Informe semanal de evidencia en reanimación

Bibliografía correspondiente a la semana del 26 de octubre de 2026

41 registros revisados · 32 directamente relacionados · 6 tangenciales · 3 preclínicos o mecanísticos

Executive Summary

La semana destaca por la organización del transporte tras parada, la selección y rapidez de ECPR, la calidad de las compresiones pediátricas y la interpretación de biomarcadores. El protocolo de Essex se asocia con mejores resultados, especialmente en ritmos desfibrilables, mientras que Nagoya no muestra beneficio neurológico global por nivel hospitalario: son poblaciones y estrategias distintas y no justifican una política universal de destino. En ECPR por infarto, la duración de low-flow se asocia gradualmente con mal pronóstico, pero el punto de corte de 50,9 minutos no es un criterio de exclusión. En pediatría, ICU-RESUS genera hipótesis sobre frecuencia, profundidad y fracción de compresiones que todavía no deben convertirse en objetivos clínicos; el análisis de ECMO posquirúrgica refuerza la vigilancia y la preparación antes del colapso, sin definir un umbral de canulación.

Las implicaciones más inmediatas son de calidad y organización: auditar tiempos hasta flujo efectivo, comprobar la plataforma y matriz de los biomarcadores, detectar desigualdades territoriales de RCP por testigos y evaluar el idioma y la secuencia completa de uso del DEA. Los resultados de formación se interpretan como aprendizaje o desempeño simulado, sin asumir beneficio en supervivencia. Se conservan por separado seis referencias tangenciales, dos experimentos animales y una revisión mecanística. No se identifica una nueva guía, corrección o CoSTR formal entre los 41 registros; las señales de investigación se distinguen de las recomendaciones institucionales.

Control de recuento

Grupo	N	Tratamiento en el informe
Directamente relacionados con RCP/reanimación	32	Incluidos y categorizados
Resultados tangenciales	6	Separados, sin eliminarlos
Preclínicos y mecanismos	3	2 experimentos animales + 1 revisión mecanística
Total de registros únicos	41	41 PMID distintos; 39 abstracts presentes

Criterio de clasificación: cada referencia pertenece a un solo bloque de recuento. La revisión mecanística 16 se separa por su orientación traslacional, sin considerarla un experimento animal. La formación veterinaria 15 es tangencial. Los registros 23 y 24 carecen de abstract en el archivo fuente y no contribuyen a conclusiones de eficacia. La numeración de las fichas conserva la del archivo original. Los abstracts se reproducen en su idioma original; los mensajes y comentarios son análisis crítico en español.

Top 8 de la semana

Selección editorial por relevancia para decisiones, importancia del desenlace y valor crítico. El orden no es una clasificación formal GRADE. El análisis se apoya en los abstracts suministrados; no equivale a una revisión completa de métodos y suplementos.

1. Compresiones pediátricas y supervivencia

Registro 19: Association of Chest Compression Metrics During Pediatric CPR With Intra-Arrest Blood Pressure and Survival Outcomes in the United States: Insights From ICU-RESUS.

Pregunta y diseño: En 543 niños de diez UCI, se estudió si alcanzar durante los primeros diez minutos las metas de frecuencia, profundidad y fracción de compresiones se asociaba con supervivencia al alta. Cumplieron las metas el 46,3%, 25,7% y 88,5%, respectivamente. El análisis observacional estaba integrado en ICU-RESUS: no es una aleatorización de distintas técnicas de compresión.

Resultados: Ninguna meta convencional mostró asociación significativa con supervivencia. Los splines identificaron rangos exploratorios de 130–160 compresiones/min (aRR 1,23; IC95% 1,04–1,46), 23–27 mm en menores de un año (aRR 1,76; 1,14–2,72) y fracción superior al 90% (aRR 1,24; 1,03–1,49). Son asociaciones estimadas en la muestra que generó los propios umbrales.

Análisis crítico: La falta de asociación no prueba que la calidad de RCP sea irrelevante: puede reflejar medición imperfecta, poca variación en determinadas métricas, diferencias de tamaño corporal o confusión por fisiología y gravedad. Optimizar puntos de

corte y evaluarlos en la misma cohorte favorece resultados demasiado optimistas. Los pacientes monitorizados de UCI tampoco representan la parada extrahospitalaria. El registro fuente contiene una unidad anómala de frecuencia (cm3/min) y un IC incompleto; se conserva el abstract literal y se evita reconstruir el dato ausente.

¿Cambia mi práctica? No cambio los objetivos de frecuencia o profundidad a partir de este estudio. Sí refuerza medir la calidad y evaluar protocolos de investigación que integren métricas y perfusión. Antes de adoptar rangos alternativos hacen falta validación externa, análisis por edad y tamaño y ensayos prospectivos con supervivencia neurológica.

PMID / DOI: 42813260 · 10.1161/CIRCOUTCOMES.125.013037

2. Low-flow en ECPR por infarto

Registro 22: Low-flow time and neurological outcomes in AMI patients undergoing ECPR: a retrospective cohort study.

Pregunta y diseño: Cohorte unicéntrica de 161 adultos con infarto y parada refractaria tratados con ECPR entre 2019 y 2025. La exposición fue el tiempo desde el inicio de compresiones hasta flujo ECMO estable; el desenlace fue CPC 3–5 a 30 días. Por tanto, la pregunta es pronóstica dentro de pacientes tratados, no comparativa entre ECPR y RCP convencional.

Resultados: Hubo 118 desenlaces desfavorables (73,3%), incluidos 104 fallecimientos. Cada minuto adicional se asoció con aOR 1,065 (IC95% 1,036–1,096). La asociación persistió en 132 casos con tiempos exactos. No se detectó no linealidad ni interacción según parada intra o extrahospitalaria; ello no demuestra que ambas relaciones sean idénticas.

Análisis crítico: El ajuste no elimina selección para ECPR ni confusión por calidad de RCP, etiología y demora de reperfusión. Una odds ratio por minuto no es un aumento equivalente del riesgo absoluto. La cifra de 50,9 minutos procede de una clasificación interna con puntos de corte bootstrap dispersos: convertirla en límite excluiría pacientes sin evidencia de ausencia de beneficio. El estudio tampoco permite calcular qué supervivencia habría habido sin ECPR.

¿Cambia mi práctica? Sí refuerza auditar y reducir demoras hasta flujo efectivo, dentro del programa existente. No modifica por sí solo elegibilidad ni retirada de soporte y no adopto 50,9 minutos como límite. La investigación prioritaria debe comparar estrategias, registrar no-flow, calidad de RCP y reperfusión, y evaluar resultados neurológicos a largo plazo.

PMID / DOI: 42807385 · 10.3389/fcvm.2026.1942551

3. Destino directo a centro de parada en Essex

Registro 38: The impact of direct pre-hospital conveyance of patients with out-of-hospital cardiac arrest and a shockable rhythm to a regional cardiac arrest centre.

Pregunta y diseño: Estudio multicéntrico antes-después de 850 paradas: 162 en atención habitual de abril a septiembre de 2022 y 688 tras el protocolo BCIS, de octubre de 2022 a agosto de 2025. El protocolo dirigió los ritmos inicialmente desfibrilables al centro de parada; el STEMI también motivaba traslado independientemente del ritmo.

Resultados: La adherencia al destino en ritmos desfibrilables alcanzó el 84%, frente al 44% previo. La mortalidad global a 30 días pasó del 81% al 67% y CPC 1–2 del 16% al 30%. En ritmos desfibrilables, la mortalidad fue 62% frente a 42%; en no desfibrilables, 94% frente a 93%, sin diferencia significativa.

Análisis crítico: Las diferencias absolutas globales de 14 puntos porcentuales son descriptivas. La comparación de periodos desiguales permite cambios seculares, variaciones en registro, tratamientos y selección; no permite atribuir toda la mejora al transporte ni calcular un NNT causal. Importa conocer duración del traslado, estado al transporte, disponibilidad de hemodinámica y cuidados posparada. La neutralidad de Nagoya (registro 12) obliga a considerar contexto y mezcla de pacientes.

¿Cambia mi práctica? Puede motivar revisión regional del circuito de ritmos desfibrilables y auditoría conjunta de tiempos, adherencia y neurología. No justifica desviar indiscriminadamente todas las paradas ni cambiar una ruta sin valorar recursos y retrasos. Un estudio con control concurrente o implantación escalonada ayudaría a separar el efecto del protocolo de los cambios temporales.

PMID / DOI: 41983283 · 10.1093/ehjacc/zuag057

4. Nivel hospitalario y desenlaces en Nagoya

Registro 12: Association between destination hospital level and outcomes in out-of-hospital cardiac arrest patients under a dispatch-guided transport system: a population-based study in Nagoya, Japan.

Pregunta y diseño: Cohorte poblacional retrospectiva de 12663 paradas entre 2019 y 2025, en un sistema donde la solicitud inicial de hospital no considera el ritmo. Se compararon centros de cuidados críticos (11149 pacientes) con otros hospitales (1514), usando ponderación por probabilidad inversa de tratamiento.

Resultados: El resultado neurológico favorable al mes fue 1,9% frente a 1,7% y la supervivencia 4,1% frente a 4,5%. El ajuste no mostró asociación con neurología favorable. En ritmos no desfibrilables hubo menor supervivencia asociada al centro de mayor nivel (OR 0,66; IC95% 0,46–0,95). En ritmo desfibrilable refractario, la señal de supervivencia de 19,7% frente a 3,3% fue exploratoria e imprecisa.

Análisis crítico: La ausencia de asociación no establece equivalencia ni daño inherente del centro especializado. IPTW equilibra solo variables medidas y necesita suficiente solapamiento entre grupos; el desequilibrio de tamaños y las indicaciones de destino pueden dejar confusión. Las tasas globales bajas indican una población y un sistema distintos de Essex. Nivel hospitalario y aplicación de una ruta dirigida por ritmo son exposiciones diferentes.

¿Cambia mi práctica? No cambio a una política universal de hospital más cercano ni de centro especializado. Sí reviso los criterios locales por ritmo, ROSC, sospecha de causa y tiempo de transporte. La pregunta pendiente es qué pacientes se benefician de qué capacidad concreta del centro, con qué coste temporal y qué resultado neurológico.

PMID / DOI: 42820032 · 10.1016/j.resplu.2026.101482

5. Privación territorial y RCP por testigos

Registro 7: Differences in the rates of bystander cardiopulmonary resuscitation for out-of-hospital cardiac arrest resulting in favourable neurological outcomes according to the regional deprivation index.

Pregunta y diseño: Registro coreano de 184727 adultos con parada de presumible origen cardíaco entre 2013 y 2023. Compara la asociación entre RCP por testigos y CPC 1–2 según privación regional, con ajuste multivariable y análisis de interacción.

Resultados: Recibieron RCP por testigos el 61,0%. Las tasas fueron 57,9% en regiones de alta privación, 59,9% en privación moderada y 62,6% en baja privación. Hubo 10669 resultados neurológicos favorables (5,8%). Las OR ajustadas asociadas a RCP fueron 1,56, 1,31 y 1,34, respectivamente, con interacción p<0,01.

Análisis crítico: Una interacción en odds no determina la diferencia de beneficio absoluto entre territorios. La privación regional no sustituye las circunstancias individuales, y pueden intervenir disponibilidad de DEA, tiempos de emergencias y calidad del soporte posterior. La gran muestra mejora precisión, pero no elimina confusión ni cambios durante once años. El resultado más directamente utilizable es la brecha de acceso observada, no una eficacia causal diferencial cuantificada.

¿Cambia mi práctica? Sí orienta la planificación: medir brechas locales y priorizar formación accesible, asistencia telefónica y cobertura de DEA donde la respuesta es menor. La intensidad y diseño de una intervención deben evaluarse en el territorio, con indicadores de alcance, inicio efectivo de RCP y neurología. No basta con contar personas formadas.

PMID / DOI: 42825111 · 10.1016/j.resplu.2026.101484

6. ECMO proactiva frente a ECPR tras cirugía congénita

Registro 37: Proactive versus resuscitative extracorporeal membrane oxygenation for low cardiac output syndrome after cardiac surgery.

Pregunta y diseño: Análisis retrospectivo del Pediatric Cardiac Critical Care Consortium en pacientes canulados durante las primeras 72 horas tras cirugía con circulación extracorpórea por bajo gasto. Se compararon ECMO proactiva y ECPR mediante análisis multivariable y de propensión. El abstract no informa el tamaño total de la cohorte.

Resultados: ECPR se asoció con mayor mortalidad hospitalaria (OR 1,82; IC95% 1,32–2,51). Con RCP inferior a 30 minutos, la comparación con ECMO proactiva dio OR 0,81 (0,48–1,36). Los pacientes ECPR tenían menor VIS pre-ECMO y tiempos de pinzamiento más cortos; la categoría STAT no predijo significativamente mortalidad.

Análisis crítico: La decisión de canular antes de la parada depende de trayectorias hemodinámicas y juicio clínico que los ajustes pueden no capturar. El subgrupo de RCP corta no demuestra equivalencia: su intervalo incluye beneficio y daño. Un VIS relativamente bajo tampoco excluye deterioro brusco. Sin detalles del tamaño, ajuste y desenlaces neurológicos, la precisión y aplicabilidad deben valorarse con el texto completo antes de cambiar un protocolo.

¿Cambia mi práctica? Refuerza vigilar la trayectoria y preparar rescate también en pacientes considerados de menor riesgo. No define un VIS de canulación ni demuestra que anticipar ECMO a todos mejore resultados. Mantengo decisiones multidisciplinares y audito colapso inesperado, tiempo hasta soporte, complicaciones y supervivencia neurológica; 30 minutos no es una regla universal.

PMID / DOI: 42140553 · 10.1016/j.jtcvs.2026.05.003

7. Biomarcadores y concordancia entre plataformas

Registro 5: Quantification of blood-based neurovascular unit biomarkers: an analytical platform comparison study.

Pregunta y diseño: Análisis post hoc de una cohorte prospectiva de 32 pacientes críticos en retirada de tratamientos de soporte. Compara GFAP, Nf-L, tau y UCH-L1 en plataformas ARGO HT y Simoa; también evalúa GFAP y UCH-L1 en i-STAT. La pregunta principal es analítica, no validar una estrategia de neuropronóstico clínico.

Resultados: ARGO y Simoa mostraron correlaciones r≥0,97. Sin embargo, la concordancia absoluta entre i-STAT y Simoa fue limitada: ICC de GFAP 0,25 (IC −0,14 a 0,59) y de UCH-L1 0,60 (0,20–0,82). Correlaciones altas pueden coexistir con diferencias sistemáticas de escala que desplacen el resultado respecto a un umbral.

Análisis crítico: La selección de pacientes en retirada de soporte y el tamaño pequeño limitan generalización a supervivientes posparada. Se comparan matrices y plataformas, y el abstract no demuestra sensibilidad, especificidad o tasa de falsos positivos de nuevos puntos de corte. Tampoco demuestra que cambiar el ensayo mejore decisiones. Una buena correlación no autoriza utilizar el umbral publicado para otro método.

¿Cambia mi práctica? Sí cambia la comprobación del dato: registrar plataforma, matriz y unidades y confirmar que el umbral interpretado está validado para ese método. No uso estos biomarcadores de forma aislada para limitar tratamiento. La prioridad es validación clínica externa con tiempos de muestreo definidos y evaluación de falsos positivos dentro de un abordaje multimodal.

PMID / DOI: 42825117 · 10.1016/j.resplu.2026.101487

8. Idioma del DEA y seguridad en simulación

Registro 41: "I Don't Speak English Well." Do Language Barriers Affect Automated External Defibrillator Use? A Randomized Simulation Study With Spanish-Speaking Laypeople.

Pregunta y diseño: Ensayo piloto de 50 estudiantes hispanohablantes, sin formación previa en DEA y con inglés mínimo B1. Se aleatorizaron instrucciones en español o inglés con un entrenador multilingüe; las acciones se grabaron y analizaron. Evalúa desempeño simulado, no supervivencia real.

Resultados: Con español, el 96% comprobó que nadie tocara a la víctima antes de descargar, frente al 12% con inglés; el reinicio de RCP fue 83% frente a 12%. No hubo diferencia en tiempo hasta colocar parches. El intervalo de parches a descarga fue menor en inglés (19 frente a 33 segundos; p=0,016), coexistiendo con peores acciones de seguridad.

