



Current Awareness Update Issue 72, June 2019



Welcome to **June 2019 issue** of the Prehospital Emergency Services Current Awareness Update.

The aim of this Current Awareness Update is to provide a digest of information supporting evidence based practice in prehospital emergency services. Access to resources from open access and NICE Evidence Search journals are freely available to Ambulance Trust staff. A number may be only available via your local Library services, where they exist.

Welcome to the June Issue

Not got an NHS OpenAthens account?

Only one-fifth of NHS ambulance service staff have an OpenAthens account. Don't miss out. Getting one is easy. All you have to do is self-register. Go to this link today and start your NHS OpenAthens journey. [https://openathens.nice.org.uk]



Different ways to access the update

If you are reading this then you are already using the pdf/Word version of the Update. There are alternative social media routes you could try.

Twitter

Follow <u>@LksAse</u> or go to. This account Tweets the latest relevant research for Paramedic Practice as it's published from scholarly/academic journals.

Online Bibliography

All this month's articles included here are available through the Mendeley Group Prehospital Emergency Care Current Awareness Current. Notes access requires a free one off registration. Then click through to see the Abstracts with links to sources of full text.

Last month's and all previous month's articles are available from the <u>backfile</u>. This means that information about articles in in past updates is always available.

RSS

The RSS feeds that are used to create this update are also available online via <u>Feedly</u>. <u>Click through to see</u> the RSS feeds.

KnowledgeShare your personalised Current AwarenessService



Sign up for your personalised Current Awareness Service from KnowledgeShare. Complete the registration form here.

Feedback to

Matt Holland, LKS ASE Librarian

(on behalf of the National Ambulance Research Steering Group)

Email: Matt.Holland@nwas.nhs.uk

This Current Awareness Update was commissioned by the National Ambulance Research Steering Group comprising of research leads from ambulance trusts in England, Scotland and Wales and other experts and groups supporting prehospital research. The aim of the group is to support the strategic development of ambulance and prehospital research whether leading, collaborating in or using research.

Research & Best Practice

The following research papers have been published in the last couple of months.

- Papers listed as **Open Access** are freely available in full text from the link provided.
- Papers listed as NHS Open Athens will require you to log in with an NHS Open Athens User Name and Password to obtain the full text. These links take you to the abstract initially. To read the whole paper, choose either 'full text' or 'pdf' from the options on the abstract page. The full text option will present the article as a single webpage, the pdf. option will open as a digital copy of the original paper. Selecting either will open a page with the following link for you to enter your Athens username and password;

To view this item, select one of the options below:

Login via Athens or your home organisation

To create your own Athens username and password, simply visit: https://openathens.nice.org.uk/

Where papers are not available either through Open Access or with your NHS Open Athens you may be able to
get access through your own Library Service or from the <u>LKS ASE Request an article service</u>, or University
Library, if you are registered on a course.

The research papers have been arranged by the topic headings below: (Ctrl & Click on the heading to go straight to that section)

<u>Prehospital Practitioners – Professional Development</u>

Prehospital Research – Methods and Discussion

Diagnosis & Triage

Patient Profile

Helicopter Emergency Medical Services

On-Scene Interventions

Airway Management, Resuscitation & CPR

You can find the complete **archive** of the .pdf version of Prehospital Emergency Services Current Awareness Update at the link below.

https://ambulance.libguides.com/currentawareness

Prehospital Practioners – Professional Development



To see the full text use the <u>LKS ASE Request an Article Service</u> or check with your library. For Open Access articles click through. For articles marked NHS Open Athens click through and sign in with your Open Athens account.

Andrew, Emily, Ziad Nehme, Peter Cameron, and Karen Smith. "Drivers of Increasing Emergency Ambulance Demand." *Prehospital Emergency Care*, June 2019, 1–11. https://doi.org/10.1080/10903127.2019.1635670.

Crowe, Remle P., William Krebs, Rebecca E. Cash, Madison K. Rivard, Erin W. Lincoln, and Ashish R. Panchal. "Females and Minority Racial/Ethnic Groups Remain Underrepresented in EMS: A Ten-Year Assessment, 2008-2017." *Prehospital Emergency Care*, June 2019, 1–11. https://doi.org/10.1080/10903127.2019.1634167.

Damjanovic, Domagoj, Paul Biever, Scherer Christian, Thomas Ahne, Jan-Steffen Pooth, Sam Joé Brixius, Philipp Greiner, Christopher Starz, Christoph Benk, and Georg Trummer. "It Is Not about the Machine, It's about the Process: The Role of Simulation in the Development of a Prehospital ECPR-Program." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.044.

Dovey, Gemma Elizabeth, Sammer Tang, and James Mapstone. "Homeless Healthcare in the Emergency Department." *Emergency Medicine Journal : EMJ* 36, no. 6 (June 2019): 378–378. https://doi.org/10.1136/emermed-2019-208564. NHS OpenAthens

Graham, Blair, Ruth Endacott, Jason E Smith, and Jos M Latour. "'They Do Not Care How Much You Know until They Know How Much You Care': A Qualitative Meta-Synthesis of Patient Experience in the Emergency Department." *Emergency Medicine Journal: EMJ* 36, no. 6 (June 2019): 355–63. https://doi.org/10.1136/emermed-2018-208156. NHS OpenAthens

Hoyle, John D., Glenn Ekblad, Tracy Hover, Alyssa Woodwyk, Richard Brandt, Bill Fales, and Richard L. Lammers. "Dosing Errors Made by Paramedics During Pediatric Patient Simulations After Implementation of a State-Wide Pediatric Drug Dosing Reference." *Prehospital Emergency Care*, June 2019, 1–10. https://doi.org/10.1080/10903127.2019.1619002.

Ishimaru, T, T Kubo, K Honno, Y Toyokuni, and Y Fujino. "Near Misses and Presenteeism among Paramedics." *Occupational Medicine*, June 2019. https://doi.org/10.1093/occmed/kqz076.

Jepsen, Klara, Kristina Rooth, and Veronica Lindström. "Parents' Experiences of the Caring Encounter in the Ambulance Service- A Qualitative Study." *Journal of Clinical Nursing*, June 2019, jocn.14964-jocn.14964. https://doi.org/10.1111/jocn.14964.

