# JOURNAL WATCHER

SHN Critical Care Medicine · Weekly evidence review

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## THIS WEEK IN BRIEF

Cardiogenic shock and ECMO lead the week. In Medicare claims, VA-ECMO for infarct-related shock was rare, usually combined with another device and linked to 68.6% weighted 30-day mortality; three causal methods disagreed, and the authors judged device comparisons infeasible. The HFSA statement on right heart failure sets out an expert RV support ladder. Two ECPR cohorts point to speed and system design: benefit persisted beyond 60 minutes of ED resuscitation in Korea, and on-scene cannulation in Paris was linked to twice the intact survival.

Chlorhexidine added to mechanical oral care did not reduce VAP. PROSpect found no ventilator-free day gain from proning or HFOV in pediatric ARDS, with more harm prone. Occlusions during mask NIV estimated effort well, saline raised chloride by about 2 mmol/L in BaSICS, five liver societies agreed one ACLF definition, and A-Stop found that two biomarkers plus culture could have ruled out Candida in 47% of treated patients.

**Strategic priorities.** Cardiogenic shock, MCS and ECMO: Kochar (rank 1) on VA-ECMO in infarct-related shock; Kanwar (rank 3), the HFSA right heart failure statement with its RV support table; Sim (rank 6) on ECPR timing; Soumagnac (rank 7) on on-scene vs hospital-based ECPR. Ventilation: Murgolo (rank 4) on occlusions during NIV and PROSpect (rank 9) on proning and HFOV in children. The Condello and El Dsouki editorial on selective coronary hypoxemia during VA-ECMO was summarized and not briefed. No supplementary strategic article was added this week.

**+7.7**
percentage points in 30-day survival with ECPR started more than 60 minutes after ED arrival, observational (Sim)

**1.08**
adjusted incidence rate ratio for VAP when chlorhexidine was added to mechanical oral care (Anushapreethi)

**47%**
of patients on empirical antifungals were negative on BDG, CandID and blood culture, NPV 98.6% (McMullan, A-Stop)

## AT A GLANCE

| # | Study | Design | Result in one line | Signal |
|---|---|---|---|---|
| 1 | **Kochar: ECMO in MI shock**<br>Kochar et al, J Am Heart Assoc 2026 | Medicare claims cohort, 102,718 admissions | ECMO 30-day death 68.6%; causal methods disagreed | Watch |
| 2 | **Anushapreethi: CHX for VAP**<br>Anushapreethi et al, Crit Care 2026 | Cluster crossover RCT, 6 ICUs, 1,035 adults | VAP adjusted IRR 1.08 (95% CI 0.84 to 1.38) | Confirms practice |
| 3 | **Kanwar: right heart failure**<br>Kanwar et al, J Card Fail 2026 (in press) | HFSA scientific statement, ungraded | MAP 70 to 75 mm Hg; RV device escalation and weaning table | Confirms practice |
| 4 | **Murgolo: occlusions during NIV**<br>Murgolo et al, Am J Respir Crit Care Med 2026 | Physiological method comparison, 60 adults | K 0.71 oronasal, 0.80 full-face; excess effort AUC 0.97 to 0.98 | Consider locally |
| 5 | **Zampieri: chloride in BaSICS**<br>Zampieri et al, Ann Intensive Care 2026 | Secondary analysis of BaSICS RCT, 3,482 adults | Day 2 chloride +2.15 mmol/L with saline; fluid share 0.7% | Confirms practice |
| 6 | **Sim: ECPR timing**<br>Sim et al, Eur Heart J Acute Cardiovasc Care 2026 | Korean registry target trial emulation, 58,668 adults | 30-day survival +15.0 points early, +7.7 beyond 60 min | Consider locally |
| 7 | **Soumagnac: on-scene ECPR**<br>Soumagnac et al, Crit Care 2026 | Paris registry cohort, 1,031 ECPR patients | CPC 1 to 2: 13% vs 6%; adjusted OR 2.3 (95% CI 1.4 to 3.9) | Watch |
| 8 | **AASLD et al: ACLF definition**<br>AASLD et al, Hepatology 2026 | Multisociety Delphi consensus, 81 statements | Liver failure required (bilirubin 5 mg/dl, INR 1.5); three grades | Consider locally |
| 9 | **Curley: PROSpect pediatric ARDS**<br>Curley et al, Lancet 2026 | Factorial adaptive RCT, 424 children | No ventilator-free day gain; more airway and skin harm prone | Confirms practice |
| 10 | **McMullan: A-Stop biomarkers**<br>McMullan et al, Lancet Microbe 2026 | Diagnostic accuracy study, 43 ICUs, 1,225 patients | BDG, CandID and culture NPV 98.6%; 47% triple-negative | Watch |