Análisis crítico: El resultado muestra por qué una medida temporal aislada puede resultar engañosa. La muestra pequeña, joven y con cierto dominio del inglés puede subestimar barreras en población general; un solo dispositivo y la simulación limitan transferencia. Hay múltiples tareas evaluadas y no se informa en el extracto una estimación global ajustada por multiplicidad. No demuestra que un DEA en otro idioma sea inutilizable.

¿Cambia mi práctica? Sí justifica revisar idioma y facilidad de cambio en los DEA disponibles y ensayar la secuencia completa en formación, incluida seguridad y reinicio inmediato de RCP. La elección de dispositivos requiere pruebas locales de usabilidad. No retrasaría el uso del DEA disponible en una emergencia por buscar otro idioma; el estudio no evalúa esa comparación.

PMID / DOI: 41440371 · 10.1097/SIH.0000000000000905

ERC / ILCOR Watch

En el conjunto de esta semana no hay una publicación identificada como guía ERC, corrigendum o CoSTR formal. No debe trasladarse a esta semana la corrección mencionada en el informe anterior como si fuera una novedad del nuevo lote. El marco institucional consultado sigue siendo la colección ERC Guidelines 2025, que distingue recomendaciones, evidencia y declaraciones de buena práctica.

Consulta del portal CoSTR el 27 de octubre de 2026: aparecen, entre otros, temas sobre componentes de las compresiones, acceso IO frente a IV, composición del equipo intrahospitalario y control de temperatura pediátrico. Algunos están etiquetados como borradores. El portal muestra además que no hay revisiones actualmente abiertas a comentario público; esa cabecera y las etiquetas históricas no permiten inferir una consulta activa ni una recomendación final nueva. Se requiere abrir la versión específica antes de incorporarla a protocolos.

Señales para vigilancia: PLS, métricas de compresión y soporte extracorpóreo tras cirugía (19, 37); ALS y sistemas, selección y logística ECPR y destino hospitalario (10, 12, 22, 38); cuidados posresucitación, especificidad de plataforma y validación pronóstica (5, 13); BLS y educación, idioma del DEA, representación corporal y acceso equitativo (7, 40, 41). Son prioridades de seguimiento derivadas de la lectura, no anuncios de cambios de guía.

Fuentes institucionales: ERC Guidelines 2025 · ILCOR CoSTR · Consulta: 27/10/2026.

Research Radar

ECPR y logística real: Los modelos de elegibilidad deben descontar ROSC previo y medir hasta flujo estable, no solo llegada hospitalaria (10, 22). Próximo paso: validación prospectiva de tiempos reales y comparación de estrategias con neurología, complicaciones y costes.

Centros de parada y selección de destino: Essex y Nagoya sugieren que la capacidad hospitalaria aislada no describe toda la intervención (12, 38). Interesan protocolos regionales con controles concurrentes, estratificación por ritmo y ROSC y medición de demoras.

RCP pediátrica orientada a fisiología: La relación entre compresiones, edad, tamaño y perfusión requiere validación independiente (19). La heterogeneidad entre hospitales suecos y la cirugía cardíaca exige evitar extrapolaciones entre poblaciones (28, 37).

Neuropronóstico reproducible: Correlación analítica no garantiza intercambio de umbrales (5). SLANT precisa evaluación de calibración y utilidad local antes de incorporarse a decisiones (13). Priorizar falsos positivos, tiempos de muestreo y evaluación multimodal.

Equidad y factores humanos: Privación territorial, anatomía del maniquí e idioma del DEA afectan distintos eslabones (7, 40, 41). El resultado relevante será la respuesta real y segura, además de conocimiento, comodidad o intención.

Tecnología comunitaria y formación: MySOS, vídeo del operador y primeros intervinientes requieren exposición individual verificable y desenlaces a largo plazo (6, 24, 29). ETE, escalones y escalas educativas necesitan evaluación de retención y transferencia (1, 11, 25).

Decisiones y evidencia traslacional: Ayudas a decidir deben mejorar comprensión y concordancia con valores, no buscar reducir RCP como objetivo (35, 36). Proteómica mitocondrial y lesión renal por ECPR siguen en fase experimental (16, 31, 32), sin tratamiento clínico nuevo demostrado.

Artículos directamente relacionados, por categorías

Sistemas EMS, respuesta comunitaria y cadena de supervivencia

6. Association of a smartphone-based CPR assistance system with prehospital outcomes in out-of-hospital cardiac arrest: a pre-post observational study in Bangkok.

Referencia: Resusc Plus. 2026 Sep 10;32:101485. doi: 10.1016/j.resplu.2026.101485. eCollection 2026 Nov.
Autores: Thepmanee D, Papukdee P, Klaiangthong R, Chalongviriyalert P.
PMID: 42825116
DOI: 10.1016/j.resplu.2026.101485
Tipo de estudio: Antes-después retrospectivo no controlado
Mensaje principal: Tras implantar MySOS aumentó la probabilidad ajustada de ROSC, sin mejora significativa de supervivencia al alta.

Comentario crítico: Sin uso individual confirmado de la aplicación ni control concurrente. RD 6,28% significativa y RR 1,21 no significativo requieren revisar modelos; no atribuir causalmente el cambio a la aplicación.

Abstract / resumen del registro fuente:

BACKGROUND: Out-of-hospital cardiac arrest (OHCA) remains a major public health challenge. Smartphone-based systems may facilitate early bystander response; however, their real-world associations with patient outcomes following implementation within emergency medical service (EMS) systems remain uncertain. OBJECTIVE: This study aimed to evaluate the association between system-level implementation of the MySOS application and prehospital and clinical outcomes among patients with OHCA in Bangkok. METHODS: We conducted a retrospective uncontrolled before-after observational study of patients with OHCA in Bangkok, Thailand, between December 2022 and May 2024. Patients were classified according to the pre- and post-implementation periods of the MySOS application. Inverse probability of treatment weighting (IPTW) and weighted multivariable regression were used to account for measured differences between the study periods. Given the temporal definition of exposure and absence of confirmed patient-level application use, findings were interpreted as associations rather than causal effects. RESULTS: Among 615 patients, 340 (55.3%) were included in the pre-implementation period and 275 (44.7%) in the post-implementation period. The post-implementation period was associated with a higher probability of return of spontaneous circulation (ROSC) (adjusted RD 6.28%, 95% CI 1.69-10.86; p = 0.007), although the corresponding RR was not statistically significant (RR 1.21, 95% CI 0.78-1.89). Differences in death at the scene were also observed between study periods (adjusted RD 14.70%, 95% CI 9.14-20.27; p < 0.001). No statistically significant differences were observed in 24-h survival, survival to hospital admission, or survival to hospital discharge. CONCLUSIONS: The post-implementation period of the MySOS system was associated with a higher probability of ROSC, but not with improved longer-term survival outcomes. These findings should be interpreted cautiously because of the uncontrolled before-after design, residual baseline imbalance, potential temporal confounding, and the absence of patient-level data confirming actual application use. Further prospective studies incorporating direct measures of MySOS activation and utilization are warranted.

7. Differences in the rates of bystander cardiopulmonary resuscitation for out-of-hospital cardiac arrest resulting in favourable neurological outcomes according to the regional deprivation index.

Referencia: Resusc Plus. 2026 Sep 9;32:101484. doi: 10.1016/j.resplu.2026.101484. eCollection 2026 Nov.
Autores: Song KJ, Shin SD, Hong KJ, Park JH, Choi Y, Choi S, Ahn KO.
PMID: 42825111
DOI: 10.1016/j.resplu.2026.101484
Tipo de estudio: Cohorte retrospectiva de registro
Mensaje principal: En 184727 paradas, las regiones más desfavorecidas recibieron menos RCP por testigos y mostraron una asociación más intensa entre esta y buen desenlace neurológico.

Comentario crítico: La privación es territorial, no individual. Interacción en escala de odds no demuestra mayor beneficio absoluto ni causal. Fundamenta priorizar evaluación de desigualdades y acceso a formación.

Abstract / resumen del registro fuente:

BACKGROUND: Variability in the provision of bystander cardiopulmonary resuscitation (BCPR) may influence neurological outcomes in patients with out-of-hospital cardiac arrest (OHCA) according to regional socioeconomic factors. We aimed to investigate the association between BCPR and neurological outcomes of OHCA and whether these associations differ across regions with different levels of deprivation. METHODS: Using data collected from the Korean National OHCA Registry between 2013 and 2023, adults (≥18 years of age) with OHCA of presumed cardiac origin were identified. The main exposure variable was BCPR and the regional deprivation index. The primary outcome was a favourable neurological outcome, defined as a Cerebral Performance Category score of 1 or 2. Multivariate logistic regression was used to evaluate the associations between BCPR and favourable neurological outcomes and to assess the interaction between BCPR and regional deprivation index. RESULTS: Of 184,727 individuals who experienced OHCA, 112,728 (61.0%) received BCPR. There were differences in the rate of BCPR according to regional deprivation group: high, 57.9%; moderate, 59.9%; and low, 62.6%. In total, 10,669 (5.8%) patients experienced favourable neurological outcomes. Multivariable models revealed different associations between BCPR and favourable neurological outcomes according to regional deprivation level: high, adjusted odds ratio (OR) 1.56 (95% confidence interval [CI] 1.23-1.99); moderate, 1.31 (95% CI 1.19-1.44); and low, 1.34 (95% CI 1.23-1.45). The magnitude of the association showed a significant interaction ($p < 0.01$). CONCLUSIONS: Although high-deprivation regions had lower BCPR rates, the association between BCPR and favourable neurological outcomes was stronger in high-deprivation regions than in moderate- and low-deprivation regions. Multifaceted interventions are needed to increase BCPR rates in highly deprived regions.

8. In-hospital cardiac arrest in a resource-limited emergency department in Somalia: Outcomes and priorities for resuscitation system development.

Referencia: Resusc Plus. 2026 Sep 11;32:101483. doi: 10.1016/j.resplu.2026.101483. eCollection 2026 Nov.
Autores: Mohamed MM, Ahmed SA, Sheikh Omar NM, Metin Ö, Çokay Y, Adan HAA.
PMID: 42824733
DOI: 10.1016/j.resplu.2026.101483
Tipo de estudio: Observacional prospectivo unicéntrico
Mensaje principal: En 240 pacientes hubo 5,8% de ROSC y 1,3% de supervivencia más allá de 24 horas; destaca documentación incompleta de activación y RCP.

Comentario crítico: Solo 14 ROSC hacen frágil el ajuste multivariable. RCP no documentada no significa RCP no realizada. Mezcla con alta proporción de trauma limita comparaciones con otros registros.

Abstract / resumen del registro fuente:

BACKGROUND: In-hospital cardiac arrest (IHCA) is associated with high mortality, particularly in low- and middle-income countries where monitoring, emergency response systems, and post-resuscitation resources are limited. Evidence from Somalia remains scarce. This study aimed to describe the clinical characteristics, arrest circumstances, resuscitation-process documentation, short-term outcomes, and exploratory factors associated with return of spontaneous circulation (ROSC) among adult IHCA patients in a resource-limited emergency department in Mogadishu, Somalia. METHODS: This prospective observational study was conducted in the emergency department of Mogadishu Somalia-Turkey Recep Tayyip Erdoğan Training and Research Hospital between January 1, 2025 and April 30, 2026. Adult patients aged ≥18 years who experienced IHCA during the study period were consecutively enrolled. Data were collected prospectively using a standardized structured form. The primary outcome was ROSC, and the secondary outcome was survival beyond 24 h. Logistic regression was used only as an exploratory analysis because of the low number of ROSC events. RESULTS: A total of 240 patients were included. The mean age was 46.3 ± 15.2 years, and 136 patients (56.7%) were male. Most arrests occurred in the emergency department (200, 83.3%). Trauma was the leading admission diagnosis (139, 58.0%), predominantly severe traumatic brain injury (107, 76.9% of trauma cases), followed by sepsis (32, 13.3%). Witness status was documented in 190 patients; among these, 120 arrests (63.2%) were unwitnessed. Emergency response activation was documented in 43 patients (22.6%), and CPR initiation was documented in 35 patients (14.6%). ROSC was achieved in 14 patients (5.8%), and 3 patients (1.3%) survived beyond 24 h. In exploratory analysis, trauma admission, sepsis admission, HIV comorbidity, emergency department arrest, and weekend arrest were associated with reduced odds of ROSC. CONCLUSION: Adult IHCA outcomes were extremely poor in this resource-limited emergency department, with low ROSC and minimal 24-h survival. The findings highlight a high burden of trauma-related arrest, frequent unwitnessed events, incomplete physiological and resuscitation-process documentation, low documented emergency response activation, and low documented CPR initiation. Context-specific strategies focusing on monitoring, early recognition, standardized

emergency response activation, CPR training, structured documentation, and post-arrest review are needed to improve resuscitation systems in Somalia.

12. Association between destination hospital level and outcomes in out-of-hospital cardiac arrest patients under a dispatch-guided transport system: a population-based study in Nagoya, Japan.

Referencia: Resusc Plus. 2026 Sep 8;32:101482. doi: 10.1016/j.resplu.2026.101482. eCollection 2026 Nov.
Autores: Kato A, Matsushima A, Sugiyama M, Kubota A, Imai K, Miura T, Ode Y.
PMID: 42820032
DOI: 10.1016/j.resplu.2026.101482
Tipo de estudio: Cohorte retrospectiva poblacional con IPTW
Mensaje principal: En 12663 paradas de Nagoya, el hospital de mayor nivel no se asoció con mejor resultado neurológico global.

Comentario crítico: Selección de destino y confusión residual; gran desequilibrio de tamaños. La señal en ritmo desfibrilable refractario es exploratoria e imprecisa, no prueba una estrategia preferente.

Abstract / resumen del registro fuente:

BACKGROUND: The relationship between destination hospital level and outcomes in out-of-hospital cardiac arrest (OHCA) patients remains controversial. To examine the association between transport to critical care medical centers and outcomes, we analyzed all city-wide data from Nagoya City, where the initial hospital request is made without consideration of initial cardiac rhythm. METHODS: This retrospective cohort study included 12,663 OHCA patients in Nagoya City between April 2019 and March 2025. Patients were classified by destination hospital: critical care medical center (n = 11,149) or other hospital (n = 1514). Favorable one-month neurological outcomes and one-month survival were evaluated. Inverse probability of treatment weighting (IPTW) evaluated associations between destination hospital level and outcomes. Refractory shockable rhythm was explored. RESULTS: In the critical care medical center and other hospital groups, favorable one-month neurological outcome rates were 1.9% versus 1.7% (P = 0.683), and survival rates were 4.1% versus 4.5% (P = 0.494). IPTW showed no association between destination hospital level and favorable neurological outcomes overall or by rhythm. Transport to critical care medical centers was associated with lower one-month survival in patients with non-shockable rhythm (odds ratio, 0.66; 95% confidence interval, 0.46-0.95). Exploratory analysis showed higher one-month survival among patients with refractory shockable rhythm transported to critical care medical centers (19.7% vs. 3.3%), although the estimate was imprecise. CONCLUSION: Under a dispatch-guided transport system, transport to critical care medical centers was not associated with favorable neurological outcomes in either rhythm group. These findings do not establish a preferred transport strategy, although selected patients may have better outcomes at these centers.

21. The cost-effectiveness and health equity of prehospital treatment strategies for out-of-hospital cardiac arrest patients: a systematic review.

Referencia: Prehosp Emerg Care. 2026 Sep 29:1-66. doi: 10.1080/10903127.2026.2741269. Online ahead of print.
Autores: Jang K, Morton RL, Dennis M, Nikolovski J, Zhan X, Ke Y, Burns B, Tran AD.
PMID: 42809516
DOI: 10.1080/10903127.2026.2741269
Tipo de estudio: Revisión sistemática de evaluaciones económicas
Mensaje principal: Diez evaluaciones sugieren eficiencia de varias estrategias prehospitalarias y escasa incorporación de equidad.

Comentario crítico: Comparadores, monedas, modelos y sistemas heterogéneos; no comparar ICER nominales sin ajustar contexto. Resultados sensibles a supervivencia y neurología; no justifican por sí solos implantación local.

