 Polish ICUs, 303 adults · Certainty: **Very low** · [PDF](#) · [Briefing](#)

Bottom line. In stabilized ICU patients receiving vasoactive agents, the noninvasive brachial-to-radial arterial pressure gradient (NIBR-APG; same-arm oscillometric cuff MAP minus invasive radial MAP) exceeded 11 mm Hg in 56 of 303 (18.4%). Norepinephrine-equivalent (NEE) dose was the only independent associate (OR 1.05, 95% CI 1.01 to 1.10 per 0.1 µg/kg/min). Patients with a gradient had higher lactate (2.7 vs 1.3 mmol/L) and higher unadjusted ICU mortality (48.0% vs 30.1%).

Population: Adults with a radial line on vasoactive agents after initial stabilization; MCS excluded · **Exposure:** Same-arm brachial cuff MAP minus radial MAP, paired averaged readings after a fast-flush test · **Comparison:** Gradient of 11 mm Hg or less · **Outcome:** Incidence of a gradient above 11 mm Hg; association with NEE, lactate and capillary refill

RESULTS

- With vs without a gradient: NEE 0.23 vs 0.10 µg/kg/min, capillary refill 3.0 vs 2.5 s, SOFA 11 vs 10, vasopressin 25.0% vs 8.9%.
- Radial MAP was 74.0 vs 80.0 mm Hg and brachial MAP 89.0 vs 82.0 mm Hg. A negative gradient (radial above brachial) occurred in 76 patients.
- ICU length of stay, days with NEE above 0.1 µg/kg/min and digital ischemia did not differ. Mortality was unadjusted and its counts do not reconcile, so no NNH is derivable.

CAVEATS

- Femoral or aortic pressure was never measured; the 11 mm Hg threshold was validated in cardiac surgery, and oscillometric cuffs overestimate MAP at low pressures.
- A single cross-sectional reading cannot establish direction: dose may cause the gradient, or the gradient may drive dose escalation.
- Numerical inconsistencies include the median gradient (4.5 vs 4.0 mm Hg, text vs table) and the NEE odds ratio (1.68 in the abstract, 1.05 in the full text). Monitors were not standardized.

How it fits. Femoral-to-radial gradients are documented after cardiopulmonary bypass and with high-dose norepinephrine in septic shock, and Jacquet-Lagrèze (2021) validated the brachial screen mostly in cardiac surgery. The authors suggest radial underestimation may partly explain the shorter vasopressor exposure with noninvasive monitoring in EVERDAC (N Engl J Med 2025), a hypothesis this study cannot test. Monitoring guidelines do not address the gradient. No external commentary was found.

9. Decompressive craniectomy in TBI: no functional benefit across eight adult trials

CONFIRMS PRACTICE Bouras et al, Crit Care Resusc 2026 · Meta-analysis with TSA, 8 RCTs, 1,326 adults · Certainty: **Low** · [PDF](#) · [Briefing](#)

Bottom line. In adults with moderate to severe traumatic brain injury (TBI), decompressive craniectomy (DC) did not reduce unfavourable neurological outcome compared with medical or surgical alternatives: 397/646 (61.5%) vs 391/650 (60.2%), RR 1.00 (95% CI 0.83 to 1.20), low certainty, with the trial sequential analysis crossing the futility boundary. Mortality was 26.5% vs 33.7%, RR 0.84 (95% CI 0.59 to 1.19), with a possible benefit confined to secondary DC for refractory intracranial pressure (ICP).

Population: Adults with moderate to severe TBI in DECRA, RESCUEicp, RESCUE-ASDH, PREDICT-AEDH and four smaller trials ·

Intervention: Primary DC (5 trials) or secondary DC for refractory ICP (3 trials) · **Comparison:** Medical management (4 trials), or craniotomy or craniostomy (4 trials) · **Outcome:** Unfavourable outcome (GOS 1 to 3 or GOS-E 1 to 4) at longest follow-up

RESULTS

- Mortality vs medical management RR 0.59 (95% CI 0.43 to 0.81); vs surgical comparators RR 1.12 (95% CI 0.87 to 1.43). Secondary DC RR 0.61 (95% CI 0.42 to 0.87); primary DC RR 1.10 (95% CI 0.86 to 1.41).
- No effect modification for functional outcome by comparator, hemorrhage, DC type or risk of bias; I2 was 68% for function and 65% for mortality.