Signals: CHANGE PRACTICE CONSIDER LOCALLY CONFIRMS PRACTICE WATCH Click a title to jump to its card · This week on SharePoint

# The studies

## 1. ECMO in older patients with infarct-related shock: rare, usually combined with another device, and beyond causal comparison in claims data

WATCH Kochar et al, J Am Heart Assoc 2026 · Medicare claims cohort, 102,718 admissions · Certainty: **Very low** · PDF · Briefing

**Bottom line.** Among 102,718 Medicare fee-for-service admissions with myocardial infarction-related cardiogenic shock (MI-CS), venoarterial ECMO (VA-ECMO) use rose from 0.8% to 1.8% between 2016 and 2023, stayed concentrated in large teaching hospitals and was usually combined with another device. Weighted 30-day mortality with ECMO was 68.6% (95% CI 64.1% to 73.6%). Three prespecified causal methods gave discordant comparisons against Impella, the intra-aortic balloon pump (IABP) and medical therapy, and the authors, in a plan agreed with the FDA, conclude that claims data cannot support valid device effectiveness estimates.

**Population:** Medicare beneficiaries with a primary MI code and a secondary cardiogenic shock code, 2016 to 2023 • **Exposure:** First device started within 2 days of admission: ECMO, Impella or IABP • **Comparison:** No mechanical circulatory support by day 2 (medical therapy) • **Outcome:** 30-day all-cause mortality; 30-day death or rehospitalization

### RESULTS

- Comparative cohort of 23,658: observed 30-day mortality 67.9% with ECMO, 58.5% Impella, 35.6% IABP and 44.7% medical therapy. Inverse probability weighting (IPTW) gave ECMO risk differences of 11.1 points (95% CI 5.8 to 16.7) vs Impella and 24.8 (95% CI 20.2 to 30.0) vs medical therapy, with imbalances persisting after weighting.
- A clone, censor and weight design brought ECMO and Impella together at 53.6% and 53.5%; ECMO stayed 15.6 points (95% CI 8.1 to 26.9) above medical therapy. A planned instrumental variable analysis was abandoned.
- ECMO recipients were younger, more often post-arrest (21.1% vs 11.3%) and intubated (47.1% vs 14.8%); 68.5% also had another device. The estimates are not causal, so no NNT or NNH is derivable.

### CAVEATS

- Claims carry no lactate, vasoactive dose, SCAI stage or neurological status, so shock severity, the main driver of device choice and death, is unmeasured.
- Time zero was admission because shock onset cannot be dated; venting and escalation cannot be told apart, and device complications were not captured.
- US fee-for-service Medicare only, with 723 ECMO patients in the comparative cohort. One author is an Abiomed employee.