Jeruzal, Jessica N., Lori L. Boland, Monica S. Frazer, Jonathan W. Kamrud, Russell N. Myers, Charles J. Lick, and Andrew C. Stevens. "Emergency Medical Services Provider Perspectives on Pediatric Calls: A Qualitative Study." *Prehospital Emergency Care* 23, no. 4 (July 2019): 501–9. https://doi.org/10.1080/10903127.2018.1551450.

Kill, Clemens, Erich Wranze-Bielefeld, Maik Klein, Guido Reichert, Thomas Kriebel, and Birgit Ploeger. "Advanced First Medical Aid (AFMA) by Laypersons: The Influence of a Novel Comprehensive Emergency Care Device on Time Intervals for Emergency Treatment before Arrival of EMS on Scene." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.214.

Leggio, William J., Anthony Giguere, Carissa Sininger, Nicole Zlotnicki, Samuel Walker, and Michael G. Miller. "Homeless Shelter Users and Their Experiences as EMS Patients: A Qualitative Study." *Prehospital Emergency Care*, June 2019, 1–6. https://doi.org/10.1080/10903127.2019.1626954.

Micheller, Daniel, William J Peterson, Michael Cover, Graham Smith, Matthew Chapman, Nik Theyyunni, Ross Kessler, Mark J Lowell, and Robert D Huang. "Defining a Theory-Driven Ultrasound Curriculum for Prehospital Providers." *Air Medical Journal* 38, no. 4 (July 2019): 285–88. https://doi.org/10.1016/j.amj.2019.03.018.

Mohd, Suhaili, Norimah Yusof, Lee-Lee Lai, Md. Golam Hossain, Saravana Ramalingam, Suzina Sheikh AB Hamid, Wuey Min Ng, and Azura Mansor. "Improving Knowledge of Doctors and Paramedics through Effective Bone Procurement Workshop: A Cognitive Approach." *BMC Medical Education* 19, no. 1 (December 2019): 238–238. https://doi.org/10.1186/s12909-019-1685-9. Open Access

Moskatel, Leon, and David Slusky. "Did UberX Reduce Ambulance Volume?" *Health Economics* 28, no. 7 (July 2019): 817–29. https://doi.org/10.1002/hec.3888.

Niforatos, Joshua D., Lucas Lin, Jatin Narang, Anthony James, Andrew Singletary, Emily Rose, Justin A. Yax, and Matthew J. Stull. "Financial Conflicts of Interest Among Emergency Medicine Contributors on Free Open Access Medical Education (FOAMed)." *Academic Emergency Medicine*, June 2019. https://doi.org/10.1111/acem.13676. NHS OpenAthens

Olsen, David, Sandra Viggers, Jesper Petersen, Morten Lindkvist, and Anne Lippert. "Ambulance Technician Trainee's Performance in Adherence to Anaphylaxis Guidelines after 'Rapid Cycle Deliberate Practice' Compared to Standard after Event Debriefing." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.136.

Pflanzl, Lucas, and Gerhard Prause. "The Impact of Training in Non-Technical-Skills (NTS) on the Quality of Handovers Regarding Patient Information." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.150.

Quartermain, Albert, Jacob Ellery, and Charles D. Deakin. "Service Review Focusing on Non-Conveyance of Patients Who Proceed to Suffer out of Hospital Cardiac Arrests in the South Central Ambulance Service (SCAS): A Missed Opportunity?" *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.243.

Reay, Gudrun, Jill M. Norris, Lorelli Nowell, K. Alix Hayden, Katherine Yokom, Eddy S. Lang, Gerald C. Lazarenko, and Joanna Abraham. "Transition in Care from EMS Providers to Emergency Department Nurses: A Systematic Review." *Prehospital Emergency Care*, June 2019, 1–18. https://doi.org/10.1080/10903127.2019.1632999.

Sjölin, Helena, Veronica Lindström, Håkan Hult, Charlotte Ringsted, and Lisa Kurland. "Common Core Content in Education for Nurses in Ambulance Care in Sweden, Finland and Belgium." *Nurse Education in Practice* 38 (July 2019): 34–39. https://doi.org/10.1016/j.nepr.2019.05.017.

Smith-Bernardin, Shannon M, Megan Kennel, and Clement Yeh. "EMS Can Safely Transport Intoxicated Patients to a Sobering Center as an Alternate Destination." *Annals of Emergency Medicine* 74, no. 1 (July 2019): 112–18. https://doi.org/10.1016/j.annemergmed.2019.02.004.

Torabi, Mohammad, Fariba Borhani, Abbas Abbaszadeh, and Foroozan Atashzadeh-Shoorideh. "Barriers to Ethical Decision-Making for Pre-Hospital Care Professionals." *Nursing Ethics*, June 2019, 096973301984804–096973301984804. https://doi.org/10.1177/0969733019848044.

Vinson, Amanda J., John Bartolacci, Judah Goldstein, Janel Swain, David Clark, Bryce Kiberd, and Karthik K. Tennankore. "Optimizing Ambulance Transport of Hemodialysis Patients to the Emergency Department: A Cohort Study." *Canadian Journal of Kidney Health and Disease* 6 (January 2019): 205435811984812–205435811984812. https://doi.org/10.1177/2054358119848127. NHS OpenAthens

Watanabe, Brooke L, Gregory S Patterson, James M Kempema, Orlando Magallanes, and Lawrence H Brown. "Is Use of Warning Lights and Sirens Associated With Increased Risk of Ambulance Crashes? A Contemporary Analysis Using National EMS Information System (NEMSIS) Data." *Annals of Emergency Medicine* 74, no. 1 (July 2019): 101–9. https://doi.org/10.1016/j.annemergmed.2018.09.032.

Prehospital Research – Methods and Discussion



To see the full text use the <u>LKS ASE Request an Article Service</u> or check with your library. For Open Access articles click through. For articles marked NHS Open Athens click through and sign in with your Open Athens account.

Singh, Sonia, John A Cheek, Franz E Babl, and Jeffrey S Hoch. "Review Article: A Primer for Clinical Researchers in the Emergency Department: Part X. Understanding Economic Evaluation alongside Emergency Medicine Research." *Emergency Medicine Australasia*, June 2019. https://doi.org/10.1111/1742-6723.13320.

Helicopter Emergency Medical Services (HEMS) and Air Medical



To see the full text use the <u>LKS ASE Request an Article Service</u> or check with your library. For Open Access articles click through. For articles marked NHS Open Athens click through and sign in with your Open Athens account.