Abstract / resumen del registro fuente:

OBJECTIVES: Out-of-hospital cardiac arrest (OHCA) remains a major public health challenge, associated with substantial mortality and significant costs for health care system. This systematic review aimed to (i) synthesise economic evaluations of prehospital treatment strategies for OHCA from ambulance attendance through to hospital discharge; (ii) assess the methodological quality and reporting of the included studies; and (iii) evaluate the reporting of health equity-relevant data. METHODS: We searched Medline, Embase, Scopus, EconLit, and CINAHL databases for records from database inception to 12 June 2026. The QHES and CHEERS checklists were used to assess the quality and reporting standards of included studies, and the

review was reported according to the PRISMA checklist. The completeness of reporting health equity outcomes was reviewed using the PROGRESS (Place of residence, Race, Occupation, Gender, Religion, Education, Socioeconomic status and Social capital) - Plus framework. RESULTS: Ten economic evaluations met eligibility criteria. Most studies were cost-utility analyses (n = 8, 80%) and used Markov models (n = 6, 60%). Most evaluations were 'very good quality' (≥ 80%) (n = 6, 60%). Early defibrillation and advanced life support (ALS) delivered by trained emergency medical technicians were cost-effective compared with no intervention, emergency physician-led ALS, standard emergency medical services or paramedic care (ICER range from £11,407 to USD $56,700 per QALY gained). Prehospital extracorporeal cardiopulmonary resuscitation (ECPR) was more cost-effective than in-hospital ECPR strategies (ICER range from AUD $27,323 to $44,000 per QALY gained). Termination-of-resuscitation (TOR) strategies were cost-effective compared with no TOR or other TOR strategies, including basic life support and ALS TOR, with estimates of $110,554 saved per QALY lost and USD $23,851 per QALY gained.Survival rate and neurological outcomes influenced cost-effectiveness results. Equity reporting was limited: almost all included studies addressed less than 40% of the PROGRESS-Plus equity criteria. CONCLUSIONS: Most strategies that increased prehospital treatment intensity, avoided futile transport, or enabled earlier advanced care were cost-effective; however, the certainty of evidence, particularly for sub-groups, was limited by heterogeneous comparators and sparse equity reporting.

24. Association between video-guided dispatcher-assisted cardiopulmonary resuscitation and outcomes after out-of-hospital cardiac arrest: a population-based cohort study.

Referencia: World J Emerg Med. 2026 Sep 1;17(5):478-481. doi: 10.5847/wjem.j.1920-8642.2026.091.
Autores: Li H, Fu J, Li L, Wang X, Zhu K, Cai W.
PMID: 42807041
DOI: 10.5847/wjem.j.1920-8642.2026.091
Tipo de estudio: Cohorte poblacional según el título
Mensaje principal: Aborda asociación de RCP guiada por vídeo desde el centro coordinador con resultados; el archivo no contiene abstract.

Comentario crítico: No constan muestra, comparador ni magnitud de efecto. El título no permite concluir beneficio; registro bibliográfico verificado, texto completo pendiente.

Abstract / resumen del registro fuente:

El registro de PubMed incluido en el archivo fuente no aporta abstract. No se reconstruye un resumen a partir del título.

29. Out-of-hospital cardiac arrest management in the Swiss canton of Valais: a retrospective study on first responders' response and automated external defibrillator efficacy.

Referencia: Swiss Med Wkly. 2026 Sep 25;156:4761. doi: 10.57187/4761.
Autores: Kanthasamy A, Pascale P, Girod G.
PMID: 42801457
DOI: 10.57187/4761
Tipo de estudio: Cohorte retrospectiva regional
Mensaje principal: En 107 pacientes, los primeros intervinientes llegaron antes que emergencias en el 68%; no hubo diferencias significativas de supervivencia.

Comentario crítico: Tamaño pequeño y grupos no aleatorios; ausencia de significación no demuestra equivalencia. La evaluación de un modelo de DEA no se generaliza a todos los dispositivos.

Abstract / resumen del registro fuente:

STUDY AIMS: Cardiac arrest is a condition with a high mortality rate, with most cases occurring outside hospital. First responders (defined as public responders in our study) play an increasingly important role in management through the early initiation of cardiopulmonary resuscitation and defibrillation. Several studies have shown that the involvement of public responders can result in faster initiation of resuscitation and increased survival. This study evaluated the management of out-of-hospital cardiac arrest by public responders and the effectiveness of the FRED-PA1 automated external defibrillator (AED) available in the canton of Valais, Switzerland. METHODS: This was a retrospective study including consecutive cases of out-of-hospital cardiac arrest occurring between January 2021 and December 2023 in the canton of Valais. Response times of public responders and emergency medical services (EMS) were evaluated, along with initial rhythms, survival, and the performance and safety of the available AEDs.

RESULTS: A total of 107 patients were included in the study. In 68% of cases, a public responder arrived at the scene first, with a significantly shorter interval between emergency call and on-site arrival compared with EMSs (p = 0.019). Ventricular fibrillation was more frequent in the EMS group than the public responders group (35 vs 23%) (non-significant [NS]). Survival on arrival at hospital was 19% in the public responder group and 24% in the EMS group (NS). Survival to hospital discharge was 9.6% in the public responder group and 15% in the EMS group (NS). Concerning the AEDs, the rhythm recognition algorithm was deemed to be effective and consistent with current recommendations. CONCLUSION: This retrospective study demonstrates the key role played by public responders, who are frequently the first to arrive at the scene of out-of-hospital cardiac arrests. The FRED-PA1 AED algorithm meets the standards in the literature. However, ongoing prospective studies will highlight and optimise the role of public responders in out-of-hospital cardiac arrests.

34. [Impact of prehospital management on the prognosis of out-of-hospital cardiac arrest].

Referencia: Ann Cardiol Angeiol (Paris). 2026 Oct;75(4-5):102055. doi: 10.1016/j.ancard.2026.102055. Epub 2026 Aug 4.
Autores: Outahayou A, Fellat I, Bensaleh S, Karroumi NE, Amara W, Monchi M, Moini C.
PMID: 42552213
DOI: 10.1016/j.ancard.2026.102055
Tipo de estudio: Cohorte retrospectiva unicéntrica
Mensaje principal: En 100 paradas, supervivencia hospitalaria del 20%; intervalos no-flow y low-flow más cortos se asociaron con supervivencia.

Comentario crítico: Solo 20 supervivientes y escasa potencia para ajustar. La falta de asociación ajustada de intervención del testigo no invalida RCP precoz; tiempos retrospectivos susceptibles de error.

Abstract / resumen del registro fuente:

BACKGROUND: Out-of-hospital cardiac arrest is a major public health challenge in France, with approximately 46,000 cases per year and survival rates ranging from 4 to 10%. Early prehospital management is a key determinant of vital and neurological prognosis. METHODS: Single-center, retrospective, observational study including 100 patients managed by the mobile intensive care unit of Melun General Hospital between January 2021 and September 2025. Neurological outcome was assessed using the Cerebral Performance Category score. Bivariate analysis and multivariate logistic regression were performed to identify factors associated with in-hospital survival. Numerical variables are reported as median [quartile1-quartile 3]. RESULTS: Median age was 66 years [54.5-73], with 59% male patients. Cardiac arrest occurred at home in 78% of cases. Bystander cardiopulmonary resuscitation was initiated in 80% of cases; public automated external defibrillator use remained marginal (9%). Median no-flow duration was 3minutes [1-8.5] and median low-flow duration was 20minutes [13-30]. Asystole was the initial rhythm in 76% of cases. In-hospital survival was 20%. Multivariate analysis showed that shorter no-flow and low-flow intervals were independently associated with survival. Bystander intervention was not significant after adjustment. CONCLUSION: Prehospital time intervals, especially no-flow duration, are the primary determinants of survival after out-of-hospital cardiac arrest. Strengthening public training in basic life support and improving automated external defibrillator accessibility are priority targets to improve outcomes.

38. The impact of direct pre-hospital conveyance of patients with out-of-hospital cardiac arrest and a shockable rhythm to a regional cardiac arrest centre.

Referencia: Eur Heart J Acute Cardiovasc Care. 2026 Sep 30;15(9):678-689. doi: 10.1093/ehjacc/zuag057.
Autores: Sajjad U, Simpson R, Movio G, Ibrahim A, Butt H, Khan S, Dawood K, Sabih H, Sandutu T, Osondu M, Omar A, Prisenznakova D, Johnson TW, Curzen N, Clesham G, Maccaroni M, Mion M, Rees P, Feldt JVV, Alsinbili A, Jagathesan R, Cook C, Demir OM, Mohamed MO, Karamasis G, Hildick-Smith D, Davies JR, Pareek N, Keeble TR.
PMID: 41983283
DOI: 10.1093/ehjacc/zuag057
Tipo de estudio: Observacional multicéntrico antes-después
Mensaje principal: En 850 pacientes, el protocolo de destino se asoció con reducción de mortalidad a 30 días del 81% al 67% y aumento de CPC 1–2 del 16% al 30%.

Comentario crítico: Fases de duración muy desigual, cambios temporales y selección por ritmo. No estimar NNT causal de diferencias crudas ni extrapolar a ritmos no desfibrilables, donde no hubo señal.

Abstract / resumen del registro fuente:

AIMS: Guidelines recommend that survivors of out-of-hospital cardiac arrest (OHCA) be transported to a cardiac arrest centre (CAC), though supporting evidence remains limited. This study evaluated whether implementation of the BCIS conveyance algorithm, based on initial rhythm, improves survival outcomes. METHODS AND RESULTS: This observational, multicentre study compared consecutive OHCA cases before and after algorithm implementation across Essex. In the Standard Care phase (April-September 2022), CAC transfer was based on clinical discretion, typically for STEMI or suspected cardiac cause. In the BCIS Protocol phase (October 2022-August 2025), all patients with an initial shockable rhythm were conveyed directly to CAC, as were those with STEMI on pre-arrest or post-ROSC ECG irrespective of initial rhythm (standard care); others were taken to district general hospitals (DGHs) or discussed with CAC. The primary outcome was 30-day all-cause mortality; the secondary outcome was survival with favourable neurological status (CPC 1-2). Among 850 patients (mean age, 66.5 ± 13.7 years, 69% male), 162 received standard care and 688 were managed under the BCIS protocol. Initial shockable rhythm conveyance adherence to CAC was seen in 84% cases, resulting in 40% absolute increase in the proportion of patients with an initial shockable rhythm being transported directly to CAC (44% in the standard care group vs. 84% in the BCIS group). Algorithm implementation was associated with significantly reduced 30-day mortality (81% vs. 67%; P < 0.001) and increased survival with favourable neurological outcome (16% vs. 30%; P < 0.001). Improvements were most evident in patients with initial shockable rhythms (62% vs. 42%; P = 0.001). No difference was observed for non-shockable rhythms (94% vs. 93%; P = 0.81). CONCLUSION: Implementation of the BCIS conveyance algorithm improves 30-day survival and neurological outcomes in OHCA patients with initial shockable rhythms when transported directly to a CAC.

Epidemiología y prevención de la parada cardíaca

2. Associations between the standard deviation of apparent temperature and sudden cardiac arrest during the Taipei Marathon, 2013-2024.

Referencia: Front Physiol. 2026 Sep 18;17:1843910. doi: 10.3389/fphys.2026.1843910. eCollection 2026.

Autores: Lin YH, Chen C, Hsieh SL, Chen PY, Hsia TI, How CK, Lin YK, Chiu YH, Chang KS, Huang MK, Chien DK, Chang WH.

PMID: 42827672

DOI: 10.3389/fphys.2026.1843910

Tipo de estudio: Observacional retrospectivo ecológico

Mensaje principal: Se registraron 13 paradas en 316446 participantes; todos recuperaron circulación en el lugar. La variabilidad térmica se asoció con incidencia.

Comentario crítico: Solo 13 eventos y un IC muy amplio para el IRR 6,63 (1,85–52,11); exposición meteorológica agregada, confusión y multiplicidad limitan la causalidad. ROSC no equivale a supervivencia neurológica.

Abstract / resumen del registro fuente:

BACKGROUND: Climate change has led to a discernible increase in the intensity of extreme weather events, contributing to growing public health concerns regarding temperature-related mortality and morbidity. Recently, there has been an increase in the number of sudden cardiac arrests (SCAs) occurring during annual Taipei Marathon events compared with previous years. This study aimed to explore the correlation between weather conditions and SCA risk in runners. METHODS: This retrospective observational study used data from the Taipei Marathon event held between 2013 and 2024 in Taiwan. We examined the relationship between the SCAs and weather conditions for each year using a Poisson regression model. RESULTS: Among the 95,866 full- and 220,580 half-marathoners, all SCAs occurred in Taiwanese runners. There were three SCAs in male marathoners (median age, 50 years). In half-marathon runners, 10 SCAs occurred (median age, 30 years), including nine males and one female. Each 1 °C increase in the standard deviation of apparent temperature (AT) over the 7-day time window (lag 0-6) was associated with an SCA incidence rate that was 6.63 times as high on race day (IRR = 6.63, 95% profile likelihood CI 1.85-52.11; LRT p < 0.001). The incidence rate was significantly higher during half-marathons than during full marathons (4.53 versus 3.13 per 100,000 participants) and among men than among women (5.17 versus 1.18 per 100,000). The highest proportion of SCA (61.5%) occurred in the final quarter of the race. Bystander-administered cardiopulmonary resuscitation (CPR) was provided in all SCA events (100%). Automated external defibrillator shocks were delivered to 11 of 13 runners (84.6%). All 13 runners (100%) achieved return of spontaneous circulation in the field. CONCLUSION: Greater short-term AT variability was associated with a higher incidence of SCA during Taipei Marathon events, suggesting that temperature variability over several days preceding and including race day may be associated with SCA occurrence. Runners should remain highly vigilant and take proactive measures under cold/high-risk

weather conditions. The on-site presence of trained first responders to initiate CPR is mandatory at these events. A well-planned model of in-event emergency medical services is of vital importance in scenarios such as marathon events.

Reanimación avanzada, ECPR/ECMO y soporte circulatorio

10. Modelling eCPR eligibility after out-of-hospital cardiac arrest: a 10-year retrospective temporospatial analysis from a mixed urban-rural region in Germany.

Referencia: Scand J Trauma Resusc Emerg Med. 2026 Sep 9;34(1):159. doi: 10.1186/s13049-026-01681-7.
Autores: Grimm C, Illian H, Kunze-Szikszay N, Haus H, Balzer C, Roessler M.
PMID: 42823760
DOI: 10.1186/s13049-026-01681-7

Tipo de estudio: Cohorte retrospectiva con modelización temporoespacial
Mensaje principal: La elegibilidad ECPR varía mucho con criterios y logística; el escenario hospitalario modelado tuvo mediana de 75 minutos hasta flujo.

Comentario crítico: Escenarios hipotéticos y tiempos asumidos no demuestran beneficio de ECPR prehospitalaria. El ROSC antes de canulación reduce el volumen real tratable. Separar llegada al hospital de establecimiento de flujo.

Abstract / resumen del registro fuente:

BACKGROUND: Survival with good neurological function after out-of-hospital cardiac arrest (OHCA) remains low. Extracorporeal cardiopulmonary resuscitation (eCPR) may benefit selected patients, but it is unclear how many patients in a mixed urban-rural European region would be eligible, whether regional case volumes justify dedicated eCPR programmes, and whether an in-hospital strategy after intra-arrest transport can meet a 60-minute low-flow target. METHODS: We conducted a retrospective cohort study of OHCA cases in the city and county of Göttingen, Germany (January 2015-February 2025). eCPR eligibility was assessed using a local protocol and a stricter modified ELSO definition. Eligibility was first determined at emergency medical services (EMS) arrival and then re-evaluated for three hypothetical intra-arrest transport strategies in which transport was initiated after 10, 15, or 20 minutes of on-scene conventional cardiopulmonary resuscitation (cCPR). Scene-to-hospital travel times were modelled and patients were classified according to whether they would be eligible for eCPR upon hospital arrival. A complementary analysis estimated time from collapse to hypothetical eCPR initiation under an on-scene scenario, split into simultaneous dispatch of a dedicated eCPR team (S1a) and delayed dispatch after 10 minutes of on-scene evaluation by the primary EMS team (S1b), and an in-hospital scenario following intra-arrest transport (S2), incorporating documented timing of sustained return of spontaneous circulation (ROSC). RESULTS: Of 2,218 OHCA cases, 1,696 registry-documented patients were analysed (median age 71.5 years; 67.5% male; shockable rhythm 20.5%). At EMS arrival, 348 patients (20.5%) met local and 149 (8.8%) modified ELSO criteria. With transport initiated after 10/15/20 minutes of on-scene cCPR, 11.1%/9.8%/8.8% (local) and 3.8%/3.1%/2.8% (modified ELSO) would have been eligible at hospital arrival. Extrapolated regional case volume was approximately 46 (local) and 20 (modified ELSO) eligible patients per year at EMS arrival. In patients who met local eCPR criteria the number of patients with sustained ROSC exceeded those without at 13.4 minutes after EMS arrival. Median estimated time from collapse to eCPR was 37 minutes under S1a (94.8% within 60 minutes) and 54 minutes under S1b (71.6% within 60 minutes) versus 75 minutes under S2 (<1% within 60 minutes). After excluding patients with ROSC before hypothetical eCPR initiation, 47.4% (S1a) and 31.6% (S1b) in the local cohort and 36.9% (S1a) and 24.8% (S1b) in the modified ELSO cohort would both still have required and could have received on-scene eCPR within 60 minutes. CONCLUSIONS: A substantial number of OHCA patients in our region met eCPR eligibility criteria, but hospital arrival did not equate to eCPR initiation. Given realistic procedural time intervals, in-hospital eCPR following intra-arrest transport rarely met the 60-minute target, whereas on-scene eCPR might have remained feasible for most eligible patients.