***How it fits.*** *ECLS-SHOCK found no benefit of routine early VA-ECMO in a younger cohort, most after resuscitation, and DanGer Shock supported the microaxial flow pump in selected STEMI shock. This cohort adds an older, unselected population with crude ECMO mortality near 70%. The main lesson is methodological: device rankings from administrative data without shock severity deserve little weight, whichever device they favour. No external commentary was found.*

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## 2. Adding chlorhexidine to mechanical oral care did not reduce VAP, and ICU stay was about one day longer

CONFIRMS PRACTICE Anushapreethi et al, Crit Care 2026 · Cluster crossover RCT, 6 ICUs, 1,035 adults · Certainty: **Low** · PDF · Briefing

**Bottom line.** In six medical ICUs of one Indian tertiary hospital, adding 0.12% chlorhexidine (CHX) rinse twice daily to a standardized bundle of tooth-brushing, moisturization and suctioning did not reduce ventilator-associated pneumonia (VAP): 18.75 vs 16.90 episodes per 1,000 ventilator-days, adjusted incidence rate ratio (IRR) 1.08 (95% CI 0.84 to 1.38). 28-day mortality did not differ, and ICU stay was 0.89 days longer with CHX (95% CI 0.19 to 1.58).

**Population:** Adults ventilated 48 hours or more; mean APACHE II 19.7 and SOFA 13.4; mainly neurological and respiratory admissions • **Intervention:** Bundle plus 0.12% CHX oral rinse twice daily after brushing • **Comparison:** Identical nurse-delivered bundle without CHX; AB/BA crossover with 9-month periods • **Outcome:** VAP (CPIS above 6) per 1,000 ventilator-days

### RESULTS

- VAP occurred in 77 patients with CHX and 100 without; crude IRR 1.11 (95% CI 0.83 to 1.50), and a negative binomial model gave the same adjusted IRR.

- 28-day mortality 26.4% vs 28.7% (adjusted OR 0.87, 95% CI 0.65 to 1.15); ventilator-free days, oral health and pain scores did not differ.
- The primary outcome is an incidence rate in a cluster design, so no fragility index applies, and the null results give no NNT.

**CAVEATS**

- One centre and six clusters, with no sample size calculation; GEE inference remains fragile despite small-sample correction.
- VAP was defined by CPIS and judged by an unblinded team; bundle compliance rates were not recorded.
- Exposure was asymmetric (637 vs 398 patients) without explanation, and the longer stay may partly reflect numerically higher survival with CHX.

***How it fits.*** *Cochrane estimated a VAP reduction with CHX (RR 0.67, 95% CI 0.47 to 0.97) without a mortality effect, a 2024 network meta-analysis found no benefit at any concentration, and another network meta-analysis reported excess mortality (OR 1.25, 95% CI 1.05 to 1.50). De-adoption within an oral-care bundle in the Canadian CHORAL trial was not associated with harm. This trial adds randomized support for removing routine CHX outside cardiac surgery. No external commentary was found.*

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## 3. HFSA statement on right heart failure: a physiology framework and an operational RV support ladder

CONFIRMS PRACTICE Kanwar et al, J Card Fail 2026 (in press) · HFSA scientific statement, ungraded · Certainty: **Very low** · PDF · Briefing

**Bottom line.** The Heart Failure Society of America (HFSA) statement, the first major North American society statement on right heart failure (RHF) since 2018, treats RHF as a distinct syndrome and organizes acute care around preload, afterload and contractility, plus rhythm, coronary perfusion and ventilation. It sets expert positions on low-dose norepinephrine and vasopressin, a mean arterial pressure (MAP) of 70 to 75 mm Hg, avoidance of high PEEP, awake intubation when feasible and the pulmonary artery pulsatility index (PAPi) for escalation, and gives a device-by-device table for temporary RV support. No position is graded.