Adams, Peter W., Kayla A. Warren, Frank X. Guyette, Mark H. Yazer, Joshua B. Brown, Brian J. Daily, Richard S. Miller, et al. "Implementation of a Prehospital Air Medical Thawed Plasma Program." *Journal of Trauma and Acute Care Surgery*, June 2019, 1–1. https://doi.org/10.1097/TA.000000000002406.

Cover, Michael, Chelsea Tafoya, Benjamin Long, James Cranford, John Burkhardt, Robert Huang, Nik Theyyunni, Benjamin Bassin, Mark Lowell, and Ross Kessler. "Creation of a Flight Nurse Critical Care Ultrasound Program." *Air Medical Journal* 38, no. 4 (July 2019): 266–72. https://doi.org/10.1016/J.AMJ.2019.03.010.

Flaa, Tine Almenning, Anette Harris, Bjørn Bjorvatn, Hilde Gundersen, Erik Zakariassen, Ståle Pallesen, and Siri Waage. "Sleepiness among Personnel in the Norwegian Air Ambulance Service." *International Archives of Occupational and Environmental Health*, June 2019. https://doi.org/10.1007/s00420-019-01449-w. NHS OpenAthens

Hoffman, Dean V, Alejandra Figueroa, Matthew Shaw, and Paula McAllister. "The Efficacy of Chest Compressions in the Bell 407." *Air Medical Journal* 38, no. 4 (July 2019): 281–84. https://doi.org/10.1016/j.amj.2019.03.015.

Ketelaars, Rein, Jasper J.M. Holtslag, and Nico Hoogerwerf. "Abdominal Prehospital Ultrasound Impacts Treatment Decisions in a Dutch Helicopter Emergency Medical Service." *European Journal of Emergency Medicine* 26, no. 4 (August 2019): 277–82. https://doi.org/10.1097/MEJ.000000000000540.

Lenz, Timothy J, Elena A Kossyreva, and M Riccardo Colella. "Helicopter Emergency Medical Services Utilization." *Air Medical Journal* 38, no. 4 (July 2019): 261–65. https://doi.org/10.1016/j.amj.2019.03.004.

McLachlan, Brett, Craig Bilbrey, Keith Mausner, and Timothy J Lenz. "Effectiveness of Manual Ventilation in Intubated Helicopter Emergency Services-Transported Trauma Patients." *Air Medical Journal* 38, no. 4 (July 2019): 273–75. https://doi.org/10.1016/j.amj.2019.03.013.

Moors, Xavier R.J., Esther M.M. Van Lieshout, Michael H.J. Verhofstad, Robert Jan Stolker, and Dennis Den Hartog. "A Physician-Based Helicopter Emergency Medical Services Was Associated With an Additional 2.5 Lives Saved per 100 Dispatches of Severely Injured Pediatric Patients." *Air Medical Journal* 38, no. 4 (July 2019): 289–93. https://doi.org/10.1016/J.AMJ.2019.04.003.

Patterson, P. Daniel, Charity G. Moore, Francis X. Guyette, Jack M. Doman, Matthew D. Weaver, Denisse J. Sequeira, Howard A. Werman, et al. "Real-Time Fatigue Mitigation with Air-Medical Personnel: The SleepTrackTXT2

Randomized Trial." *Prehospital Emergency Care* 23, no. 4 (July 2019): 465–78. https://doi.org/10.1080/10903127.2018.1532476.

Diagnosis and Triage



To see the full text use the <u>LKS ASE Request an Article Service</u> or check with your library. For Open Access articles click through. For articles marked NHS Open Athens click through and sign in with your Open Athens account.

Amoako, Jeffrey, Sara Evans, Nicole V. Brown, Salman Khaliqdina, and Jeffrey M. Caterino. "Identifying Predictors of Undertriage in Injured Older Adults After Implementation of Statewide Geriatric Trauma Triage Criteria." *Academic Emergency Medicine* 26, no. 6 (June 2019): 648–56. https://doi.org/10.1111/acem.13695.

Atsumi, Hideki, Takatoshi Sorimachi, Yumetaro Sakakibara, Yoichi Nonaka, and Mitsunori Matsumae. "Prehospital Information and Spot Sign Are Complementary Predictors of Post-Admission Outcomes of Intracerebral Hematoma." *Journal of Clinical Neuroscience*, June 2019. https://doi.org/10.1016/j.jocn.2019.06.016.

Cassignol, Arnaud, Thibaut Markarian, Jean Cotte, Julien Marmin, Cédric Nguyen, Mickael Cardinale, Vanessa Pauly, François Kerbaul, Eric Meaudre, and Xavier Bobbia. "Evaluation and Comparison of Different Prehospital Triage Scores of Trauma Patients on In-Hospital Mortality." *Prehospital Emergency Care* 23, no. 4 (July 2019): 543–50. https://doi.org/10.1080/10903127.2018.1549627.

Chen, Qingui, Lishan Zhang, Shanhui Ge, Wanmei He, and Mian Zeng. "Prognosis Predictive Value of the Oxford Acute Severity of Illness Score for Sepsis: A Retrospective Cohort Study." *PeerJ* 7 (June 2019): e7083–e7083. https://doi.org/10.7717/peerj.7083. **Open Access**

Coster, Joanne, Alicia O'Cathain, Richard Jacques, Annabel Crum, A. Niroshan Siriwardena, and Janette Turner. "Outcomes for Patients Who Contact the Emergency Ambulance Service and Are Not Transported to the Emergency Department: A Data Linkage Study." *Prehospital Emergency Care* 23, no. 4 (July 2019): 566–77. https://doi.org/10.1080/10903127.2018.1549628.

Dresden, Scott M., Timothy F. Platts-Mills, Deepika Kandasamy, Lauren Walden, and Marian E. Betz. "Patient versus Physician Perceptions of Frailty: A Comparison of Clinical Frailty Scale Scores of Older Adults in the Emergency Department." *Academic Emergency Medicine*, July 2019, acem.13825-acem.13825. https://doi.org/10.1111/acem.13825.