22. Low-flow time and neurological outcomes in AMI patients undergoing ECPR: a retrospective cohort study.

Referencia: Front Cardiovasc Med. 2026 Sep 14;13:1942551. doi: 10.3389/fcvm.2026.1942551. eCollection 2026.
Autores: Liang B, Yu Q, Xu L, Cheng Y.
PMID: 42807385
DOI: 10.3389/fcvm.2026.1942551
Tipo de estudio: Cohorte retrospectiva unicéntrica
Mensaje principal: En 161 pacientes con infarto tratados con ECPR, cada minuto de low-flow se asoció con mayor odds de CPC 3–5 a 30 días (aOR 1,065).

Comentario crítico: Asociación pronóstica condicionada a recibir ECPR, sin grupo de RCP convencional. No identifica el efecto de tratar ni un umbral de futilidad; 50,9 minutos es una clasificación interna inestable.

Abstract / resumen del registro fuente:

BACKGROUND: Acute myocardial infarction (AMI) complicated by refractory cardiac arrest (CA) carries extremely high mortality and neurological disability rates. Extracorporeal cardiopulmonary resuscitation (ECPR) is a rescue intervention for this population, but outcomes after its use vary widely across individuals. Low-flow time (the interval from initiation of chest compressions to establishment of stable ECMO flow) is an important prognostic factor among ECPR-treated patients. Its association with outcomes in Chinese patients with AMI-related CA remains incompletely characterized. METHODS: We conducted a retrospective cohort study of 161 eligible adult patients with AMI-related refractory CA who received ECPR at our tertiary center between January 2019 and December 2025. The primary endpoint was 30-day unfavorable neurological outcome [Cerebral Performance Category (CPC) score 3-5]. Multivariable logistic regression evaluated low-flow time continuously as the primary exposure. RCS regression assessed possible nonlinearity, whereas ROC analysis provided a secondary, exploratory cohort-specific classification. We performed an exact-timing sensitivity analysis and a full-cohort interaction analysis to assess heterogeneity by arrest setting. RESULTS: Among the 161 enrolled patients, 118 (73.3%) had 30-day unfavorable neurological outcomes, including 104 deaths (64.6%). After multivariable adjustment, each additional minute of low-flow time was associated with higher odds of unfavorable outcome (aOR 1.065, 95% CI 1.036-1.096; P < 0.001). The association remained in 132 patients with exact timing (aOR 1.082, 95% CI 1.042-1.124; P < 0.001). In a parsimoniously adjusted interaction model, the estimated aOR per minute was 1.061 (95% CI 1.027-1.096) for IHCA and 1.072 (95% CI 1.023-1.124) for OHCA; the interaction was not statistically detectable (P = 0.708). RCS did not detect nonlinearity (P = 0.660). The exploratory 50.9-min classification was internally derived and its bootstrap cutpoints were widely distributed. CONCLUSIONS: Among selected AMI patients who received ECPR, increasing low-flow time was progressively associated with unfavorable 30-day neurological outcome, with no detected nonlinear inflection or evidence of effect modification by arrest setting. These findings are prognostic among ECPR-treated patients and do not define when ECPR should or should not be initiated. The internally derived 50.9-min classification is exploratory and is not an eligibility threshold.

23. Real-time transesophageal echocardiography for guiding prolonged cardiopulmonary resuscitation.

Referencia: World J Emerg Med. 2026 Sep 1;17(5):484-487. doi: 10.5847/wjem.j.1920-8642.2026.080.
Autores: Li X, Yang Y, Guan L, Tian Z.
PMID: 42807371
DOI: 10.5847/wjem.j.1920-8642.2026.080
Tipo de estudio: Artículo clínico de diseño no verificable en el extracto
Mensaje principal: El título aborda ETE durante RCP prolongada; no hay abstract en el archivo ni en el registro bibliográfico recuperado.

Comentario crítico: Sin resultados evaluables no se puede atribuir eficacia, supervivencia ni diseño de caso o serie. Pendiente lectura del texto completo; excluido del Top 8.

Abstract / resumen del registro fuente:

El registro de PubMed incluido en el archivo fuente no aporta abstract. No se reconstruye un resumen a partir del título.

26. Extracorporeal cardiopulmonary resuscitation for cardiogenic shock in a Jehovah's witness.

Referencia: J Artif Organs. 2026 Sep 28;29(4):65. doi: 10.1007/s10047-026-01591-6.
Autores: Afflu DK, F Chai L, Kehara H, Baskin SM, Toyoda Y, Yanagida R.
PMID: 42803986
DOI: 10.1007/s10047-026-01591-6
Tipo de estudio: Caso clínico
Mensaje principal: Describe ECPR con ECMO VA sin transfusión en una persona testigo de Jehová.

Comentario crítico: Demuestra factibilidad puntual, no seguridad general ni equivalencia. Selección y publicación de éxito; preferencias sobre productos y circuitos requieren valoración individual.

Abstract / resumen del registro fuente:

Veno-arterial (V-A) and veno-venous (V-V) extracorporeal membrane oxygenation (ECMO) are frequently employed in the management of cardiopulmonary failure in critically ill patients. Utilization, however, is controversial in the Jehovah's Witness (JW) population as temporary mechanical circulatory support (tMCS) typically is associated with blood loss requiring transfusions. Despite this fact, use of ECMO is still feasible in this population while avoiding blood transfusions and there have been few reported cases in the literature. However, its use as part of cardiopulmonary resuscitation is limited. Multiple strategies have been employed to limit blood loss and maximize endogenous hematopoiesis to assist in maintaining normal physiology while utilizing tMCS. Though these tactics are most useful when applied in the preintervention setting, they are applicable in the emergency setting including extracorporeal cardiopulmonary resuscitation (ECPR). This can be achieved with conscientious cannulation technique and circuit management. Presented here is a case report of the successful use of V-A ECMO in the resuscitation for a JW, avoiding blood product transfusions. The protocol utilized to eliminate the need for blood transfusions is also discussed. This approach adds to the growing body of evidence emphasizing that the use of tMCS as part of bloodless medicine practice is feasible, even in the emergency setting.

Cuidados posresucitación y neuropronóstico

5. Quantification of blood-based neurovascular unit biomarkers: an analytical platform comparison study.

Referencia: Resusc Plus. 2026 Sep 11;32:101487. doi: 10.1016/j.resplu.2026.101487. eCollection 2026 Nov.
Autores: Allen CP, Goulet DJ, Stukas S, Agbay AM, Morelli TF, Romero T, Hirsch-Reinshagen V, Wellington CL, Sekhon MS, Bird JD.
PMID: 42825117
DOI: 10.1016/j.resplu.2026.101487
Tipo de estudio: Comparación analítica post hoc de cohorte prospectiva
Mensaje principal: En 32 pacientes, alta correlación entre plataformas no garantizó concordancia absoluta; GFAP mostró ICC 0,25 entre i-STAT y Simoa.

Comentario crítico: Muestra seleccionada en retirada de soporte vital, sin validación de umbrales pronósticos. Diferencias de matriz y plataforma impiden transferir puntos de corte; no valida decisiones individuales de limitación terapéutica.

Abstract / resumen del registro fuente:

BACKGROUND: Hypoxic ischemic brain injury (HIBI) remains a significant cause of morbidity and mortality in patients following cardiac arrest. Many international guidelines for HIBI prognostication advocate for a multimodal approach with inclusion of blood-based biomarkers. However, advancements in analytical technology have increased uncertainty in selecting the optimal quantification tool and impeded application of these results across platforms in accordance with amalgamated prognostication thresholds. METHODS: We conducted a post hoc analysis of a prospective observational cohort study in 32 critically ill patients undergoing withdrawal of life-sustaining therapies. Serum and plasma glial fibrillary acidic protein (GFAP), neurofilament-light (Nf-L), tau, and ubiquitin carboxyl hydrolase L-1 (UCH-L1) were quantified on the Simoa HD-X and ARGO HT analytical platforms respectively. Plasma GFAP and UCH-L1 samples were additionally quantified using the point-of-care i-STAT Alinity. RESULTS: GFAP, Nf-L, Tau, and UCH-L1 were highly correlated between the ARGO HT and Simoa HD-X analytical platforms (all Pearson's $r \geq 0.97$, $P \leq 4.5e-13$). In contrast, absolute agreement between the i-STAT Alinity and Simoa HD-X platforms was poor-to-moderate for GFAP (Intraclass correlation coefficient; ICC: 0.25 [-0.14, 0.59], $P = 0.11$) and poor-to-good for UCH-L1 (ICC: 0.60 [0.20, 0.82], $P = 0.0026$). The ARGO HT demonstrated strong inter-analyzer correlation with the i-STAT Alinity for GFAP ($r = 0.98$, $P = 6.2e-18$) and moderate correlation for UCH-L1 ($r = 0.66$, $P = 0.00022$). CONCLUSION: Collectively, this cross-platform validation highlights the

importance of device-specific analytical methods and prognostication thresholds for each analytical platform considered for use in clinical practice.

13. External Validation of a Post-Cardiac Arrest Risk Score (SLANT) for In-Hospital Mortality in Patients Receiving Targeted Temperature Management.

Referencia: Heart Lung Circ. 2026 Oct 1:S1443-9506(26)00426-9. doi: 10.1016/j.hlc.2026.05.017. Online ahead of print.
Autores: Sung CW, Fan CY, Lien CJ, Huang CT, Huang CH, Chen CH, Huang SS, Ho YJ, Chen YC, Pei-Chuan Huang E.
PMID: 42823224
DOI: 10.1016/j.hlc.2026.05.017
Tipo de estudio: Validación externa retrospectiva multicéntrica
Mensaje principal: SLANT alcanzó AUC 0,746 en 451 pacientes con TTM y mortalidad del 66,5%.

Comentario crítico: Discriminación moderada, sensibilidad 65,7% y especificidad 78,2% no permiten decisiones irreversibles. Incluye leucocitos tras TTM, por lo que no es una escala inmediata; requiere validación de utilidad y calibración local.

Abstract / resumen del registro fuente:

BACKGROUND: Despite improvements in cardiopulmonary resuscitation and post-cardiac arrest care, in-hospital mortality among survivors of out-of-hospital cardiac arrest (OHCA) remains high, particularly in Asia. The SLANT score was developed to predict outcomes in patients with comatose OHCA receiving targeted temperature management (TTM), but its performance outside the original derivation cohort remains uncertain. We aimed to externally validate the SLANT score for predicting in-hospital mortality in an East Asian population. METHOD: We conducted a multicentre retrospective cohort study across three tertiary hospitals in Taiwan between 2016 and 2023. Adult patients with OHCA who achieved sustained return of spontaneous circulation, remained comatose, and received TTM were included. The SLANT score-comprising initial non-shockable rhythm, post-TTM leukocyte abnormality, total adrenaline dose ≥5 mg, absence of bystander cardiopulmonary resuscitation, and resuscitation duration ≥20 minutes-was calculated using original definitions. The outcome was in-hospital mortality. Discrimination was assessed using the area under the receiver operating characteristic curve (AUC), and calibration was evaluated with calibration plots. RESULTS: Among 451 eligible patients, 300 (66.5%) died during hospitalisation. The SLANT score demonstrated good discrimination for in-hospital mortality (AUC 0.746; 95% confidence interval 0.696-0.796), with acceptable calibration, particularly in moderate- to high-risk ranges. A score threshold ≥14 provided the optimal balance between sensitivity (65.7%) and specificity (78.2%), with a positive predictive value of 85.7%. CONCLUSIONS: In this East Asian cohort, the SLANT score showed reasonable discrimination and calibration for predicting in-hospital mortality. These findings support its potential role in post-cardiac arrest risk stratification, while underscoring the need for contextual clinical judgment.

14. Refractory Shock in the Post-Cardiac Arrest Patient.

Referencia: Emerg Med Clin North Am. 2026 Nov;44(4):729-743. doi: 10.1016/j.emc.2026.04.003. Epub 2026 May 19.
Autores: Walker AC, Johnson NJ.
PMID: 42823014
DOI: 10.1016/j.emc.2026.04.003
Tipo de estudio: Revisión clínica narrativa
Mensaje principal: El shock posparada puede ser mixto y cambiar de predominio en horas; propone orientar el soporte por fisiología.

Comentario crítico: No aporta comparación primaria ni estimación de efecto. La selección de soporte farmacológico y mecánico exige valoración individual y contraste con evidencia específica.

Abstract / resumen del registro fuente:

Mixed shock is common after cardiac arrest (CA), with dominant shock physiology sometimes changing over the course of hours. This article focuses on identifying dominant shock physiology in patients with refractory shock after CA and targeted strategies for resuscitation. The authors discuss approach to cardiogenic shock, including pharmacologic and mechanical support, as well as advanced pharmacologic therapies relevant to distributive shock.

Reanimación pediátrica

19. Association of Chest Compression Metrics During Pediatric CPR With Intra-Arrest Blood Pressure and Survival Outcomes in the United States: Insights From ICU-RESUS.

Referencia: Circ Popul Health Outcomes. 2026 Sep 30:e013037. doi: 10.1161/CIRCOUTCOMES.125.013037. Online ahead of print.

Autores: Wolfe HA, Morgan RW, Reeder RW, Abdelsamad N, Ahmed T, Cooper KK, Franzon D, Graham K, Harding ML, Maa T, Meert KL, Nadkarni VM, Berg RA, Sutton RM; ICU-RESUS Investigators.

PMID: 42813260

DOI: 10.1161/CIRCOUTCOMES.125.013037

Tipo de estudio: Análisis observacional prospectivamente diseñado dentro de ICU-RESUS

Mensaje principal: En 543 niños, las metas recomendadas no se asociaron con alta hospitalaria; los nuevos rangos derivados con splines son exploratorios.

Comentario crítico: Confusión por edad, tamaño y fisiología; selección de datos evaluables y optimización de umbrales en la misma muestra. El abstract presenta unidad cm3/min y un IC incompleto de frecuencia. No adoptar 130–160/min ni 23–27 mm como objetivos clínicos.

Abstract / resumen del registro fuente:

BACKGROUND: High-quality cardiopulmonary resuscitation is associated with improved outcomes; however, specific targets for younger age groups are largely based on extrapolations from adult studies and small pediatric cohort studies. METHODS: Prospectively designed embedded study within the ICU RESUScitation Project (ICU-RESUS). Children (≤18 years) who received cardiopulmonary resuscitation in 10 intensive care units in the United States were enrolled between 2016 and 2021. We excluded patients with documented limitations of care, who were brain dead, or who had OHCA. The exposures were American Heart Association-recommended chest compression (CC) targets for rate (100-120 cm3/min), depth (≥40 mm for age <1 year and ≥50 mm for age ≥1 year), and CC fraction (CCF; >80%). Associations between achieving CC targets over the first 10 minutes of cardiopulmonary resuscitation and outcomes were quantified using multivariable Poisson regression models (primary outcome: survival to hospital discharge [SHD]). In exploratory analyses, cubic splines further explored the relationship between CC metrics and outcomes to identify exploratory targets. RESULTS: Among 543 patients with evaluable data, the recommended rate target was met in 46.3%, depth in 25.7%, and CCF in 88.5%. Mean age was 3.6 (SD, 5.3) years, and 54.3% were male. None of these recommended CC targets were associated with SHD (rate: adjusted relative risk [aRR], 0.91 [95% CI, 0.78]; depth: aRR, 0.81 [95% CI, 0.51-1.29]; and CCF: aRR, 1.19 [95% CI, 0.92-1.54], respectively). Using cubic spline analyses, the following exploratory targets were identified and were associated with SHD: rate 130 to 160 cm3/min (aRR, 1.23 [95% CI, 1.04-1.46]), depths of 23 to 27 mm for patients <1 year (aRR, 1.76 [1.14-2.72]), and CCF >90% (aRR, 1.24 [1.03-1.49]). CONCLUSIONS: Currently recommended CC rate, depth, and fraction targets were not associated with SHD in this cohort. In contrast, we identified new potential pediatric cardiopulmonary resuscitation targets that were associated with SHD: rate 130 to 160 CC/min, depths of 23 to 27 mm for patients <1 year, and CCF >90%. These criteria need validation in future prospective trials. REGISTRATION: URL: https://www.clinicaltrials.gov; Unique identifier: NCT02837497.