- ICU stay mean difference about -1.7 days, nonsignificant and reported inconsistently between text and tables. Pooled primary and mortality results were neutral, so no NNT is derivable.

CAVEATS

- The pooled trials answer different questions: early bifrontal DC, last-tier DC, flap-off at hematoma evacuation, and DC vs craniotomy.
- Dichotomizing GOS-E at 1 to 4 counts upper severe disability as unfavourable, no ordinal analysis was done, and follow-up of 3 to 12 months may miss late recovery.
- Four of eight trials were at high risk of bias, mainly from unblinded assessment, and the futility conclusion rests on a heterogeneous pooled estimate.

How it fits. The Brain Trauma Foundation 2020 update supports secondary DC for late refractory intracranial hypertension on low-certainty evidence, and the authors state their results do not support that recommendation. RESCUEicp found lower mortality with more survivors in a vegetative state or with severe disability, and RESCUE-ASDH found no benefit of primary DC over craniotomy. The authors frame DC as an individualized decision guided by informed consent. No external commentary was found.

10. Women in Swedish ICUs had more, and earlier, limitations of life-sustaining treatment

CONSIDER LOCALLY Hägglöf et al, Ann Intensive Care 2026 (pre-proof) · Nationwide registry cohort, 67 Swedish ICUs, 111,354 adults · Certainty: Low · [PDF](#) · [Briefing](#)

Bottom line. Across 111,354 first ICU admissions in Sweden from 2019 to 2024, a documented limitation of life-sustaining treatment (LST) occurred in 25.3% of women and 23.8% of men, adjusted OR 1.21 (95% CI 1.17 to 1.25) for age and SAPS3. Among 30-day non-survivors, 74.0% of women and 69.8% of men had a limitation (adjusted OR 1.24, 95% CI 1.18 to 1.32). Women received limitations earlier and were more often consulted directly.

Population: Adults at first admission to 67 Swedish ICUs, 2019 to 2024 · **Exposure:** Female sex (legal gender) · **Comparison:** Male sex · **Outcome:** Any documented LST limitation, new or reaffirmed in the ICU

RESULTS

- Limitation was more frequent in women within every mortality risk band (below 30%: 15.0% vs 12.9%; above 60%: 69.9% vs 66.4%). Median time to limitation 2.8 vs 4.5 hours; 30-day mortality after limitation 62.3% vs 65.8%.
- ICU-initiated limitations: withholding invasive ventilation 47.3% vs 42.6%, patient consulted 13.3% vs 11.8%, next of kin consulted 34.4% in both, autonomy cited as a reason 7.8% vs 5.9%.
- Findings held after excluding the COVID-19 period and with ICU as a random intercept.

CAVEATS

- Adjustment was limited to age and SAPS3; frailty, functional status, partner status, advance directives and diagnosis were unmeasured, and adjustment moved the OR from 1.08 to 1.21.
- 23,846 patients were excluded for missing limitation data, and the analyses of reasons and type omit 15 ICUs. Limitations set before ICU admission were counted at time zero, shortening time to limitation in women.
- Pre-proof: some Table 1 percentages appear transposed, and the results text quotes the unadjusted non-survivor estimate.

How it fits. Earlier US and Swedish cohorts found more limitations in women, usually as a secondary finding, and a meta-analysis cited by the authors found less intensive ICU treatment of women overall. The authors frame the finding as a possible deficit in timely goals-of-care discussions with men; unmeasured confounding and clinician bias remain alternative explanations. A separate Swiss nationwide cohort (Amacher, Crit Care 2026) examines when such differences arise. No external commentary was found.

Pattern of the week. Three documents this week (the Chieffo and Miró consensus statements and the Labbé guideline) set out detailed bedside algorithms on mostly expert foundations: one positive randomized trial sits behind the central Impella position, and 16 of 18 AF recommendations are expert opinion. The randomized and pooled evidence was consistently neutral on survival when care was intensified: individualized flow targets (PELICAN), high-flow oxygen (Zhu), early dialysis triggered by the furosemide stress test (Tran) and decompressive craniectomy (Bouras). LATE-MT gained function at the price of hemorrhage, and two observational studies (Putowski, Hägglöf) show variation in what is measured and decided at the bedside.

Issue 776: 84 items catalogued; 10 ranked articles briefed, all from the full-text articles, plus 6 editorial and commentary summaries. Last week's queued commentary (Martin-Loeches, Sepsis without borders, *J Intensive Med*) was retrieved and summarized. AI generated; go to the original paper when in doubt.

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