Gang, Min Chul, Ki Jeong Hong, Sang Do Shin, Kyoung Jun Song, Young Sun Ro, Tae Han Kim, Jeong Ho Park, and Joo Jeong. "New Prehospital Scoring System for Traumatic Brain Injury to Predict Mortality and Severe Disability Using Motor Glasgow Coma Scale, Hypotension, and Hypoxia: A Nationwide Observational Study." *Clinical and Experimental Emergency Medicine* 6, no. 2 (June 2019): 152–59. https://doi.org/10.15441/ceem.18.027. Open Access

Infinger, Allison, Patricia Dowbiggin, Rachel Seymour, Meghan Wally, Madhav Karunakar, Anthony Caprio, Joshua Patt, and Jonathan R. Studnek. "Development of a Content Valid and Reliable Prehospital Environmental Falls Risk Assessment Tool for Older Adults." *Prehospital Emergency Care*, June 2019, 1–9. https://doi.org/10.1080/10903127.2019.1634777.

Janssen, Ties L., Elmand Hosseinzoi, Dagmar I. Vos, Eelco J. Veen, Paul G. H. Mulder, Adrianus M. van der Holst, and Lijckle van der Laan. "The Importance of Increased Awareness for Delirium in Elderly Patients with Rib Fractures after Blunt Chest Wall Trauma: A Retrospective Cohort Study on Risk Factors and Outcomes." *BMC Emergency Medicine* 19, no. 1 (December 2019): 34–34. https://doi.org/10.1186/s12873-019-0248-z. Open Aceess

Jiang, Xiaobin, Ping Jiang, and Yuanshen Mao. "Performance of Modified Early Warning Score (MEWS) and Circulation, Respiration, Abdomen, Motor, and Speech (CRAMS) Score in Trauma Severity and in-Hospital Mortality

Prediction in Multiple Trauma Patients: A Comparison Study." *PeerJ* 7 (June 2019): e7227–e7227. https://doi.org/10.7717/peerj.7227. **Open Access**

Jumaa, Mouhammad A, Alicia C Castonguay, Hisham Salahuddin, Julie Shawver, Linda Saju, Richard Burgess, Vieh Kung, et al. "Long-Term Implementation of a Prehospital Severity Scale for EMS Triage of Acute Stroke: A Real-World Experience." *Journal of NeuroInterventional Surgery*, July 2019, neurintsurg-2019-014997. https://doi.org/10.1136/neurintsurg-2019-014997. Open Access

Lane, Daniel J., Steve Lin, and Damon C. Scales. "Classification versus Prediction of Mortality Risk Using the SIRS and QSOFA Scores in Patients with Infection Transported by Paramedics." *Prehospital Emergency Care*, June 2019, 1–8. https://doi.org/10.1080/10903127.2019.1624901.

Lane, Daniel J., Hannah Wunsch, Refik Saskin, Sheldon Cheskes, Steve Lin, Laurie J. Morrison, and Damon C. Scales. "Assessing Severity of Illness in Patients Transported to Hospital by Paramedics: External Validation of 3 Prognostic Scores." *Prehospital Emergency Care*, June 2019, 1–20. https://doi.org/10.1080/10903127.2019.1632998.

Leent, Eelco A.P. van, Bas van Wageningen, Özcan Sir, Erik Hermans, and Jan Biert. "Clinical Examination of the Pelvic Ring in the Prehospital Phase." *Air Medical Journal* 38, no. 4 (July 2019): 294–97. https://doi.org/10.1016/j.amj.2019.04.004.

Loudon, Wayne, Andrew Wong, Mark Disney, Vivienne Tippett, and Vivienne Tippett. "Validated Pre-Hospital Stroke Scales to Predict Large Vessel Occlusion: A Systematic Review." *Australasian Journal of Paramedicine* 16, no. 0 (June 2019). https://doi.org/10.33151/ajp.16.705. Open Access

Martín-Rodríguez, Francisco, Raúl López-Izquierdo, Carlos del Pozo Vegas, Juan F. Delgado-Benito, Carmen del Pozo Pérez, Virginia Carbajosa Rodríguez, Agustín Mayo Iscar, José Luis Martín-Conty, Carlos Escudero Cuadrillero, and Miguel A. Castro-Villamor. "A Multicenter Observational Prospective Cohort Study of Association of the Prehospital National Early Warning Score 2 and Hospital Triage with Early Mortality." *Emergency Medicine International* 2019 (July 2019): 1–8. https://doi.org/10.1155/2019/5147808. Open Access

Mitra, Biswadev, Annie Carter, De Villiers Smit, Fatima Rahman, Shane O'Donovan, Alexander Olaussen, Jiun Kae Pui, Jeremy Abetz, Peter Hunter, and Peter A Cameron. "Proactive Review by the Emergency Department before Inter-hospital Transfer (the PREVENT Study)." *Emergency Medicine Australasia*, July 2019, 1742-6723.13338. https://doi.org/10.1111/1742-6723.13338.

Morton, Adam. "Thoracic Crush Fractures: A Sign of Unrecognised Hypoglycaemia." *Emergency Medicine Australasia*, June 2019. https://doi.org/10.1111/1742-6723.13334.

Pasquier, M., P. N. Carron, A. Rodrigues, F. Dami, V. Frochaux, C. Sartori, T. Deslarzes, and V. Rousson. "An Evaluation of the Swiss Staging Model for Hypothermia Using Hospital Cases and Case Reports from the Literature." *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine* 27, no. 1 (December 2019): 60–60. https://doi.org/10.1186/s13049-019-0636-0. Open Access

Pfeifer, Roman, Sascha Halvachizadeh, Sylvia Schick, Kai Sprengel, Kai Oliver Jensen, Michel Teuben, Ladislav Mica, Valentin Neuhaus, and Hans-Christoph Pape. "Are Pre-Hospital Trauma Deaths Preventable? A Systematic Literature Review." World Journal of Surgery, June 2019. https://doi.org/10.1007/s00268-019-05056-1.

Radowsky, Jason S., Joseph J. DuBose, Thomas M. Scalea, Catriona Miller, Douglas J. Floccare, Robert A. Sikorski, Colin F. MacKenzie, Peter Hu, Peter Rock, and Samuel M. Galvagno. "Handheld Tissue Oximetry for the Prehospital Detection of Shock and Need for Lifesaving Interventions: Technology in Search of an Indication?" *Air Medical Journal* 38, no. 4 (July 2019): 276–80. https://doi.org/10.1016/j.amj.2019.03.014.