28. A National Pediatric Cohort Study on In-Hospital Cardiac Arrest in Sweden.

Referencia: Acta Anaesthesiol Scand. 2026 Nov;70(10):e70346. doi: 10.1111/aas.70346.

Autores: Fovaeus H, Holmen J, Mandalenakis Z, Torell MF, Molin M, Rawshani A, Castellheim AG.

PMID: 42802016

DOI: 10.1111/aas.70346

Tipo de estudio: Cohorte retrospectiva nacional de registro

Mensaje principal: 525 eventos pediátricos; supervivencia a 30 días de 49% fuera de dos centros especializados frente a 70% en ellos.

Comentario crítico: Veinte años de cambios asistenciales, selección de registro y diferencias de edad, cardiopatía y localización. Comparaciones crudas no estiman el efecto causal del centro.

Abstract / resumen del registro fuente:

BACKGROUND: National data on pediatric in-hospital cardiac arrest (pIHCA) are limited, and cohorts from highly specialized pediatric centers may not reflect the broader hospital population. We aimed to describe pIHCA reported across Swedish hospitals, with particular focus on hospitals outside the two national centers for highly specialized pediatric cardiac care. METHODS: This retrospective observational registry study included patients aged 0-18 years with pIHCA reported to the Swedish Registry for Cardiopulmonary Resuscitation between January 1, 2005 and September 25, 2025. Cases from the two highly specialized centers were analyzed separately and as part of the complete national registry-reported cohort. The primary outcome was 30-day survival; secondary outcomes included return of spontaneous circulation (ROSC) and 1-year survival. RESULTS: Among 525 pIHCA events, 344 occurred outside the two highly specialized centers and 181 at these centers. In the broader Swedish hospital population, 31.7% of arrests occurred on hospital wards, 26.2% in emergency departments, and 22.7% in intensive care units. CPR was initiated immediately in 81.4% of events. Forty-nine percent survived to 30 days, and 44% to 1 year. At the two highly specialized centers, infants, congenital heart disease, and arrests in intensive care units were substantially more common, and 30-day survival was 70%. CONCLUSION: Patient characteristics, arrest location, and survival differed substantially between the broader Swedish hospital population and the two highly specialized centers. These findings highlight the heterogeneity of pIHCA across hospital settings and the importance of considering hospital type and case mix when interpreting pIHCA data. EDITORIAL COMMENT: Pediatric patient in-hospital cardiac arrest is uncommon, though they registered in a national database in Sweden. This analysis presents 20 years of experience and follow-up for these cases describing associated factors.

37. Proactive versus resuscitative extracorporeal membrane oxygenation for low cardiac output syndrome after cardiac surgery.

Referencia: J Thorac Cardiovasc Surg. 2026 Oct;172(4):1106-1113.e1. doi: 10.1016/j.jtcvs.2026.05.003. Epub 2026 May 14.
Autores: Halloum A, Tabbutt S, Ghanayem N, Lasa JJ, Banerjee M, Zhang W, Mikesell K, Charpie JR, McCammond AN, Moynihan KM, Panchal A, Raymond TT, Steurer MA.
PMID: 42140553
DOI: 10.1016/j.jtcvs.2026.05.003
Tipo de estudio: Cohorte retrospectiva multicéntrica con ajuste por propensión
Mensaje principal: ECPR tras cirugía congénita se asoció con mayor mortalidad hospitalaria que ECMO proactiva (OR 1,82); en RCP menor de 30 minutos el IC incluyó la unidad.

Comentario crítico: Gravedad dinámica y selección del momento de canulación generan confusión residual. Ausencia de diferencia significativa en subgrupo no prueba equivalencia ni convierte 30 minutos en umbral universal.

Abstract / resumen del registro fuente:

OBJECTIVES: We sought to evaluate extracorporeal membrane oxygenation (ECMO) use for low cardiac output syndrome (LCOS) after congenital heart surgery. Our primary aims were (1) to compare hospital mortality and morbidity for proactive ECMO versus extracorporeal cardiopulmonary resuscitation (ECPR) and (2) to assess the impact of cardiopulmonary resuscitation (CPR) duration. Our secondary aim was to investigate pre-ECMO vasoactive inotropic scores (VIS). METHODS: This is a retrospective analysis from the Pediatric Cardiac Critical Care Consortium that includes all patients after cardiopulmonary bypass surgery cannulated to ECMO in the first 72 postoperative hours for LCOS. We performed univariable, multivariable, and propensity score analyses to quantify the effect of proactive ECMO versus ECPR on hospital mortality. RESULTS: ECPR had a greater rate of hospital mortality than proactive ECMO (odds ratio, 1.82; 95% CI 1.32-2.51). Patients who received ECPR had shorter aortic clamp time (median, 84.5; range, 54-124 vs 108, 68-178). STAT category was not a significant predictor of hospital mortality. Risk-adjusted mortality for duration of CPR less than 30 minutes was not different from proactive ECMO (odds ratio, 0.81; 95% CI, 0.48-1.36). The greatest pre-ECMO VIS was lower with ECPR (median, 12.5, interquartile range, 8.0-18.0) than with proactive ECMO (18, 12.5-26.0). CONCLUSIONS: For early postoperative ECMO for LCOS, ECPR has a greater risk-adjusted hospital mortality than proactive ECMO, with CPR duration of less than 30 minutes being the exception. Pre-ECMO VIS was lower for ECPR. Lower VIS, shorter aortic crossclamp times, and an unexpectedly high proportion of lower STAT categories indicate that ECPR is not uncommon in patients deemed lower risk.

Causas reversibles, toxicología y circunstancias especiales

4. Prehospital management and outcomes of traumatic cardiac arrest in older adults: a French nationwide registry study.

Referencia: Resusc Plus. 2026 Sep 10;32:101486. doi: 10.1016/j.resplu.2026.101486. eCollection 2026 Nov.
Autores: Benhamed A, Morcel B, David JS, Ter Avest E, Gauss T, van Oppen J, Tazarourte K, Mercier E; RéAC investigators.
PMID: 42825123
DOI: 10.1016/j.resplu.2026.101486
Tipo de estudio: Cohorte multicéntrica de registro
Mensaje principal: En 5595 paradas traumáticas, los mayores tuvieron más ROSC (22,5% frente a 18,6%) pero menor supervivencia a 30 días (0,5% frente a 1,2%).

Comentario crítico: Diferencias de mecanismo, lesiones e intervenciones pueden confundir la asociación. Pocos supervivientes mayores; no derivar una regla de exclusión por edad ni confundir ROSC con recuperación duradera.

Abstract / resumen del registro fuente:

BACKGROUND: Traumatic cardiac arrest (TCA) carries an overall poor prognosis, yet the impact of advanced age on prehospital management and outcomes remains poorly characterised. Whether older patients with TCA present distinct clinical profiles or respond differently to resuscitation compared with younger adults is largely unknown. METHODS: We conducted a multicenter cohort study using data from the French National Out-of-Hospital Cardiac Arrest Registry (RéAC). All adult patients (≥18 years) with out-of-hospital TCA were included. Patients were categorised as adults (18-64 years) or older adults (≥65 years). The primary outcome was return of spontaneous circulation (ROSC). Secondary outcomes included survival at hospital admission (D0), 30-day survival (D30), and favourable neurological outcome (Cerebral Performance Category 1-2 at D30). Univariate and multivariable logistic regression analyses were performed. A pre-specified subgroup analysis stratified older patients into three age categories (65-74, 75-84, ≥85 years). RESULTS: Among 5595 patients (4249 younger adults; 1346 older adults [24.1%]), older patients more often achieved ROSC (22.5% vs 18.6%; OR 1.22, 95%CI 1.03-1.45) but were less likely to survive to 30 days (0.5% vs 1.2%; OR 0.34, 95%CI 0.15-0.81). Survival at hospital admission did not differ after adjustment (16.1% vs 13.3%; OR 1.14, 95%CI 0.95-1.38). Older patients more often sustained a fall (52.2% vs 28.5%) and less often sustained thoracic injuries (43.8% vs 59.6%). They received fewer trauma-specific prehospital interventions, most notably thoracostomy (15.2% vs 23.9%) and fluid resuscitation (28.3% vs 37.4%). CONCLUSIONS: In this large French registry study, older patients with TCA achieved return of spontaneous circulation more often than younger adults but were less likely to survive to 30 days. Age alone should not preclude resuscitative efforts, but a concurrent or precipitating medical cause of arrest should be systematically considered in this population.

20. Prone CPR After Cementation-Induced Vasoplegia and Bezold-Jarisch Asystole in Spine Surgery: Case Report.

Referencia: JBJS Case Connect. 2026 Sep 24;16(3). doi: 10.2106/JBJS.CC.25.00606. eCollection 2026 Jul 1.
Autores: Ramírez-Paesano CR, Villegas-Alzate JD, Colina-Vargas YA, Morgenstern R, Morgenstern C.
PMID: 42809640
DOI: 10.2106/JBJS.CC.25.00606
Tipo de estudio: Caso clínico perioperatorio
Mensaje principal: Una parada tras cementación vertebral se resolvió con RCP en prono y soporte dirigido; hubo supervivencia neurológicamente intacta.

Comentario crítico: Mecanismo de vasoplejía/reflejo inferido, sin demostración causal. Un caso no compara prono con supino ni define qué pacientes se benefician.

Abstract / resumen del registro fuente:

CASE: A 76-year-old White woman, with severe back pain, severe osteoporosis, rheumatoid arthritis, Parkinson's disease, and hypertension, presented with proximal junctional failure and progressive thoracic kyphosis and developed abrupt SpO2/EtCO2 decline, hypotension, bradycardia, and asystole immediately after cementing 20 pedicle screws. Prone CPR and 1 mg epinephrine achieved return of spontaneous circulation; ventricular tachycardia was cardioverted. TEE showed a hyperdynamic heart without RV dilation. CTA excluded major PE, revealing tiny polymethylmethacrylate deposits and perivertebral leak. CONCLUSION: Findings suggest immunohumoral vasoplegia with relative preload loss triggering a Bezold-Jarisch reflex. Early recognition, prone CPR, and POCUS-guided, goal-directed resuscitation enabled neurologically intact survival.

27. Suspected Pregabalin Overdose Presenting With Out-of-Hospital Asystolic Cardiac Arrest and Fatal Multiorgan Failure: A Case Report.

Referencia: Cureus. 2026 Aug 28;18(8):e115355. doi: 10.7759/cureus.115355. eCollection 2026 Aug.
Autores: Baspinar M.
PMID: 42802809
DOI: 10.7759/cureus.115355
Tipo de estudio: Caso clínico toxicológico
Mensaje principal: Parada en asistolia tras sospecha de intoxicación por pregabalina, seguida de fallo multiorgánico y fallecimiento.

Comentario crítico: Ingesta sospechada, con incertidumbre sobre causalidad y factores concomitantes. No establece dosis umbral ni permite separar lesión tóxica de lesión isquémica posparada.

Abstract / resumen del registro fuente:

Pregabalin overdose is generally considered to have a relatively benign clinical course. However, severe respiratory depression, coma, and life-threatening clinical deterioration have rarely been reported, particularly in patients with high-dose ingestion or delayed recognition. We present the case of a 26-year-old male who was found unconscious following suspected intentional ingestion of approximately 14 pregabalin 300 mg capsules (4.2 g). On arrival of the emergency medical team, the patient was found to be in out-of-hospital cardiac arrest with an initial rhythm of asystole. Return of spontaneous circulation was achieved after 20 minutes of cardiopulmonary resuscitation. On admission, profound metabolic acidosis (pH: 6.43) and severe hyperlactatemia (lactate: 29 mmol/L) were present. During follow-up, the patient developed rhabdomyolysis, acute kidney injury requiring renal replacement therapy, marked transaminase elevation compatible with ischemic hepatitis, and pancreatic enzyme elevation. Despite aggressive supportive treatment, the patient died on the fourth day due to refractory shock and multiorgan failure. Although pregabalin overdose is often benign, suspected high-dose ingestion may lead to profound central nervous system depression, loss of airway protective reflexes, aspiration, respiratory arrest, and fatal post-cardiac arrest multiorgan failure. Early airway protection and close hemodynamic monitoring are essential. We present a rare, fatal case of a young adult who developed multi-organ dysfunction syndrome following suspected severe pregabalin intoxication.

30. Asystole Likely Due to a Vagal Reflex During Routine Gynecologic Surgery: A Case Report.

Referencia: Cureus. 2026 Aug 27;18(8):e115281. doi: 10.7759/cureus.115281. eCollection 2026 Aug.
Autores: Lebowitz M, Azzarello T.
PMID: 42801140
DOI: 10.7759/cureus.115281
Tipo de estudio: Caso clínico perioperatorio
Mensaje principal: Asistolia inmediatamente tras neumoperitoneo, con ROSC después de desinsuflación y compresiones.

Comentario crítico: Relación temporal compatible con reflejo vagal, no prueba exclusiva del mecanismo. No valida cribado preoperatorio de síncope como intervención eficaz.

Abstract / resumen del registro fuente:

Vagal-mediated cardiovascular responses can occur following carbon dioxide pneumoperitoneum during laparoscopic surgery. In rare cases, an exaggerated vagal reflex may result in profound bradycardia or asystole. We report the case of a 44-year-old woman (American Society of Anesthesiologists physical status II) who developed abrupt bradycardia progressing to asystolic cardiac arrest immediately after abdominal insufflation during an elective minimally invasive gynecologic procedure. The planned operation included hysteroscopy with MyoSure (Hologic, Inc., Marlborough, MA, US) resection, NovaSure (Hologic) endometrial ablation, Acessa (Hologic) radiofrequency fibroid ablation, diagnostic laparoscopy, and salpingectomy for symptomatic uterine fibroids refractory to conservative management. Her past medical history was notable only for uterine fibroids and recently diagnosed hypertension. Preoperative laboratory testing and vital signs were within normal limits, and electrocardiography demonstrated normal sinus rhythm without clinically significant rhythm abnormalities. Immediately following the bradycardia, one milligram of atropine was administered intravenously. The patient then became asystolic, pneumoperitoneum was evacuated, and cardiopulmonary resuscitation was initiated. Return of spontaneous circulation was achieved after a single round of compressions, with restoration of normal sinus rhythm. The intra-abdominal portion of the procedure was subsequently aborted, and the patient remained hemodynamically stable postoperatively. At cardiology follow-up nine days postoperatively, the patient

reported prior vasovagal-type episodes, including syncope following influenza vaccination and near-syncope during magnetic resonance imaging with intravenous contrast. This case highlights the importance of rapid recognition and management of vagally mediated cardiac events in the operating room. It also raises the question of whether targeted preoperative assessment for prior syncope or vasovagal episodes may help identify patients at increased risk for exaggerated vagal responses during procedures involving pneumoperitoneum, a potential area for future investigation.

Factores humanos, ética, formación e implementación

1. Resuscitative Transesophageal Echocardiography Simulation-Based Education for Extracorporeal Cardiopulmonary Resuscitation Cannulation Guidance.

Referencia: J Cardiothorac Vasc Anesth. 2026 Sep 5:S1053-0770(26)00883-9. doi: 10.1053/j.jvca.2026.09.002. Online ahead of print.
Autores: Pandompatam G, Bui A, Shapiro A, Christensen J, Milian RD.
PMID: 42829321
DOI: 10.1053/j.jvca.2026.09.002
Tipo de estudio: Evaluación educativa antes-después
Mensaje principal: El curso de ETE para canulación ECPR elevó la mediana de conocimientos del 53% al 93%.

Comentario crítico: Sin grupo control ni desenlaces clínicos; comodidad y conocimientos inmediatos no acreditan competencia, retención ni seguridad durante una canulación real.