**Population:** Adults with acute or chronic RHF, including MI shock, acute-on-chronic heart failure, PE, post-LVAD and post-transplant · **Scope:** Diagnosis, hemodynamic phenotyping, drugs, ventilation, airway and RV temporary MCS · **Evidence:** Literature 2018 to 2025; no systematic search, risk-of-bias assessment or grading

**RESULTS**

- High-risk markers: right atrial pressure above 14 mm Hg, RA/PCWP ratio 0.63 or more, PAPi below 1.5, cardiac index below 2.0 L/min/m2 and SvO2 below 60%, mostly from pulmonary hypertension and LVAD cohorts.
- Inhaled nitric oxide gave no greater PVR fall above 10 ppm; dobutamine is favoured when systolic pressure is below 100 mm Hg, milrinone for pulmonary hypertension-driven failure. The text states that no study has compared MAP targets in RHF.
- Impella RP targets flow above 4 L/min, with escalation to ProtekDuo or VA-ECMO for hypoxemia or biventricular failure; weaning reduces flow by 0.5 to 1.0 L/min every 2 to 3 hours and holds about 2 L/min for 6 to 8 hours before removal.

**CAVEATS**

- No systematic search or evidence grading, and device guidance reflects quaternary-centre experience.
- The ketamine caution extrapolates from a trial in critically ill adults overall (Casey, N Engl J Med 2026) that was not specific to RV failure.
- Several authors, including the corresponding and senior authors, report ties to Abiomed or Johnson & Johnson MedTech. Reviewed as the in-press version.

***How it fits.*** *RV-predominant shock is about 5% of MI cardiogenic shock, while RV dysfunction is present in 30% to 40%, so the framework complements the left-sided device evidence of DanGer Shock and ECLS-SHOCK. Nothing cited shows that RV-specific temporary MCS improves survival. Only the HFSA press release was found; no independent commentary was found.*

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## 4. End-expiratory occlusion during mask NIV estimated inspiratory effort with interface-specific factors

CONSIDER LOCALLY Murgolo et al, Am J Respir Crit Care Med 2026 · Physiological method comparison, 60 adults · Certainty: **Moderate** · PDF · Briefing

**Bottom line.** In 60 hypoxemic, high-risk patients on NIV after extubation, the airway occlusion pressure (Pocc) from a standard ICU ventilator, multiplied by a conversion factor K, closely estimated the esophageal pressure swing (ΔPes): concordance 0.92 with an oronasal mask and 0.93 with a full-face mask. K was 0.71 (95% CI 0.68 to 0.75) and 0.80 (95% CI 0.79 to 0.81), higher than the 0.66 used in intubated patients. Ventilator P0.1 and plateau pressure were unreliable through a mask.

**Population:** Post-extubation, PaO2/FiO2 below 300, PaCO2 45 mm Hg or less, at least one reintubation risk factor • **Index tests:** Ventilator Pocc with predicted ΔPes, dynamic transpulmonary pressure (ΔPL,dyn) and compliance; ventilator P0.1; plateau pressure • **Reference:** Calibrated esophageal balloon: ΔPes, esophageal P0.1, measured ΔPL,dyn • **Design:** Two 1-hour NIV sessions, interface order randomized, dual-limb ICU ventilator

### RESULTS

- Predicted ΔPes below -9 cm H2O identified excessive effort with AUC 0.98 oronasal and 0.97 full-face; precision fell at higher effort.
- Ventilator P0.1 concordance with esophageal P0.1 was 0.17 and 0.03, and a stable plateau was obtained in only 22% and 10%. Leak up to 30% did not alter Pocc or K.
- Exploratory: 14 of 60 (23%) were reintubated within 7 days; with the oronasal mask, median Pocc was -16 vs -8 cm H2O in those reintubated vs not, and higher predicted ΔPL,dyn was associated with reintubation (OR 1.34, 95% CI 1.10 to 1.63).

### CAVEATS

- Post-extubation patients only; de novo hypoxemic failure, helmets and single-limb NIV devices were not studied, and leak compensation was off.
- Conversion factors were derived and validated internally in the same cohort, with 1-hour sessions.
- The reintubation analysis rests on 14 events in univariable models and defines no intubation threshold.