Rogers, Alexander J, Nathan Kuppermann, Jennifer Anders, Genie Roosevelt, John D Hoyle, Richard M Ruddy, Jonathon E Bennett, et al. "Practice Variation in the Evaluation and Disposition of Febrile Infants ≤60 Days of

Age." *The Journal of Emergency Medicine* 56, no. 6 (June 2019): 583–91. https://doi.org/10.1016/j.jemermed.2019.03.003.

Tamminen, Joonas, Antti Kallonen, Sanna Hoppu, and Jari Kalliomäki. "Comparison of Prehospital National Early Warning Score and Machine Learning Methods for Predicting Mortality." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.045.

Patient Profile



To see the full text use the <u>LKS ASE Request an Article Service</u> or check with your library. For Open Access articles click through. For articles marked NHS Open Athens click through and sign in with your Open Athens account.

Brown, Elizabeth, Hideo Tohira, Paul Bailey, Daniel Fatovich, Judith Finn, and Judith Finn. "Major Trauma Patients Are Not Who You Might Think They Are: A Linked Data Study." *Australasian Journal of Paramedicine* 16, no. 0 (June 2019). https://doi.org/10.33151/ajp.16.704.

Depinet, Holly E., Michelle Eckerle, Olga Semenova, Jareen Meinzen-Derr, and Lynn Babcock. "Characterization of Children with Septic Shock Cared for by Emergency Medical Services." *Prehospital Emergency Care* 23, no. 4 (July 2019): 491–500. https://doi.org/10.1080/10903127.2018.1539147.

Garwe, Tabitha, Kenneth Stewart, Craig D. Newgard, Julie Stoner, John C. Sacra, Patrick Cody, Babawale Oluborode, and Roxie M. Albrecht. "Survival Benefit of Treatment at or Transfer to a Tertiary Trauma Center among Injured Older Adults." *Prehospital Emergency Care*, June 2019, 1–18. https://doi.org/10.1080/10903127.2019.1632997.

Hinson, Jeremiah S, Diego A Martinez, Stephanie Cabral, Kevin George, Madeleine Whalen, Bhakti Hansoti, and Scott Levin. "Triage Performance in Emergency Medicine: A Systematic Review." *Annals of Emergency Medicine* 74, no. 1 (July 2019): 140–52. https://doi.org/10.1016/j.annemergmed.2018.09.022.

On-Scene Interventions



To see the full text use the <u>LKS ASE Request an Article Service</u> or check with your library. For Open Access articles click through. For articles marked NHS Open Athens click through and sign in with your Open Athens account.

Alhelaly, Mohamed Magdy, Ahmed Magdy Soliman, Anas Khaled, Hamed Ellotf, Mahmoud Mohamed Attia, and Ahmed Elmaraezy. "Efficacy of Tranexamic Acid in Traumatic Brain Injury: Updated Systematic Review and Meta-Analysis." *Trauma* 21, no. 3 (July 2019): 167–75. https://doi.org/10.1177/1460408619842736.

Alrawashdeh, Ahmad, Ziad Nehme, Brett Williams, and Dion Stub. "Review Article: Impact of 12-lead Electrocardiography System of Care on Emergency Medical Service Delays in ST-elevation Myocardial Infarction: A Systematic Review and Meta-analysis." *Emergency Medicine Australasia*, June 2019, 1742-6723.13321. https://doi.org/10.1111/1742-6723.13321.

Berg, Sophie A. van den, Diederik W. J. Dippel, Jeannette Hofmeijer, Puck S. S. Fransen, Klaartje Caminada, Arjen Siegers, Nyika D. Kruyt, et al. "Multicentre Randomised Trial of Acute Stroke Treatment in the Ambulance with a Nitroglycerin Patch (MR ASAP): Study Protocol for a Randomised Controlled Trial." *Trials* 20, no. 1 (December 2019): 383–383. https://doi.org/10.1186/s13063-019-3419-z. Open Access

Bergmeijer, Thomas, Mathijs van Oevelen, Paul Janssen, Thea Godschalk, Robert Lichtveld, Johannes Kelder, Michiel Voskuil, Arend Mosterd, Gilles Montalescot, and Jurriën ten Berg. "Safety of Ticagrelor Compared to Clopidogrel after Prehospital Initiation of Treatment." *TH Open* 02, no. 04 (October 2018): e357–68. https://doi.org/10.1055/s-0038-1673389. Open Access

Boutonnet, Mathieu, Gabriella Osorio Cajes, Pierre Pasquier, and Sylvain Ausset. "Tranexamic Acid in Traumatic Hemorrhage: Evidence Argues for a Prehospital Administration." *The American Journal of Emergency Medicine*, May 2019. https://doi.org/10.1016/j.ajem.2019.05.062.

Brant, Emily B., Jason Kennedy, Christian Martin-Gill, Vanessa Jackson, Octavia M. Peck Palmer, Clifton W. Callaway, Jeremy M. Kahn, Donald M. Yealy, Derek C. Angus, and Christopher W. Seymour. "Association Between Intravenous Fluid Bolus and Biomarker Trajectory During Prehospital Care." *Prehospital Emergency Care*, July 2019, 1–8. https://doi.org/10.1080/10903127.2019.1629134.

Brown, Elizabeth, Hideo Tohira, Paul Bailey, Daniel Fatovich, Gavin Pereira, and Judith Finn. "Longer Prehospital Time Was Not Associated with Mortality in Major Trauma: A Retrospective Cohort Study." *Prehospital Emergency Care* 23, no. 4 (July 2019): 527–37. https://doi.org/10.1080/10903127.2018.1551451.

NIHR Signal. "Centralising Stroke Services Can Save Lives," May 2019. https://doi.org/10.3310/signal-000770. Open Access

Clemency, Brian M., William Eggleston, and Heather A. Lindstrom. "Pharmacokinetics and Pharmacodynamics of Naloxone." *Academic Emergency Medicine*, May 2019, acem.13768-acem.13768. https://doi.org/10.1111/acem.13768.

Clodi, Christian, Christoph Schriefl, Michael Poppe, Alexandra Maria Warenits, Alexander Nuernberger, Mathias Kießlinger, Andreas Zajicek, Gerhard Klune, Michael Holzer, and Christoph Weiser. "The Transport in Medical Emergency Simulation Study (TIME-Sim)." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.104.