Abstract / resumen del registro fuente:

OBJECTIVES: A simulation-based learning (SBL) resuscitative transesophageal echocardiography (TEE) course was developed to teach a focused extracorporeal cardiopulmonary resuscitation (ECPR) cannulation guidance protocol for critical care practitioners. DESIGN: The four-hour SBL course was conducted for critical care practitioners with no prior formal TEE training. SETTING: University hospital, simulation center. PARTICIPANTS: Critical care practitioners, voluntary. INTERVENTIONS: The course implemented ordered sessions: didactics, TEE simulation, and hands-on ECPR cannulation simulation scenarios. MEASUREMENTS AND MAIN RESULTS: Pre and post course knowledge assessment and surveys were completed. Median knowledge assessment score improved from 53% to 93% (P < .001). Survey responses yielded significant median score improvement in comfort levels of SBL TEE for ECPR guidance using a 5-point Likert scale (p-value <0.001). CONCLUSIONS: An SBL resuscitative TEE course focused on ECPR cannulation guidance can provide a framework for teaching these skills to critical care practitioners.

11. Adaptation of the CONOCES-BLS scale to citizens: evidence of content validity and preliminary psychometric evaluation.

Referencia: Resusc Plus. 2026 Sep 10;32:101481. doi: 10.1016/j.resplu.2026.101481. eCollection 2026 Nov.
Autores: Marín-Maicas P, Soler-Sanchis Á.
PMID: 42820047
DOI: 10.1016/j.resplu.2026.101481
Tipo de estudio: Adaptación y validación psicométrica preliminar
Mensaje principal: CONOCES-BLS-Citizens mostró acuerdo de contenido alto y alfa de Cronbach 0,82.

Comentario crítico: Consistencia interna no equivale a validez predictiva ni destreza práctica. ES12 mostró menor claridad y ES2/ES5 menor contribución; precisa validación externa y estabilidad temporal.

Abstract / resumen del registro fuente:

INTRODUCTION: Out-of-hospital cardiac arrest constitutes a high-priority health emergency. The evidence underlines the importance of early actions of bystanders through the activation of the emergency system, basic cardiopulmonary resuscitation, and defibrillation. Nevertheless, basic life support training in the general population is irregular, and limitations exist on the availability of validated instruments to assess knowledge in this area. OBJECTIVE: To adapt the CONOCES-BLS scale for use in the adult general population and to obtain initial evidence supporting its content validity through expert consensus, followed by a preliminary psychometric evaluation. METHOD: Methodological study on the adaptation and content validity and preliminary test of the instrument in three phases. In the first, the items were adapted to the context of an adult citizen. Then, content validity was assessed through a Delphi panel, and lastly, a pilot test was conducted for the initial psychometric analysis. RESULTS: The

content validity showed high levels of agreement, >0.90 in every item, and K* coefficients between 0.91 and 1, providing initial evidence supporting the content validity of the adapted instrument. All the items were considered essential, although item ES12 was less clear (0.71). In the psychometric analysis, the scale obtained a Cronbach's alpha of 0.82, demonstrating an adequate internal consistency. Items with a lower contribution to the construct were identified, especially ES2 and ES5. CONCLUSION: The adapted CONOCES-BLS-Citizens scale provides initial evidence supporting its content validity for assessing BLS knowledge in the adult general population. As the first instrument specifically adapted for this purpose, it may support the evaluation of community BLS knowledge. Further studies are needed to strengthen the psychometric evidence supporting its use.

17. Association of knowledge and observed skills with self-reported readiness of nurses and midwives to perform cardiopulmonary resuscitation in a tertiary hospital in Ghana: a cross-sectional study.

Referencia: BMC Nurs. 2026 Sep 1;25(1):903. doi: 10.1186/s12912-026-05327-y.
Autores: Opoku-Danso R, Bockor MA, Quayson E, Boahemaa J, Odoom E, Owusu G.
PMID: 42816852
DOI: 10.1186/s12912-026-05327-y
Tipo de estudio: Transversal analítico
Mensaje principal: En 271 enfermeras y matronas, 94,8% tuvo conocimiento bajo, 65,7% habilidades adecuadas y 90% preparación autopercibida moderada.

Comentario crítico: Autopercepción y destreza no son intercambiables. Causalidad inversa, categorizaciones y asociación paradójica con conocimiento limitan la interpretación de la regresión.

Abstract / resumen del registro fuente:

BACKGROUND: Cardiopulmonary resuscitation (CPR) is a critical emergency intervention, yet evidence on CPR competence and readiness among nurses and midwives in Ghana is limited. This study assessed CPR knowledge, observed skills, self-reported readiness, and factors associated with readiness in a tertiary hospital. METHODS: An analytical cross-sectional study was conducted among nurses and midwives in critical and emergency care units. Of 331 eligible staff, 271 participated (81.9% response rate). Knowledge was assessed using a structured test, skills were observed on a manikin using a 12-item checklist and self-reported readiness using an 11-item Likert scale. Data were analysed using descriptive statistics, chi-square tests and binomial logistic regression. RESULTS: Most respondents had low CPR knowledge (94.8%), while 65.7% demonstrated adequate observed skills and 90.0% reported moderate readiness. In the binomial logistic regression, adequate CPR skills were associated with moderate readiness (AOR = 12.84, 95% CI [4.09, 40.36], p < .001). Moderate knowledge was associated with lower odds of moderate readiness compared with low knowledge (AOR = 0.11, 95% CI [0.03, 0.46], p = .003), although this finding should be interpreted cautiously. Other demographic and training variables were not significant predictors. CONCLUSION: CPR preparedness was characterised by low theoretical knowledge, comparatively better but incomplete observed skills and moderate self-reported readiness among the nurses and midwives. Observed CPR skills were strongly associated with readiness. Therefore, regular simulation-based training and competency assessment combining knowledge testing with observed practical performance are recommended. CLINICAL TRIAL NUMBER: Not applicable.

25. Impact of Step Stool in the Delivery of CPR by Healthcare Providers: a Simulation-Based Study.

Referencia: Indian Pediatr. 2026 Sep 28. doi: 10.1007/s13312-026-00429-x. Online ahead of print.
Autores: Sarkar M, Samanta M, Sen S, Sinharay N, Ali M, Roy A, Ramachandra G.
PMID: 42804062
DOI: 10.1007/s13312-026-00429-x
Tipo de estudio: Estudio prospectivo en simulación con medidas repetidas
Mensaje principal: En 72 profesionales, el escalón aumentó profundidad media 4,5 mm; el incremento fue mayor en profesionales de menor talla.

Comentario crítico: Siempre sin escalón antes y con escalón después: aprendizaje y efecto de orden. Resultados de maniquí y un solo tamaño de escalón; adaptar ergonomía y verificar calidad real.

Abstract / resumen del registro fuente:

OBJECTIVES: To assess the impact of using a standard height step stool on the quality of pediatric cardiopulmonary resuscitation (CPR) for health care providers (HCP) of different heights in a simulated environment. METHODS: A simulation-based prospective

cross-sectional study was conducted in a tertiary care referral hospital in Eastern India using a quantitative CPR (QCPR) training manikin (Little Junior QCPR, Laerdal Medical, Norway). A total of 8 min of CPR session was conducted, where 2 compressors performed alternatively in every 2-min segment without a step stool. After a 15-min rest, the session was repeated using a standard step stool (21.5 cm). The quality of chest compression was assessed using Q-CPR Review software v2.0 in three defined height tertiles (short, medium and tall). Compression rate, depth, good release percentage, and app-derived total scores were assessed as the primary outcome. Every compressor provided feedback regarding the level of their comfort, fatigue, and bodyache, graded on a Likert scale. RESULTS: Out of 80 healthcare providers (HCPs) who were screened, 72 participated in 36 CPR sessions; each CPR session had two cycles of CPR, one without and one with step stool. The mean (SD) participant height was 167 (6.5) cm. Overall, mean compression depth increased by 4.5 mm, adequate compression depth improved by 20%, and adequate recoil improved by 13%. In the shortest height tertile, compression depth increased by 10 mm. Additionally, 83.3% of participants reported greater comfort while performing CPR with the step stool. CONCLUSION: Step stool improved the compression depth, reduced incomplete recoils, and improved CPR quality among HCPs in simulation setting, with a greater advantage among the shorter HCPs.

35. Shared Decision making aids in palliative care: A systematic review & meta-analysis of randomized controlled trials.

Referencia: Palliat Med. 2026 Oct;40(9):1229-1254. doi: 10.1177/02692163261464375. Epub 2026 Jul 28.
Autores: El Khoury J, Garofalo R, Kilpatrick MM, Mohabbat AB, Robinson MT, Mead-Harvey C, Lukman Z, Prokop LJ, Abu Dabrh AM.
PMID: 42517466
DOI: 10.1177/02692163261464375
Tipo de estudio: Revisión sistemática y metaanálisis de ensayos
Mensaje principal: Dieciséis ensayos: ayudas a la decisión mejoraron conocimiento y redujeron preferencia declarada por RCP (OR 0,28).

Comentario crítico: Evidencia global de baja calidad; menor preferencia por RCP no equivale a mejor calidad de decisión ni mayor concordancia con valores. Evaluar comprensión y autonomía, no perseguir una dirección de preferencia.

Abstract / resumen del registro fuente:

BACKGROUND: Shared Decision Making in palliative care encompassing patient-clinician collaboration has shown potential for improved patient outcomes. However, the impact of decision aids intended to support palliative care decision making discussions across clinical care settings remains uncertain. AIM: To assess the impact of shared of decision aids on decision making, clinical outcomes, and quality of life for patients with palliative care needs and their caregivers. DESIGN: Systematic review and meta-analysis of randomized controlled trials, reported according to PRISMA, with overall evidence quality assessed using GRADE. DATA SOURCES: Ovid MEDLINE (all segments), EMBASE, Cochrane CENTRAL, Cochrane Database of Systematic Reviews, and Scopus, from inception through September 20, 2024, without restrictions on publication date, sample size, or language. Eligible studies were randomized controlled trials that included adult patients with palliative care needs or their caregivers, using any form of decision aids. Outcomes encompassed decision-related, clinical, and quality of life measures. RESULTS: Sixteen randomized controlled trials were included. Participant ages ranged from 44 to 85 years. Predominant decision aids were videos or printed materials addressing goals of care and treatment options, with aims that included improving understanding of prognosis and supporting values clarification. Decision aids significantly improved decision-related knowledge (SMD: 0.40, 95% CI: 0.14-0.67, $p = 0.003$) and lowered preference for cardiopulmonary resuscitation (OR: 0.28, 95% CI: 0.20-0.40, $p < 0.001$). They showed no significant impact on decisional conflict, satisfaction, or regret. CONCLUSION: Evidence regarding the effectiveness of decision aids in palliative care decision making is limited and of low overall quality, with observed improvements primarily in patient knowledge and changes in stated treatment preferences rather than established improvements in decision quality or values-concordant care. Future research should prioritize integration into comprehensive shared decision making frameworks, cultural adaptations, and larger-scale studies to enhance patient-centered outcomes.

36. A Walker and Avant concept analysis of slow code practice in end-of-life resuscitation.

Referencia: BMC Palliat Care. 2026 Jul 8;25(1):285. doi: 10.1186/s12904-026-02222-w.
Autores: Gougjehyaran HG, Hassankhani H, Asghari E, Haririan H.
PMID: 42420956
DOI: 10.1186/s12904-026-02222-w
Tipo de estudio: Análisis conceptual Walker y Avant
Mensaje principal: Define slow code y distingue reanimación simbólica o deliberadamente parcial de decisiones transparentes de no reanimar.

Comentario crítico: No es una evaluación de resultados ni una justificación del slow code. Su contribución es conceptual y organizativa; necesita validación empírica y contextualización normativa.

Abstract / resumen del registro fuente:

BACKGROUND: The slow code is a complex and ethically sensitive phenomenon in cardiopulmonary resuscitation (CPR), referring to a deliberately partial or delayed resuscitation attempt in patients with poor prognosis or terminal conditions. Although it is recognized in clinical practice, the concept remains ambiguous and ethically controversial. Clarifying its defining attributes, antecedents, and consequences is essential for ensuring ethical and responsible end-of-life decision-making in healthcare. METHODS: This study applied Walker and Avant's (2019) concept analysis method to clarify the concept of slow code in CPR. A comprehensive literature review was performed using PubMed, Scopus, Web of Science, CINAHL, ProQuest, and SID databases. The search covered studies published up to 2025 in both English and Persian. The following keywords and their combinations were used with Boolean operators AND and OR: slow code, symbolic resuscitation, code status, do not resuscitate, end-of-life decision-making, nursing ethics, and CPR ethics. Relevant literature was screened and analyzed to identify defining attributes, antecedents, and consequences of the concept. RESULTS: The analysis revealed that the slow code represents a symbolic and ethically complex clinical act, performed when resuscitation is deemed clinically futile but ethical, cultural, or familial expectations pressure healthcare teams to act. Defining attributes include partial or intentionally delayed resuscitation, symbolic compliance with clinical or institutional norms, and an underlying intent to reconcile professional ethics with contextual constraints. Antecedents include patient-related factors (terminal illness, poor prognosis, low probability of return of spontaneous circulation), team-related factors (moral distress, perception of futility, prior ethical conflict), and organizational factors (absence of DNR policies, ambiguous end-of-life care guidelines, hierarchical team culture, and time pressure). Consequences include prolonged patient suffering, family misunderstanding or loss of trust, moral distress and emotional burden among healthcare providers, and organizational ethical dilemmas. However, transparent management guided by ethical frameworks can facilitate constructive discussions about end-of-life care, improve communication with families, and inform institutional policy development. CONCLUSIONS: This concept analysis clarifies slow code as a distinct yet ethically controversial phenomenon characterized by intentionally limited or symbolic resuscitation despite perceived medical futility. Clarifying this concept does not endorse its clinical use; rather, it provides a clearer conceptual framework for distinguishing slow code from related end-of-life practices, supporting ethical education, informing institutional policies, and guiding future empirical research. The findings further highlight the importance of advance care planning, transparent communication, and documented do-not-resuscitate (DNR) decisions as ethically appropriate alternatives to slow code in end-of-life care.

40. Evaluating CPR Breast Attachment Impact on EMT Training: A Randomized Controlled Trial.

Referencia: Simul Healthc. 2026 Oct 1;21(5):289-297. doi: 10.1097/SIH.0000000000000906. Epub 2026 Oct 1.
Autores: Sharma D, Geogy N, Roach VA.
PMID: 41524260
DOI: 10.1097/SIH.0000000000000906
Tipo de estudio: Ensayo aleatorizado en simulación
Mensaje principal: El accesorio mamario de entrenamiento se asoció con mayor disposición, comodidad y confianza para iniciar RCP.

Comentario crítico: Desenlaces autorreferidos, múltiples comparaciones y sin magnitudes de efecto o tamaño muestral en el abstract. No acredita mejor RCP real ni supervivencia; interesa evaluar transferencia y retención.

Abstract / resumen del registro fuente:

INTRODUCTION: Males have higher odds of receiving bystander cardiopulmonary resuscitation (B-CPR) and surviving out-of-hospital cardiac arrest compared with females. Studies suggest that concerns about breast exposure, causing injury, or being accused of sexual harassment may contribute to gender disparities in B-CPR. This study examines whether using the ReviveHer breast attachment during CPR training impacts Emergency Medical Technician (EMT) students' willingness, comfort, confidence, and concerns when performing CPR on breasted and nonbreasted individuals. METHODS: EMT students at North Seattle College participated in a 2-day CPR training and completed pre- and posttraining surveys assessing participants' willingness, confidence, and concerns specific to providing CPR to breasted and nonbreasted individuals. Participants were randomized into control or experimental groups. The control group used standard flat-chested manikins, whereas the experimental group trained with the ReviveHer breast attachment. RESULTS: The experimental group showed significantly increased willingness to initiate CPR across all body types and settings: breasted public (P = 0.011), breasted private (P = 0.015), nonbreasted public (P = 0.009), and nonbreasted private (P = 0.024). They also reported greater comfort in unclothing a breasted body in a private setting to perform CPR (P = 0.017), increased confidence in providing compressions to an unclothed breasted body (P = 0.043), and decreased fear of sexual harassment accusations (P = 0.044). CONCLUSIONS: Incorporating the ReviveHer breast attachment into CPR training enhances EMT students' preparedness to administer CPR to both breasted and nonbreasted individuals. It increases comfort and confidence while reducing concerns related to social and legal repercussions, potentially addressing key barriers to equitable B-CPR delivery.

41. "I Don't Speak English Well." Do Language Barriers Affect Automated External Defibrillator Use? A Randomized Simulation Study With Spanish-Speaking Laypeople.

Referencia: Simul Healthc. 2026 Oct 1;21(5):331-336. doi: 10.1097/SIH.0000000000000905. Epub 2026 Oct 1.