***How it fits.*** *Esophageal manometry studies showed that large ΔPes and ΔPL,dyn predict NIV failure earlier than tidal volume; this study offers a bedside surrogate without a balloon. In an editorial this week on a separate post-extubation study (Thille and colleagues), Grieco, a co-author here, with Azoulay and De Jong, note that epidemiological high-risk definitions yield failure rates of only 10% to 20% and that physiology-guided tailoring has never been tested. No commentary on this study was found.*

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## 5. BaSICS chloride analysis: saline raised serum chloride by about 2 mmol/L, and fluid explained little of its variation

CONFIRMS PRACTICE Zampieri et al, Ann Intensive Care 2026 · Secondary analysis of BaSICS RCT, 3,482 adults · Certainty: **Moderate** · PDF · Briefing

**Bottom line.** In the 3,482 BaSICS participants with chloride measured, randomization to 0.9% saline vs Plasma-Lyte 148 raised serum chloride by 2.15 mmol/L more by day 2 (95% CI 1.76 to 2.53), or 1.47 mmol/L per 100 mmol of extra chloride. The difference was about 3.0 mmol/L at an estimated glomerular filtration rate (eGFR) of 30 and 1.8 at 90. In a variance partition, the fluid accounted for 0.7% of modeled variation in chloride and baseline chloride for 47.3%.

**Population:** BaSICS adults needing fluid expansion with an AKI risk factor and chloride measured; 53.5% elective postoperative • **Intervention:** 0.9% saline (154 mmol/L chloride) • **Comparison:** Plasma-Lyte 148 (98 mmol/L chloride) • **Outcome:** Serum chloride over days 1 to 3; no clinical outcomes analyzed

### RESULTS

- Chloride load gap 145.7 mmol by day 2 at similar volumes. Each 15 mL/min/1.73 m2 higher eGFR reduced the day 2 difference by 0.29 mmol/L (95% credible interval 0.12 to 0.46).

- Within saline recipients, the observational slope was +0.31 mmol/L per 100 mmol, about one fifth of the randomized ratio.
- Between-patient differences explained 24.5% and day-to-day fluctuation 26.9% of variation. The outcome is continuous, so no NNT or fragility index applies.

**CAVEATS**

- Chloride was ordered at clinician discretion in one third of participants, who were slightly sicker, so informative sampling is likely; no data beyond day 3.
- The fluids also differ in acetate, gluconate, magnesium and potassium, and non-study fluids and drug diluents were not counted.
- Baseline chloride was near normal and volumes modest, which limits extrapolation to large-volume septic resuscitation.

***How it fits.*** *SPLIT, SALT-ED, SMART, BaSICS and PLUS showed chloride separations of roughly 1 to 2 mmol/L with neutral or near-neutral mortality, and the BEST-Living meta-analysis gave a high posterior probability of a small benefit with balanced crystalloids. The authors speculate that chloride may be too small a lever, or that benefit concentrates where separation is largest, such as reduced eGFR. No external commentary was found.*

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## 6. ECPR remained associated with higher survival when started more than 60 minutes after ED arrival

CONSIDER LOCALLY Sim et al, Eur Heart J Acute Cardiovasc Care 2026 · Korean registry target trial emulation, 58,668 adults · Certainty: **Low** · PDF · Briefing

**Bottom line.** Among adults with refractory out-of-hospital cardiac arrest (OHCA) still in CPR at successive landmarks after emergency department (ED) arrival, starting extracorporeal CPR (ECPR) in the next window was associated with higher 30-day survival at every landmark: 31.0% vs 16.0% at 15 minutes (risk difference +15.0 points, 95% CI 8.0 to 22.0), 21.6% vs 7.2% at 30 minutes and 10.9% vs 3.2% beyond 60 minutes (+7.7, 95% CI 3.7 to 11.7). Neurological benefit was smaller and less robust at the latest landmark.