Dicker, Bridget, Verity F Todd, Bronwyn Tunnage, Andy Swain, Tony Smith, and Graham Howie. "Direct Transport to PCI-Capable Hospitals after out-of-Hospital Cardiac Arrest in New Zealand: Inequities and Outcomes." *Resuscitation* 0, no. 0 (July 2019). https://doi.org/10.1016/j.resuscitation.2019.06.283.

Douma, Matthew J., Christopher Picard, Domhnall O'Dochartaigh, and Peter G. Brindley. "Proximal External Aortic Compression for Life-Threatening Abdominal-Pelvic and Junctional Hemorrhage: An Ultrasonographic Study in Adult Volunteers." *Prehospital Emergency Care* 23, no. 4 (July 2019): 538–42. https://doi.org/10.1080/10903127.2018.1532477.

Farkas, Andrew, Michael J Lynch, Rachael Westover, Joseph Giles, Nalyn Siripong, Akanksha Nalatwad, Anthony F Pizon, and Christian Martin-Gill. "Pulmonary Complications of Opioid Overdose Treated With Naloxone." *Annals of Emergency Medicine* 0, no. 0 (June 2019). https://doi.org/10.1016/j.annemergmed.2019.04.006.

Fenger-Eriksen, Christian, Dietmar Fries, Jean-Stephane David, Pierre Bouzat, Marcus Daniel Lance, Oliver Grottke, Donat R. Spahn, Herbert Schoechl, and Marc Maegele. "Pre-Hospital Plasma Transfusion: A Valuable Coagulation Support or an Expensive Fluid Therapy?" *Critical Care* 23, no. 1 (December 2019): 238–238. https://doi.org/10.1186/s13054-019-2524-4. Open Access

Fishe, Jennifer N., Kevin J. Psoter, and Jennifer F. Anders. "Emergency Medical Services Bypass of the Closest Facility for Pediatric Patients." *Prehospital Emergency Care* 23, no. 4 (July 2019): 485–90. https://doi.org/10.1080/10903127.2018.1557304.

Fok, Patrick T., David Teubner, Jeremy Purdell-Lewis, and Andrew Pearce. "Predictors of Prehospital On-Scene Time in an Australian Emergency Retrieval Service." *Prehospital and Disaster Medicine* 34, no. 03 (June 2019): 317–21. https://doi.org/10.1017/S1049023X19004394.

Gäßler, Michael, Matthias Ruppert, Rolf Lefering, Bertil Bouillon, and Arasch Wafaisade. "Pre-Hospital Emergent Intubation in Trauma Patients: The Influence of Etomidate on Mortality, Morbidity and Healthcare Resource Utilization." *Scandinavian Journal of Trauma, Resuscitation and Emergency Medicine* 27, no. 1 (December 2019): 61–61. https://doi.org/10.1186/s13049-019-0637-z. Open Access

Goebel, Mat, Christopher Tainter, Christopher Kahn, James V. Dunford, John Serra, Jodie Pierce, and J. Joelle Donofrio. "An Urban 9-1-1 System's Experience with Left Ventricular Assist Device Patients." *Prehospital Emergency Care* 23, no. 4 (July 2019): 560–65. https://doi.org/10.1080/10903127.2018.1532475.

Heaton, James D, Bikash Bhandari, Kiran A Faryar, and Martin R Huecker. "Retrospective Review of Need for Delayed Naloxone or Oxygen in Emergency Department Patients Receiving Naloxone for Heroin Reversal." *The Journal of Emergency Medicine* 56, no. 6 (June 2019): 642–51. https://doi.org/10.1016/j.jemermed.2019.02.015.

Henry, Reynold, Kazuhide Matsushima, Rachel N. Henry, Victor Wong, Zachary Warriner, Aaron Strumwasser, Christopher P. Foran, Kenji Inaba, Todd E. Rasmussen, and Demetrios Demetriades. "Who Would Have Benefitted from the Prehospital Use of Resuscitative Endovascular Balloon Occlusion of the Aorta (REBOA)? An Autopsy Study." *Journal of the American College of Surgeons*, June 2019. https://doi.org/10.1016/j.jamcollsurg.2019.05.025.

Jones, Jenna K., Bridie A. Evans, Greg Fegan, Simon Ford, Katy Guy, Sian Jones, Leigh Keen, et al. "Rapid Analgesia for Prehospital Hip Disruption (RAPID): Findings from a Randomised Feasibility Study." *Pilot and Feasibility Studies* 5, no. 1 (December 2019): 77–77. https://doi.org/10.1186/s40814-019-0454-1. Open Access

Le, Daphne D, Ashley S Abraham, and David R Vinson. "Changing U.S. Guidelines on Lidocaine for Stable Monomorphic Ventricular Tachycardia: Have Emergency Medical Services Kept Pace?" *The American Journal of Emergency Medicine* 0, no. 0 (June 2019). https://doi.org/10.1016/j.ajem.2019.06.033.

Long, Brit, Alex Koyfman, and Michael Gottlieb. "Factors Predicting Difficult Endotracheal Intubation." *Academic Emergency Medicine*, June 2019. https://doi.org/10.1111/acem.13824.

Marsden, Max E R, Andrea Rossetto, Charles A B Duffield, Thomas G D Woolley, William P Buxton, Sarah Steynberg, Rahul Bagga, and Nigel R M Tai. "Prehospital Tranexamic Acid Shortens the Interval to Administration by Half in Major Trauma Networks: A Service Evaluation." *Emergency Medicine Journal*, June 2019, emermed-2018-208118. https://doi.org/10.1136/emermed-2018-208118. NHS OpenAthens

Mikkelsen, Vibe Sommer, Ulrik Stenz Justesen, Mads Christian Tofte Gregers, Jens Schierbeck, and Søren Mikkelsen. "Physician Administered Antibiotics in Severe Infections in a Prehospital Setting." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.254.

Nishijima, Daniel K, Nathan Kuppermann, Ian Roberts, John M VanBuren, and Daniel J Tancredi. "The Effect of Tranexamic Acid on Functional Outcomes: An Exploratory Analysis of the CRASH-2 Randomized Controlled Trial." *Annals of Emergency Medicine* 74, no. 1 (July 2019): 79–87. https://doi.org/10.1016/j.annemergmed.2018.11.018.

Phaily, Ary, and Mansoor Khan. "Is Our Current Method of Cervical Spine Control Doing More Harm than Good?" *Trauma* 21, no. 3 (July 2019): 176–83. https://doi.org/10.1177/1460408618777773.