Autores: Santos-Folgar M, Barcala-Furelos R, Fernández-Méndez M, Otero-Agra M, Waffelaert-Pascual J, Martínez-Isasi S, Bermúdez JE, Aranda-García S.

PMID: 41440371

DOI: 10.1097/SIH.0000000000000905

Tipo de estudio: Ensayo piloto aleatorizado en simulación

Mensaje principal: En 50 estudiantes hispanohablantes, las instrucciones en español mejoraron comprobación de seguridad (96% frente a 12%) y reinicio de RCP (83% frente a 12%).

Comentario crítico: Participantes jóvenes con inglés B1 mínimo y un entrenador concreto. Menor tiempo desde parches a descarga en inglés no implica mejor reanimación si se omite seguridad o RCP; requiere replicación comunitaria.

Abstract / resumen del registro fuente:

INTRODUCTION: Early defibrillation significantly improves survival following out-of-hospital cardiac arrest. Public access automated external defibrillators (AEDs) facilitate rapid shock delivery, enhancing survival rates and neurological outcomes. Language barriers may impede the effectiveness of these devices, particularly in multilingual environments. This study aimed to evaluate AED operation skills and time during a simulated cardiac arrest scenario, comparing native language instructions (Spanish: AEDnative) with foreign language instructions (English: AEDforeign). MATERIALS AND METHODS: A randomized pilot study was conducted with 50 Spanish-speaking university students (42% female, median age: 21 years) with no prior AED training and a minimum B1 level of foreign language proficiency (English). Participants were randomly assigned to either the AEDnative or AEDforeign group. The simulated cardiac arrest scenario was performed on a mannequin using a multilingual AED trainer. AED performance, response times, language proficiency, and demographic data were recorded. Participant actions were video-recorded and analyzed using observational methodology. RESULTS: Both groups achieved high completion rates (>70%) in most AED operation steps. However, the AEDnative group performed significantly better in two critical safety actions: ensuring no one touched the victim before shock (96% vs. 12%) and initiating CPR after shock delivery (83% vs. 12%). No differences were found in the time to pad placement, but the AEDforeign group delivered the shock significantly faster after pad placement (19 s vs. 33 s; P = 0.016). CONCLUSIONS: AED use remains feasible, even in a nonnative language; however, foreign-language instructions may compromise performance safety and delay or omit postshock CPR initiation.

Resultados tangenciales

Se conservan por trazabilidad, pero la RCP no es la pregunta central o la población no corresponde directamente a reanimación humana. No se utilizan para modificar algoritmos de RCP.

3. Change in Anticoagulant Strategy During IMPELLA Support and Improved Outcomes.

Referencia: Artif Organs. 2026 Oct 2. doi: 10.1111/aor.70261. Online ahead of print.
Autores: Nakamura M, Imamura T, Nakagaito M, Izumida T, Kinugawa K.
PMID: 42827284
DOI: 10.1111/aor.70261
Tipo de estudio: Cohorte retrospectiva antes-después
Mensaje principal: En 97 pacientes con Impella, la nueva estrategia anticoagulante se asoció con menos transfusión y mayor supervivencia.

Comentario crítico: Excluye expresamente RCP previa. Cambio de época y varias intervenciones simultáneas; OR 32,46 con IC 4,28–756,14 muy impreciso. No extrapolar a ECPR.

Abstract / resumen del registro fuente:

BACKGROUND: Nafamostat mesilate (NM), a synthetic serine protease inhibitor, has been used as an anticoagulant in patients undergoing extracorporeal circulatory support who have bleeding or heparin-related adverse effects. The safety and efficacy of NM-based anticoagulation in patients receiving Impella support who develop bleeding or thrombocytopenia remain uncertain. METHODS: Patients who underwent Impella placement without prior cardiopulmonary resuscitation between 2018 and 2026 at our institution were included. In January 2024, the anticoagulation strategy for patients with bleeding or thrombocytopenia was revised to incorporate NM alone or in combination with low-dose heparin, with selective use of a bicarbonate-based purge solution. Differences in 30-day mortality and survival to discharge between the early era (2018-2023) and the late era (2024-2026) were retrospectively evaluated. RESULTS: A total of 97 patients (median age 70 years; 64% male) were analyzed. The daily amount of transfused red blood cell products during Impella support was significantly lower in the late era (0.8 versus 1.8 units, $p = 0.024$). 30-day mortality was significantly lower, and survival to discharge was significantly higher in the late era ($p < 0.05$ for both). Multivariable logistic regression analysis showed that the late era was significantly associated with a higher likelihood of survival to discharge, with an odds ratio of 32.46 (95% confidence interval 4.28-756.14, $p < 0.001$). CONCLUSIONS: The late era, during which a revised anticoagulation strategy incorporating NM and selective use of a bicarbonate-based purge solution was implemented, was associated with lower daily red blood cell transfusion requirements and higher survival to discharge.

9. Gastrointestinal mucormycosis with no classical immunosuppression and the potential for Qat leaves chewing as an unidentified risk factor: a case report.

Referencia: Front Med (Lausanne). 2026 Sep 17;13:1901474. doi: 10.3389/fmed.2026.1901474. eCollection 2026.
Autores: Alanazi FS, Alyami HA, Alzubide SR, Aldosary OF, Alomar SY, Owayed ASF, Mohzari YA, Alamer A.
PMID: 42823954
DOI: 10.3389/fmed.2026.1901474
Tipo de estudio: Caso clínico
Mensaje principal: Mucormicosis gástrica tras parada por infarto, estrés crítico y exposición crónica a qat.

Comentario crítico: La pregunta principal es infecciosa. Un caso sin identificación microbiológica de especie no demuestra causalidad del qat ni permite recomendaciones de RCP.

Abstract / resumen del registro fuente:

Gastrointestinal mucormycosis is a rare, life-threatening invasive fungal infection that is often diagnosed late because of nonspecific clinical and endoscopic findings. Khat or Qat (Catha edulis) leaves may harbor environmental fungi, including Mucor species, and chronic chewing may contribute to gastrointestinal mucosal injury. However, a possible association between Qat use and gastrointestinal mucormycosis has not been established. We report a case of a 60-year-old man with diet-controlled type 2 diabetes mellitus and long-standing Qat chewing who was admitted after an out-of-hospital cardiac arrest secondary to acute myocardial infarction. He had no history of malignancy, transplantation, neutropenia, or immunosuppressive therapy. Return of spontaneous circulation was achieved after 34 min of cardiopulmonary resuscitation, followed by temporary venoarterial extracorporeal membrane oxygenation. On hospital day 14, coffee-ground material was observed through the nasogastric tube, accompanied by a decline in hemoglobin from 14.0 to 9.5 g/dL. Esophagogastroduodenoscopy revealed a fungating, ulcerated lesion involving the gastric fundus and body. Histopathological examination demonstrated extensive necrosis, angioinvasion, and broad, ribbon-like, pauci-septate fungal hyphae with irregular branching, consistent with gastric mucormycosis. Intravenous liposomal amphotericin B was initiated at 8 mg/kg/day. Gastrointestinal bleeding resolved without surgery. Repeat endoscopy one

month later showed marked healing, and follow-up biopsy revealed no residual fungal elements. The patient completed six weeks of antifungal therapy and achieved clinical and histopathological resolution. Fungal culture and molecular identification were not performed, precluding species-level confirmation. In conclusion, this case describes gastric mucormycosis in a patient without profound immunosuppression but with severe physiological stress and chronic Qat exposure. Critical illness, gastric hypoperfusion, and mucosal disruption may have facilitated fungal invasion. Qat chewing is presented as a hypothesis-generating factor because of possible fungal contamination of leaves and repeated mucosal injury; nevertheless, causality cannot be inferred from a single case. Further microbiological and epidemiological studies are required to investigate this potential association.

15. Small Grants, Big Impact: Outcomes of an Internal Excellence in Education Grant Program.

Referencia: J Vet Med Educ. 2026 Sep 30:e20260119. doi: 10.3138/jvme-2026-0119. Online ahead of print.
Autores: Ward JL, Karabulut-Ilgu A.
PMID: 42820843
DOI: 10.3138/jvme-2026-0119
Tipo de estudio: Evaluación retrospectiva de programa educativo veterinario
Mensaje principal: Un programa de 23 ayudas financió innovación docente y adopción curricular.

Comentario crítico: RCP aparece entre varias actividades veterinarias. Sin desenlaces humanos ni intervención específica de RCP; no es un experimento animal de reanimación y se clasifica como tangencial.

Abstract / resumen del registro fuente:

Evidence-based innovation is essential for advancing veterinary medical education, yet dedicated funding for educational research remains limited. In 2016, the Iowa State University College of Veterinary Medicine established the Excellence in Education Grant (EEG) program to provide competitive intramural funding for faculty-led educational research. This Best Practice report evaluates the first 8 years of the program and compares its outcomes with similar initiatives in human medical education. Administrative records, financial data, and project reports from seven funding cycles (2016-2024) were retrospectively reviewed. Outcomes evaluated included project completion, achievement of objectives, curricular implementation, creation of durable educational resources, scholarly dissemination, fiscal utilization, and investigator perceptions of the program. Twenty-three projects received a total of $287,836 in funding (mean award: $12,416); 21 projects proceeded to implementation. Of these, 81% achieved their stated objectives and 71% resulted in sustained curricular adoption, including integration of point-of-care ultrasound, cardiopulmonary resuscitation, antimicrobial stewardship, and faculty development initiatives. Nearly half of funded projects generated durable educational resources including simulation models and digital learning tools. Thirty-eight percent of projects produced conference presentations or peer-reviewed publications. Faculty consistently described the program as an important catalyst for educational innovation, scholarship, and professional development, particularly for clinician-educators. Although project timelines frequently required extension, these challenges informed subsequent improvements in program oversight and fiscal management. The EEG program demonstrates that relatively small institutional seed grants can generate substantial returns through sustained curricular innovation, educational scholarship, and faculty development, providing a practical and replicable best practice model for advancing veterinary medical education.

18. Developmental Osteopenia: An Explanation for Fractures in Young Infants.

Referencia: Acta Paediatr. 2026 Sep 30. doi: 10.1111/apa.70778. Online ahead of print.
Autores: Brook C, Mack J, Squier W.
PMID: 42813526
DOI: 10.1111/apa.70778
Tipo de estudio: Análisis observacional de distribuciones y modelo explicativo
Mensaje principal: Propone osteopenia del desarrollo como explicación de parte de las fracturas infantiles.

Comentario crítico: Umbrales derivados de prematuros y semejanza de distribuciones no establecen la causa de una fractura individual. No excluye maltrato ni permite atribuir lesiones a RCP por sí solo.

Abstract / resumen del registro fuente:

AIM: The aim is to test whether a fraction of full-term infants pass through a phase of postnatal fracture susceptibility and whether this physiological phase explains real-world fracture age distributions in young infants. METHODS: Preterm infant data were used to establish fracture risk zones based on bone quality (using Speed of Sound, SOS) and metabolic activity (Alkaline Phosphatase,

ALP) levels. These reference thresholds were applied to a full-term cohort to identify clinical overlap. Age distributions of full-term infants within risk zones were evaluated alongside paediatric fracture data from the KID Inpatient Database and data concerning rib fractures from cardiopulmonary resuscitation (CPR). RESULTS: The low-SOS and high-ALP tails of the full-term population overlap with risk zones for metabolic bone disease of prematurity (MBDP) during the post-birth trough in bone mineralisation. The log-normal age distributions of full-term infants in these risk zones are indicative of a developmental phase and share the morphology and peak timing of infant rib and multiple fractures, whether registered as abuse, accidental, or CPR-related. CONCLUSION: The synchronisation of fracture peaks with the physiological trough of infant bone quality supports Developmental Osteopenia as an explanatory framework for rib and multiple fractures in young infancy.

33. Postoperative Interventions and Cost Associated With Disposition After Tonsil and Adenoidectomy.

Referencia: Hosp Pediatr. 2026 Oct 1;16(10):872-879. doi: 10.1542/hpeds.2026-009276.
Autores: Toomey V, Heneghan JA, Hall M, Kane JM, Rogerson CM, Dervan LA, Dziorny AC, Kohne JG, Roumeliotis N, Garros D, Cecil C, Goodman DM, Choi DH, Bhalla A.
PMID: 42586557
DOI: 10.1542/hpeds.2026-009276
Tipo de estudio: Cohorte retrospectiva administrativa pediátrica
Mensaje principal: Analiza destino posoperatorio y costes tras cirugía de amígdalas/adenoides; RCP integra un desenlace compuesto.

Comentario crítico: No estudia estrategia de reanimación. Confusión por indicación de UCI y costes modelados; el 2% de eventos emergentes no es una tasa de RCP.

Abstract / resumen del registro fuente:

OBJECTIVE: To evaluate postoperative disposition and resource use among patients admitted to the inpatient unit or pediatric intensive care unit (PICU) following tonsillectomy, adenoidectomy, and tonsillectomy/adenoidectomy (T/A). PATIENTS AND METHODS: This retrospective cohort study featured patients aged 18 years or less after T/A procedures in 38 children's hospitals in the Pediatric Health Information System database (2016-2023). Patients were categorized by postoperative disposition: ambulatory, inpatient unit, inpatient unit with subsequent PICU transfer, or PICU; inpatient admissions were analyzed. Primary outcomes were the frequency of urgent interventions (racemic epinephrine administration and noninvasive ventilation) and emergent interventions or outcomes (invasive mechanical ventilation, cardiopulmonary resuscitation, hemorrhage, blood transfusion, or return to operating room). The secondary outcome was median daily hospital cost. RESULTS: A total of 388 071 T/A procedures were identified, including 316 323 ambulatory and 71 748 inpatient. Among the patients in the inpatient unit and PICU, 2% and 16% received an urgent intervention, and, in both locations, 2% received an emergent intervention or outcome. For patients without interventions, the median daily cost difference between PICU and inpatient unit admissions was $1774. Based on the difference between PICU and inpatient costs for patients with no interventions, we estimate that $2.6 million could be saved if 50% of these patients in the PICU were admitted to the inpatient unit. CONCLUSIONS: A minority of PICU admissions following T/A procedures require urgent or emergent interventions. This suggests that deimplementation of routine T/A PICU admissions may facilitate transitioning patients to the inpatient unit, reducing costs and optimizing PICU use.

39. Advanced reperfusion therapies for acute pulmonary embolism in pregnancy and postpartum.

Referencia: Eur Heart J Acute Cardiovasc Care. 2026 Sep 30;15(9):701-705. doi: 10.1093/ehjacc/zuag047.
Autores: Farmakis IT, Christodoulou KC, Barco S, Keller K, Konstantinides SV, Hobohm L.
PMID: 41914188
DOI: 10.1093/ehjacc/zuag047
Tipo de estudio: Análisis transversal de base administrativa
Mensaje principal: En 12715 hospitalizaciones con TEP asociado al embarazo, la mortalidad fue 29,1% en el grupo de alto riesgo.

Comentario crítico: Alto riesgo incluye varias condiciones además de parada. Mortalidades por tratamiento muy confundidas por gravedad y selección; no comparan eficacia de trombólisis, catéter y ECMO en parada materna.

Abstract / resumen del registro fuente:

AIMS: Pulmonary embolism (PE) remains the leading preventable cause of maternal death in high-income countries. Data on the management of acute PE during pregnancy are limited because pregnant women are systematically excluded from interventional

trials. We evaluated the use and outcomes of advanced reperfusion therapies in pregnancy-associated PE. METHODS: We performed a cross-sectional analysis of the US Nationwide Inpatient Sample from 2016 through 2020. Pregnancy- and puerperium-related hospitalizations were identified using the International Classification of Diseases, Tenth Revision, Clinical Modification (ICD-10-CM) codes. High-risk PE was defined by shock, mechanical ventilation, cardiac arrest, cardiopulmonary resuscitation, or vasopressor support. Advanced reperfusion therapies included systemic thrombolysis (ST), catheter-directed therapy (CDT), surgical embolectomy, and venoarterial extracorporeal membrane oxygenation (VA-ECMO). RESULTS: Among 19 741 880 pregnancy- or puerperium-related hospitalizations, 12 715 (0.06%) were complicated by PE, corresponding to 6.7 (95% CI, 6.6-6.8) hospitalizations per 10 000 live births. The overall in-hospital mortality rate was 0.86% (0.058 [95% CI, 0.048-0.070] deaths per 10 000 live births). Mortality was 0.2% among patients without haemodynamic instability and 29.1% among those with high-risk PE. Advanced reperfusion therapies were used in 3.4% of all pregnancy-associated PE cases and in 32.7% of high-risk cases. In-hospital mortality was 9.8% after ST, 10.7% after CDT, and 50% after VA-ECMO. Major bleeding occurred in 15.7%, 10.7%, and 50%, respectively. CONCLUSION: Pregnancy-associated PE is rare but associated with high mortality in high-risk presentations. Advanced reperfusion therapies are used infrequently, reflecting the limited evidence, highlighting the need for multidisciplinary management, and further research and guidance.