**Population:** Adults 18 to 80, presumed cardiac OHCA, at least 15 minutes of ED CPR, 2016 to 2023 • **Intervention:** ECPR started 15 to 30, 30 to 60 or more than 60 minutes after ED arrival (909 treated) • **Comparison:** Ongoing CPR without ECPR in that window, overlap weighted on 22 covariates • **Outcome:** 30-day survival; CPC 1 to 2

**RESULTS**

- Favourable neurological outcome: +9.4 points (95% CI 3.4 to 15.5), +8.8 (5.6 to 12.0) and +3.2 (0.4 to 6.1). Observational NNT about 7 at the first two landmarks and about 13 beyond 60 minutes.
- Crude 30-day survival with conventional CPR was 2.4%, against a weighted control rate of 16.0% at 15 minutes, showing how strongly overlap weighting focuses on ECPR-like patients.
- Landmarks at 90 and 120 minutes gave intervals including zero, and the 60-minute neurological difference lost significance in two sensitivity analyses.

**CAVEATS**

- The registry lacks end-tidal CO2, lactate, signs of life, cannulation feasibility and hospital identifiers, so selection by indication is the dominant threat.
- Time zero was ED arrival, so prehospital low-flow time was unmeasured; 280 treated patients carry the 60-minute estimate.
- Korean paramedics generally cannot terminate resuscitation in the field, which limits transfer to other systems. Cannulation complications were not reported.

***How it fits.*** *ARREST, Prague-OHCA and INCEPTION gave mixed results, and observational data consistently show worse outcomes with longer low-flow time. The landmark design addresses the immortal time problems of earlier timing comparisons. The authors argue that a rigid 60-minute ED cut-off may be too restrictive for selected patients and reject reading the data as support for delay. No external commentary was found.*

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## 7. On-scene ECPR in Greater Paris: shorter low-flow time and about twice the neurologically intact survival

WATCH Soumagnac et al, Crit Care 2026 · Paris registry cohort, 1,031 ECPR patients · Certainty: **Low** · PDF · Briefing

**Bottom line.** Among 1,031 adults who received ECPR for refractory OHCA from 2011 to 2024, cannulation at the scene by a single physician-led mobile team was associated with survival to discharge with Cerebral Performance Category (CPC) 1 or 2 in 34 of 256 (13%), against 43 of 775 (6%) with hospital-based ECPR: adjusted OR 2.3 (95% CI 1.4 to 3.9). Median CPR-to-ECPR time was 70 vs 93 minutes, and the association persisted after adjustment for that interval.

**Population:** Adults with OHCA refractory to 20 minutes of advanced life support and VA-ECMO attempted; median age 50, 67% shockable • **Intervention:** On-scene open femoral cannulation by a mobile team (256) • **Comparison:** Transport under manual or mechanical CPR and in-hospital percutaneous cannulation (775) • **Outcome:** Survival to hospital discharge with CPC 1 or 2

### RESULTS

- Observational NNT about 13 from the crude difference. The direction held across all nine adjusted models (ORs 2.1 to 3.2), including 1:1 matching (OR 2.1, 95% CI 1.1 to 4.1).
- Survival to discharge 16% vs 8%; brain death 32% vs 12% and organ donation 11% vs 2%.
- Cannulation-site hemorrhagic shock 11% vs 5%, cannulation failure 6% vs 12%, and overall ECMO complications 23% vs 22%. The abstract IPTW estimate (OR 2.4) matches no row in the full-text table.

### CAVEATS

- Only patients in whom ECPR was attempted are included, selection occurred at different points in each arm, and the eligible denominators are unknown.
- Strategy is nearly collinear with one mobile team and largely one receiving centre, so team and post-arrest care effects cannot be separated.
- Low-flow times were long (93 minutes hospital-based vs 59 in ARREST); reviewed as the accepted manuscript.