Sagisaka, Ryo, Hideharu Tanaka, Koshi Nakagawa, and Tsutomu Komine. "Does Early Adrenaline Administration Really Affect Long-Term Outcome on out-of-Hospital Cardiac Arrest in Japan?: A Time-Dependent Propensity Score Matching." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.026.

Schauer, Steven G, Jason F Naylor, Annie L Chow, Joseph Maddry, Cord W Cunningham, Megan B Blackburn, Corinne D Nawn, and Michael D April. "Survival of Casualties Undergoing Prehospital Supraglottic Airway Placement Versus Cricothyrotomy." *Journal of Special Operations Medicine : A Peer Reviewed Journal for SOF Medical Professionals* 19, no. 2 (2019): 91–94.

Sloan, Brian K, Haroon Mohammad, Nader S Abutaleb, and Mohamed N Seleem. "Comparison between a Novel Tap Water Wound Irrigation Device with Sterile Saline Device in an Open Traumatic Wound Animal Model." *Trauma*, June 2019, 146040861985739–146040861985739. https://doi.org/10.1177/1460408619857399.

Spinella, Philip C., Jennifer Gurney, and Mark H. Yazer. "Low Titer Group O Whole Blood for Prehospital Hemorrhagic Shock: It Is an Offer We Cannot Refuse." *Transfusion* 59, no. 7 (July 2019): 2177–79. https://doi.org/10.1111/trf.15408.

Turner, Damian, Suzanne Winter, Kenneth Winkel, Christopher MacIsaac, Andrew Padula, and George Braitberg. "Review Article: Let Us Talk about Snakebite Management: A Discussion on Many Levels." *Emergency Medicine Australasia*, June 2019. https://doi.org/10.1111/1742-6723.13327.

Varjoranta, Tuure, Lasse Raatiniemi, Kari Majamaa, Matti Martikainen, and Janne H Liisanantti. "Prehospital and Hospital Delays for Stroke Patients Treated with Thrombolysis: A Retrospective Study from Mixed Rural-Urban Area in Northern Finland." *Australasian Emergency Care* 22, no. 2 (June 2019): 76–80. https://doi.org/10.1016/j.auec.2019.01.008.

Williams, Owen D, and Graham Pluck. "The Use of Methoxyflurane (Penthrox®) for Procedural Analgesia in the Emergency Department and Pre-Hospital Environment." *Trauma*, June 2019, 146040861985003–146040861985003. https://doi.org/10.1177/1460408619850038.

Airway Management, Resuscitation & CPR



To see the full text use the <u>LKS ASE Request an Article Service</u> or check with your library. For Open Access articles click through. For articles marked NHS Open Athens click through and sign in with your Open Athens account.

Alqudah, Zainab, Ziad Nehme, Brett Williams, Alaa Oteir, Stephen Bernard, and Karen Smith. "A Descriptive Analysis of the Epidemiology and Management of Paediatric Traumatic Out-of-Hospital Cardiac Arrest." *Resuscitation* 140 (July 2019): 127–34. https://doi.org/10.1016/j.resuscitation.2019.05.020.

Baert, Valentine, Tahar Chouihed, Joséphine Escutnaire, Christian Vilhelm, Michaël Genin, Carlos El khoury, Hervé Hubert, and Gr RéAC. "Epinephrine and Non-Shockable Rhythm: Is There a Difference between Pulseless Electrical Activity and Asystole?" *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.073.

Ashworth, Russell. "Increasing APLS, PLS and Comparative Course Compliance, 'Does It Improve Outcomes?" *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.217.

Baert, Valentine, Joséphine Escutnaire, Christian Vilhelm, Manon Santerne, Karim Tazarourte, Carlos El khoury, Hervé Hubert, and Gr Réac. "Advanced Life Support: Evolution of Resuscitation Practices in France between 2012 and 2018." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.248.

Barnard, Ed B G, Daniel D Sandbach, Tracy L Nicholls, Alastair W Wilson, and Ari Ercole. "Prehospital Determinants of Successful Resuscitation after Traumatic and Non-Traumatic out-of-Hospital Cardiac Arrest." *Emergency Medicine Journal : EMJ* 36, no. 6 (June 2019): 333–39. https://doi.org/10.1136/emermed-2018-208165. NHS OpenAthens

Bichmann, Anna, Robert Spaight, and Krystyna Isakova. "Novel Gradient Boosting Method to Identify Feature Importance for ROSC after Cardiac Arrest (RACA)." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.202.

Brøchner, Anne Craveiro, Peter Lindholm, Margrethe Jermiin Jensen, Jacob Eifer Møller, Finn Lund Henriksen, Palle Toft, and Søren Mikkelsen. "Survival Following Treatment of Out-of-Hospital Cardiac Arrest in a Physician-Manned Prehospital Emergency System with Immediate Access to a Cardiac Catheterization Laboratory." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.183.

Chandler, Phillip, and Matthew Ibrahim. "Experiences and Opinions of Video Aided Review of Resuscitation Emergencies (VARRE)." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.208.

Christensen, D M, S Rajan, K Kragholm, K B Søndergaard, O M Hansen, T A Gerds, C Torp-Pedersen, G H Gislason, Freddy K Lippert, and C A Barcella. "Bystander Cardiopulmonary Resuscitation and Survival in Patients with Out-of-Hospital Cardiac Arrest of Non-Cardiac Origin." *Resuscitation* 140 (July 2019): 98–105. https://doi.org/10.1016/j.resuscitation.2019.05.014.

Clark, Lyra, Ben Senderling, Jeffrey Gould, Chris Kaufman, and Nick Stergiou. "Kinematic Differences between Professional and Lay Rescuers with and without the Use of Real-Time Cpr Feedback." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.033.

Couper, Keith, Tom Quinn, Katie Booth, Anne Devrell, Ranjit Lall, Catherine Lawrence, Barry Orriss, Scott Regan, Joyce Yeung, and Gavin D. Perkins. "Interruptions in CPR during Deployment of a Mechanical Chest Compression Device: Results from a Randomised Controlled Trial (COMPRESS-RCT)." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.088.

———. "Mechanical Chest Compression Device Use in Patients in a Non-Shockable Rhythm at in-Hospital Cardiac Arrest: A Multi-Centre Feasibility Randomised Controlled Trial (COMPRESS-RCT)." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.089.