Estudios animales, preclínicos y mecanismos

Dos experimentos animales originales (31 y 32) y una revisión de mecanismos (16). Sus resultados no establecen eficacia o seguridad en pacientes ni deben convertirse en recomendaciones clínicas.

16. Advances in the Mechanisms Underlying Brain Injury after Resuscitation from Cardiac Arrest.

Referencia: Curr Neurovasc Res. 2026 Sep 29. doi: 10.2174/0115672026504763260924073702. Online ahead of print.
Autores: Liu W, Zhou X, Liu W, Ren J, Zhang W.
PMID: 42817093
DOI: 10.2174/0115672026504763260924073702
Tipo de estudio: Revisión mecanística
Mensaje principal: Integra excitotoxicidad, alteraciones mitocondriales, estrés oxidativo y neuroinflamación tras la parada.

Comentario crítico: Hipótesis de intervención multivía sin eficacia clínica demostrada. La búsqueda bibliográfica descrita no basta para considerarla revisión sistemática con evaluación formal del sesgo.

Abstract / resumen del registro fuente:

INTRODUCTION: Cardiac arrest (CA) causes global cerebral ischemia. Secondary reperfusion injury frequently worsens neurological dysfunction, making cerebral resuscitation more difficult, even when cardiopulmonary resuscitation (CPR) helps restore spontaneous circulation (ROSC). With an emphasis on early primary ischemic injury and the ensuing reperfusionassociated pathological cascade, this review clarifies the pathophysiological processes of brain injury after CA-CPR. METHODS: This study reviewed the literature on cerebral pathophysiology following CA-CPR, focusing on studies that explore the mechanisms underlying ischemia, hypoxia, and reperfusion injury. Relevant peer-reviewed articles published between 2016 and 2026 were extracted through searches of PubMed, Embase, and Web of Science. The search keywords included "cardiac arrest," "global cerebral ischemia," "four-vessel occlusion," "asphyxia-induced cardiac arrest," "reperfusion injury," and "neuroprotection." Studies published within the past 5 years were prioritized to reflect recent advancements. RESULTS: Multiple interconnected pathways contribute to brain injury, following a distinct temporal sequence from primary ischemic depolarization to secondary reperfusion-induced dysregulation. These include energy metabolism disorders, excitotoxicity, calcium overload, mitochondrial dysfunction, oxidative stress, and neuroinflammation. Furthermore, major neuroprotective strategies are evaluated for their efficacy in mitigating secondary injury. DISCUSSION: Cerebral resuscitation is particularly difficult owing to the interplay among these complex mechanisms. Consequently, targeting multiple pathways simultaneously may be more effective than focusing on a single one. CONCLUSION: Brain injury after CA-CPR involves multifactorial pathophysiological processes. Elucidating these mechanisms will establish a groundwork for the development of neuroprotective strategies. However, further research is warranted to translate these findings into clinical practice.

31. Mitochondrial proteomic signatures of postcardiac arrest brain injury reveal potential therapeutic targets.

Referencia: J Pharmacol Exp Ther. 2026 Sep;393(9):105009. doi: 10.1016/j.jpet.2026.105009. Epub 2026 Aug 14.
Autores: Ren Y, Fan X, Gong P, Ji X.
PMID: 42700645
DOI: 10.1016/j.jpet.2026.105009
Tipo de estudio: Experimento aleatorizado en ratas y proteómica
Mensaje principal: SRT1720 se asoció con recuperación funcional mitocondrial y reversión de alteraciones proteómicas tras parada asfíctica.

Comentario crítico: Cohortes pequeñas (15 funcional y 9 proteómica), machos y resultados mecanísticos. No demuestra supervivencia o beneficio neurológico humano ni autoriza uso clínico de SRT1720.

Abstract / resumen del registro fuente:

Mitochondrial dysfunction is central to postcardiac arrest brain injury (PCABI); however, the underlying protein networks involved remain poorly defined. SRT1720, a silent information regulator 1 activator, exhibits potential mitochondrial protective effects, although its role and mechanisms in PCABI are unclear. Adult male Wistar rats were randomized into sham, cardiopulmonary resuscitation (CPR), and SRT1720 groups and subjected to 8-minute asphyxia-induced cardiac arrest followed by CPR, with intraperitoneal SRT1720 (5 mg/kg) given 10 minutes after resuscitation. In a functional cohort (n = 15), SRT1720 significantly restored the mitochondrial calcium retention capacity, which was markedly impaired by cardiac arrest/CPR. Complex I activity was selectively suppressed and was restored by SRT1720, whereas other respiratory complex activities remained unchanged. In a parallel proteomic cohort (n = 9), 127 differentially expressed mitochondrial proteins were identified, with metabolic pathways being the most significantly enriched. Integrated network analysis revealed a coordinated pathological signature comprising complex I deficiency (NDUFB4), oxidative stress (NDUFB11), endoplasmic reticulum stress (RPN2), and lipid dysregulation (PLA2). SRT1720 treatment was associated with the reversal of these proteomic alterations and the re-establishment of metabolic homeostasis. Collectively, this multilevel analysis identifies a mitochondrial proteomic network disrupted in PCABI. The functional and proteomic recovery observed with SRT1720 is consistent with enhanced silent information regulator 1 signaling, suggesting a potential therapeutic strategy that warrants further mechanistic validation. SIGNIFICANCE STATEMENT: This study reveals a coordinated mitochondrial protein network-characterized by complex I dysfunction, oxidative stress, endoplasmic reticulum stress, and lipid dysregulation-as a key driver of postcardiac arrest brain injury. Treatment with the silent information regulator 1 activator SRT1720 was associated with the reversal of these proteomic alterations, selective restoration of complex I activity, and recovery of mitochondrial calcium regulation, thereby re-establishing energy metabolism and metabolic homeostasis. These integrated, multilevel findings provide a mechanistic framework for targeting mitochondrial dysfunction in postcardiac arrest brain injury and support SRT1720 as a promising therapeutic candidate.

32. Development of a pediatric pig model of extracorporeal cardiopulmonary resuscitation-induced acute kidney injury.

Referencia: Dis Model Mech. 2026 Sep 1;19(9):dmm052726. doi: 10.1242/dmm.052726. Epub 2026 Oct 2.
Autores: Thomson LM, Mancuso CA, Hyslop R, Khailova L, Chun CN, Zakrzewski J, Niemiec SS, Lehmann TM, Frank BS, Davidson JA.
PMID: 42592726
DOI: 10.1242/dmm.052726
Tipo de estudio: Desarrollo de modelo animal porcino
Mensaje principal: Cuatro lechones con parada hipercaliémica y ECPR mostraron lesión renal y respuesta transcriptómica frente a nueve controles ventilados.

Comentario crítico: Un animal por duración de parada impide estimar variabilidad dentro de cada dosis. Seguimiento de cuatro horas y etiología artificial; plataforma experimental, no intervención terapéutica validada.

Abstract / resumen del registro fuente:

Acute kidney injury (AKI) is a common and severe morbidity following extracorporeal cardiopulmonary resuscitation (ECPR), particularly in children, where AKI is associated with a fourfold increased risk of death. Research into the mechanisms and treatment of ECPR-induced AKI is hampered by the lack of relevant translational models. In this study, we developed a pediatric swine model of ECPR-induced AKI and defined the histological and transcriptomic changes seen in the kidney following ECPR. Four infant swine underwent hyperkalemic cardiac arrest for 5, 10, 15 or 20 min, followed by 4 h of extracorporeal membrane

oxygenation. Mechanically ventilated animals (n=9) were used for comparison. ECPR animals demonstrated progressive histologic, biomarker and physiologic kidney injury with increasing cardiac arrest time. All ECPR-exposed animals demonstrated a distinct transcriptomic response compared to controls, with 1433 differentially expressed genes covering a range of biologic systems including oxidative stress, renal angiogenesis and solute channel formation, protein folding/misfolding, and ribosome biogenesis. This study demonstrates the ability to model ECPR-induced kidney injury in a titratable fashion, serving as a platform for mechanistic and therapeutic studies for this important morbidity.

Tabla acumulativa de evidencia - índice de esta semana

Lote 26/10/2026. Clave de deduplicación: PMID; DOI y referencia completa disponibles en la ficha con el mismo número. Esta tabla contiene los 41 registros de la semana y permite incorporarlos a la base histórica sin asumir que ya estén deduplicados frente a semanas anteriores.

Nº	PMID	Título	Categoría	Estado
1	42829321	Resuscitative Transesophageal Echocardiography Simulation-Based Education for Extracorporeal Cardiopulmonary Resuscitation Cannulation Guidance.	Factores humanos, ética, formación e implementación	Incluido
2	42827672	Associations between the standard deviation of apparent temperature and sudden cardiac arrest during the Taipei Marathon, 2013-2024.	Epidemiología y prevención de la parada cardíaca	Incluido
3	42827284	Change in Anticoagulant Strategy During IMPELLA Support and Improved Outcomes.	Tangencial	Separado
4	42825123	Prehospital management and outcomes of traumatic cardiac arrest in older adults: a French nationwide registry study.	Causas reversibles, toxicología y circunstancias especiales	Incluido
5	42825117	Quantification of blood-based neurovascular unit biomarkers: an analytical platform comparison study.	Cuidados posresucitación y neuropronóstico	Incluido
6	42825116	Association of a smartphone-based CPR assistance system with prehospital outcomes in out-of-hospital cardiac arrest: a pre-post observational study in Bangkok.	Sistemas EMS, respuesta comunitaria y cadena de supervivencia	Incluido
7	42825111	Differences in the rates of bystander cardiopulmonary resuscitation for out-of-hospital cardiac arrest resulting in favourable neurological outcomes according to the regional deprivation index.	Sistemas EMS, respuesta comunitaria y cadena de supervivencia	Incluido
8	42824733	In-hospital cardiac arrest in a resource-limited emergency department in Somalia: Outcomes and priorities for resuscitation system development.	Sistemas EMS, respuesta comunitaria y cadena de supervivencia	Incluido
9	42823954	Gastrointestinal mucormycosis with no classical immunosuppression and the potential for Qat leaves chewing as an unidentified risk factor: a case report.	Tangencial	Separado
10	42823760	Modelling eCPR eligibility after out-of-hospital cardiac arrest: a 10-year retrospective temporospatial analysis from a mixed urban-rural region in Germany.	Reanimación avanzada, ECPR/ECMO y soporte circulatorio	Incluido
11	42820047	Adaptation of the CONOCES-BLS scale to citizens: evidence of content validity and preliminary psychometric evaluation.	Factores humanos, ética, formación e implementación	Incluido
12	42820032	Association between destination hospital level and outcomes in out-of-hospital cardiac arrest patients under a dispatch-guided transport system: a population-based study in Nagoya, Japan.	Sistemas EMS, respuesta comunitaria y cadena de supervivencia	Incluido
13	42823224	External Validation of a Post-Cardiac Arrest Risk Score (SLANT) for In-Hospital Mortality in Patients Receiving Targeted Temperature Management.	Cuidados posresucitación y neuropronóstico	Incluido
14	42823014	Refractory Shock in the Post-Cardiac Arrest Patient.	Cuidados posresucitación y neuropronóstico	Incluido
15	42820843	Small Grants, Big Impact: Outcomes of an Internal Excellence in Education Grant Program.	Tangencial	Separado
16	42817093	Advances in the Mechanisms Underlying Brain Injury after Resuscitation from Cardiac Arrest.	Preclínico / mecanismos	Separado

Nº	PMID	Título	Categoría	Estado
17	42816852	Association of knowledge and observed skills with self-reported readiness of nurses and midwives to perform cardiopulmonary resuscitation in a tertiary hospital in Ghana: a cross-sectional study.	Factores humanos, ética, formación e implementación	Incluido
18	42813526	Developmental Osteopenia: An Explanation for Fractures in Young Infants.	Tangencial	Separado
19	42813260	Association of Chest Compression Metrics During Pediatric CPR With Intra-Arrest Blood Pressure and Survival Outcomes in the United States: Insights From ICU-RESUS.	Reanimación pediátrica	Incluido
20	42809640	Prone CPR After Cementation-Induced Vasoplegia and Bezold-Jarisch Asystole in Spine Surgery: Case Report.	Causas reversibles, toxicología y circunstancias especiales	Incluido
21	42809516	The cost-effectiveness and health equity of prehospital treatment strategies for out-of-hospital cardiac arrest patients: a systematic review.	Sistemas EMS, respuesta comunitaria y cadena de supervivencia	Incluido
22	42807385	Low-flow time and neurological outcomes in AMI patients undergoing ECPR: a retrospective cohort study.	Reanimación avanzada, ECPR/ECMO y soporte circulatorio	Incluido
23	42807371	Real-time transesophageal echocardiography for guiding prolonged cardiopulmonary resuscitation.	Reanimación avanzada, ECPR/ECMO y soporte circulatorio	Incluido
24	42807041	Association between video-guided dispatcher-assisted cardiopulmonary resuscitation and outcomes after out-of-hospital cardiac arrest: a population-based cohort study.	Sistemas EMS, respuesta comunitaria y cadena de supervivencia	Incluido
25	42804062	Impact of Step Stool in the Delivery of CPR by Healthcare Providers: a Simulation-Based Study.	Factores humanos, ética, formación e implementación	Incluido
26	42803986	Extracorporeal cardiopulmonary resuscitation for cardiogenic shock in a Jehovah's witness.	Reanimación avanzada, ECPR/ECMO y soporte circulatorio	Incluido
27	42802809	Suspected Pregabalin Overdose Presenting With Out-of-Hospital Asystolic Cardiac Arrest and Fatal Multiorgan Failure: A Case Report.	Causas reversibles, toxicología y circunstancias especiales	Incluido
28	42802016	A National Pediatric Cohort Study on In-Hospital Cardiac Arrest in Sweden.	Reanimación pediátrica	Incluido
29	42801457	Out-of-hospital cardiac arrest management in the Swiss canton of Valais: a retrospective study on first responders' response and automated external defibrillator efficacy.	Sistemas EMS, respuesta comunitaria y cadena de supervivencia	Incluido
30	42801140	Asystole Likely Due to a Vagal Reflex During Routine Gynecologic Surgery: A Case Report.	Causas reversibles, toxicología y circunstancias especiales	Incluido
31	42700645	Mitochondrial proteomic signatures of postcardiac arrest brain injury reveal potential therapeutic targets.	Preclínico / mecanismos	Separado
32	42592726	Development of a pediatric pig model of extracorporeal cardiopulmonary resuscitation-induced acute kidney injury.	Preclínico / mecanismos	Separado
33	42586557	Postoperative Interventions and Cost Associated With Disposition After Tonsil and Adenoidectomy.	Tangencial	Separado
34	42552213	[Impact of prehospital management on the prognosis of out-of-hospital cardiac arrest].	Sistemas EMS, respuesta comunitaria y cadena de supervivencia	Incluido
35	42517466	Shared Decision making aids in palliative care: A systematic review & meta-analysis of randomized controlled trials.	Factores humanos, ética, formación e implementación	Incluido
36	42420956	A Walker and Avant concept analysis of slow code practice in end-of-life resuscitation.	Factores humanos, ética, formación e implementación	Incluido

Nº	PMID	Título	Categoría	Estado
37	42140553	Proactive versus resuscitative extracorporeal membrane oxygenation for low cardiac output syndrome after cardiac surgery.	Reanimación pediátrica	Incluido
38	41983283	The impact of direct pre-hospital conveyance of patients with out-of-hospital cardiac arrest and a shockable rhythm to a regional cardiac arrest centre.	Sistemas EMS, respuesta comunitaria y cadena de supervivencia	Incluido
39	41914188	Advanced reperfusion therapies for acute pulmonary embolism in pregnancy and postpartum.	Tangencial	Separado
40	41524260	Evaluating CPR Breast Attachment Impact on EMT Training: A Randomized Controlled Trial.	Factores humanos, ética, formación e implementación	Incluido
41	41440371	"I Don't Speak English Well." Do Language Barriers Affect Automated External Defibrillator Use? A Randomized Simulation Study With Spanish-Speaking Laypeople.	Factores humanos, ética, formación e implementación	Incluido