***How it fits.*** *No trial has compared on-scene with hospital-based ECPR. ARREST reported 43% survival with a hospital-based model and short low-flow times, which the authors take to suggest that system performance matters more than the delivery model. Read with Sim (rank 6): both point to speed and selection, and neither can isolate a causal effect. No external commentary was found.*

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## 8. Five liver societies agree one global definition and grading of acute-on-chronic liver failure

CONSIDER LOCALLY AASLD et al, Hepatology 2026 · Multisociety Delphi consensus, 81 statements · Certainty: **Low** · PDF · Briefing

**Bottom line.** AASLD, EASL, APASL, ALEH and SOLDA have agreed a single definition of acute-on-chronic liver failure (ACLF): liver failure, meaning bilirubin of at least 5 mg/dl and INR of at least 1.5, in advanced chronic liver disease, plus at least one extrahepatic organ dysfunction or failure. Grade 1 is one dysfunction, grade 2 one failure and grade 3 two or more failures. Organ thresholds follow KDIGO, vasopressor use and oxygenation ratios, and 15 of the 81 statements address critical care.

**Population:** Advanced chronic liver disease (fibrosis F3 or more); type A compensated, type B decompensated • **Scope:** Definition, grading, critical care, transplantation and trial endpoints • **Evidence:** Working-group literature review, Oxford grading, more than 70% agreement, FDA input on endpoints

### RESULTS

- Organ failure: KDIGO AKI stage 2 to 3 or new RRT; West Haven grade 3 to 4 encephalopathy; any vasopressor except for HRS-AKI alone; ventilation for respiratory failure or PaO2/FiO2 225 or less (SpO2/FiO2 244 or less).
- ICU statements: ACLF-specific scores over MELD; benzodiazepines avoided; norepinephrine, then vasopressin and an empiric hydrocortisone trial (B1); no corticosteroids in grade 3 alcohol-related ACLF (B1); time-limited ICU trials reassessed at day 3 to 7 for non-candidates (C2).
- Transplant only when expected 1-year survival exceeds 75% to 80% (B1); late-phase trials could use survival with or without transplant, analysed with competing-risk methods.

**CAVEATS**

- None of the 15 critical care statements is grade A, and ventilation advice is extrapolated from general ICU literature.
- Validation of the new grades is asserted without data, and several prognostic benchmarks come from the older EASL-CLIF grades.
- Grading depends on setting, and multiorgan failure with bilirubin below 5 mg/dl no longer qualifies.

***How it fits.*** *The definition replaces three competing frameworks (EASL-CLIF, NACSELD, APASL), adopting the APASL premise that liver failure is the core of the syndrome while keeping the EASL-CLIF principle that extrahepatic failures drive prognosis. The AASLD press statement describes it as a shared framework; no independent critical care commentary was found.*

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## 9. PROSpect: early prone positioning and HFOV did not increase ventilator-free days in pediatric ARDS

CONFIRMS PRACTICE · Curley et al, Lancet 2026 · Factorial adaptive RCT, 424 children · Certainty: **Moderate** · PDF · Briefing

**Bottom line.** In 424 children (median age 3.3 years) with early moderate-to-severe pediatric ARDS, 86% of them severe, prone positioning for at least 16 hours a day did not increase ventilator-free days to day 28 (median 17.9 vs 17.4; Hodges-Lehmann shift 0.0, 95% CI -0.8 to 1.0), and neither did high-frequency oscillatory ventilation (HFOV) (17.3 vs 18.0; shift -0.3, 95% CI -1.5 to 0.5). The trial stopped for futility and slow enrolment; the posterior probability that the best group used conventional ventilation was 89.2%.

**Population:** Children 2 weeks to 20 years with PALICC-1 moderate-to-severe PARDS within 4 days of intubation; 90% direct lung injury • **Intervention:** Prone at least 16 h a day; open-lung HFOV with twice-daily titration • **Comparison:** Supine; conventional ventilation at 5 to 7 mL/kg and peak pressure 28 cm H2O or less • **Outcome:** Ventilator-free days through day 28

**RESULTS**

- Death by day 28 was 10% overall, similar across arms; organ failure-free days did not differ and the interventions did not interact.
- Prone vs supine: airway plugging 6% vs 2% (rate ratio 4.83, 95% CI 1.38 to 16.82; NNH about 21) and stage 2 or worse pressure injury 6% vs 1% (RR 6.13, 95% CI 1.45 to 25.97; NNH about 19).
- HFOV: hemodynamic instability 13% vs 9% (rate ratio 1.84, 95% CI 1.18 to 2.87; NNH about 22). The primary outcome is continuous, so no fragility index applies.

**CAVEATS**

- Stopped at 424 of a planned 600, with arms unbalanced by adaptive allocation; final power for a 2-day effect was 73.1%.
- Unblinded interventions with an outcome that depends on clinician weaning decisions.
- Mortality of 10% left little room for a survival effect, and rescue proning was not tested.

***How it fits.*** *PROSEVA enrolled adults with a mean age of 58 to 60 years and used mortality as its endpoint, so PROSpect leaves adult proning untouched. The HFOV result aligns with OSCILLATE and OSCAR. A linked Lancet Comment could not be accessed, and no other commentary was found.*

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## 10. A-Stop: two biomarkers plus blood culture could have stopped empirical antifungals in 47% of ICU patients

WATCH · McMullan et al, Lancet Microbe 2026 · Diagnostic accuracy study, 43 ICUs, 1,225 patients · Certainty: **Low** · PDF · Briefing

**Bottom line.** In 1,225 ICU patients started on empirical antifungals for suspected invasive candidiasis, proven infection was present in 4.4%, and no single biomarker reached the target negative predictive value (NPV) of 99%. In a post hoc combination, negative Fungitell (1,3)-beta-D-glucan (BDG), a negative CandID Candida DNA test and negative blood culture gave an NPV of 98.6% (95% CI 97.0 to 99.4), lowering the probability of proven infection to 1.4%; 47.2% of patients were negative on all three.

**Population:** Patients within 24 hours of starting empirical antifungals; predominantly surgical-abdominal, mean SOFA 9.0 • **Index tests:** Fungitell BDG and three Candida DNA tests (Fungiplex, T2Candida, CandID), frozen and batch tested, masked • **Reference:** Proven invasive Candida infection by consensus criteria • **Outcome:** NPV, sensitivity and specificity; results not returned to clinicians

**RESULTS**

- Single-test NPVs were 96.6% to 97.2%. Fungitell plus CandID: NPV 97.5%, sensitivity 75.0%, specificity 48.7%, positive predictive value 6.7%.
- Of 483 triple-negative patients, 7 had proven infection (15.0% of proven cases), all identified by other routine cultures.
- Median antifungal duration was 9 days, and the authors estimate that 81.9% to 89.9% may have received unnecessary therapy.

**CAVEATS**

- Only 54 proven cases drive the sensitivity estimates, and the triple-test strategy was post hoc.
- Frozen batch testing may not reproduce fresh-sample performance or turnaround, and results apply to one BDG platform.
- No clinical decisions were made on the tests, so the safety of stopping is untested.

***How it fits.*** *EMPIRICUS and two risk-based trials found no patient benefit from empirical antifungals. A-Stop supplies the test combination for A-Stop2, a planned randomized trial of 1,226 ICU patients with antifungal days as primary outcome and day 28 survival as safety outcome. No independent commentary was found.*

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**Pattern of the week.** Three observational analyses used formal causal designs with different results. In Kochar's claims cohort, three methods disagreed by more than 10 points on ECMO vs Impella because shock severity was unmeasured; Sim's landmark emulation and Soumagnac's registry found consistent associations favouring earlier or on-scene ECPR while acknowledging selection they could not measure. The randomized evidence was neutral on its primary outcomes (chlorhexidine; proning and HFOV in children), and BaSICS showed a real but small chloride effect. Two expert documents (HFSA, ACLF) codify practice on ungraded or grade B and C support, and two measurement studies (Murgolo, McMullan) offer tools that await outcome trials.

*Issue 777: 94 items catalogued (92 new, 2 cited again); 10 ranked articles briefed, all from the full-text articles, plus 25 editorial, commentary and correspondence summaries. AI generated; go to the original paper when in doubt.*

## References


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