Cournoyer, Alexis, Sylvie Cossette, Brian J Potter, Raoul Daoust, Luc de Montigny, Luc Londei-Leduc, Yoan Lamarche, et al. "Prognostic Impact of the Conversion to a Shockable Rhythm from a Non-Shockable Rhythm for Patients Suffering from out-of-Hospital Cardiac Arrest." *Resuscitation* 140 (July 2019): 43–49. https://doi.org/10.1016/j.resuscitation.2019.04.044.

Escutnaire, Joséphine, Sophie Nave, Valentine Baert, Christian Vilhelm, Karim Tazarourte, François Javaudin, Eric Wiel, Hervé Hubert, and G.R RéAC. "Intraosseous Access in Out-of-Hospital Cardiac Arrest: No Difference in Terms of Mid-Term Survival and Neurological Outcome in a National Registry." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.090.

Fukuda, Tatsuma, Naoko Ohashi-Fukuda, Kei Hayashida, and Ichiro Kukita. "Association of Bystander Cardiopulmonary Resuscitation and Neurological Outcome after Out-of-Hospital Cardiac Arrest Due to Drowning in Japan, 2013-2016." *Resuscitation* 141 (June 2019): 111–20. https://doi.org/10.1016/j.resuscitation.2019.06.005.

Fusada, Takuya, Atsushi Shiraishi, and Kanae Ochiai. "Blood Gas Analyses to Predict Subsequent Recovery of Spontaneous Circulation in Out-of-Hospital Cardiac Arrest Patients Fulfilling Prehospital Termination of Resuscitation Criteria: A Diagnostic Accuracy Study." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.186.

Glober, Nancy K, Christopher R Tainter, Tiffany M Abramson, Katherine Staats, Gregory Gilbert, and David Kim. "A Simple Decision Rule Predicts Futile Resuscitation of Out-of-Hospital Cardiac Arrest." *Resuscitation* 0, no. 0 (June 2019). https://doi.org/10.1016/j.resuscitation.2019.06.011.

González-Otero, Digna M., Sofía Ruiz de Gauna, Jesus Ruiz, José Julio Gutiérrez, Iker Arana, Mohamud R. Daya, and James K. Russell. "Evolution of Chest Compression Waveform Metrics over Time during Manual Cardiopulmonary Resuscitation." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.076.

Gould, Jeffrey, Lisa Hershelman, Robyn McDannold, Margaret Mullins, Pete Walka, Isabelle Deslauriers, David Bull, and Bentley Bobrow. "The Effect of Chest Compression Quality on SpO2 Measured at the Finger and the Ear." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.211.

Graaf, Corina de, Stefanie Beesems, Ronald Stickney, Dan Piraino, Fred Chapman, and Rudolph Koster. "Analysis of the Heart Rhythm during Chest Compressions: Performance in out-of-Hospital Cardiac Arrest Patients." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.032.

Graaf, Corina de, Iris Oving, Fredrik Folke, Lena Karlsson, Jo Kramer-Johansen, Theresa Olasveengen, Martin Jonsson, et al. "The Decline in Shockable Initial Rhythm in out of Hospital Cardiac Arrest Has Levelled of: Report from the COSTA Group." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.054.

Grunau, Brian, Takahisa Kawano, Frank X Scheuermeyer, Ian Drennan, Christopher B Fordyce, Sean van Diepen, Joshua Reynolds, Steve Lin, and Jim Christenson. "The Association of the Average Epinephrine Dosing Interval and Survival With Favorable Neurologic Status at Hospital Discharge in Out-of-Hospital Cardiac Arrest." *Annals of Emergency Medicine* 0, no. 0 (June 2019). https://doi.org/10.1016/j.annemergmed.2019.04.031.

Hamilton, Richard J., Mark Ramzy, Jamie Teufel, Glenn Laub, and J. Yasha Kresh. "Dual Defibrillation Is Highly Variable: An Analysis of Pulse Interval Delivered in Dual Defibrillation." *Prehospital Emergency Care*, June 2019, 1–6. https://doi.org/10.1080/10903127.2019.1621411.

Holgersen, Mathias G., Theo Walther Jensen, Stig N. Blomberg, Freddy K. Lippert, and Helle C. Christensen. "Etiology of Pediatric out of Hospital Cardiac Arrest, a Three-Year Danish Regional Analysis." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.181.

Inaba, Hideo, Kohei Takada, Hisanori Kurosaki, Akira Yamashita, and Yukihiro Wato. "Cut-off Values of Time Interval between Witness and Bystander Cardiopulmonary Resuscitation for Neurologically Favourable Survival after Bystander-Witnessed out-of-Hospital Cardiac Arrest." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.053.

Jarvis, Jeffrey L, David Wampler, and Henry E Wang. "Association of Patient Age with First Pass Success in Out-of-Hospital Advanced Airway Management." *Resuscitation* 141 (June 2019): 136–43. https://doi.org/10.1016/j.resuscitation.2019.06.002.

Jensen, Theo Walther, Mathias G. Holgersen, Stig N.F. Blomberg, Freddy K. Lippert, and Helle C. Christensen. "Foreign Body Airway Obstruction, Incidence, Survival and First Aid Treatment by Laypersons." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.182.

Kilner, Thomas, Benjamin L Stanton, and Stefan M Mazur. "Prehospital Extracorporeal Cardiopulmonary Resuscitation for Out-of-hospital Cardiac Arrest: A Retrospective Eligibility Study." *Emergency Medicine Australasia*, July 2019, 1742-6723.13317. https://doi.org/10.1111/1742-6723.13317.

Kim, Joochan, and Donghun Lee. "Relationship between High-Density Lipoprotein and Prehospital Return of Spontaneous Circulation after out-of-Hospital Cardiac Arrest." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.231.

Kim, Minwoo, JeongHo Park, SangDo Shin, Kyungjun Song, KiJeong Hong, TaeHan Kim, KiHong Kim, WonPyo Hong, and SunYoung Lee. "Gender Difference of Bystander in Successful Dispatcher Assisted Cardiopulmonary Resuscitation in Out-of-Hospital Cardiac Arrest." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.251.

Kiyohara, Kosuke, Chika Nishiyama, Tetsuhisa Kitamura, Tasuku Matsuyama, Junya Sado, Tomonari Shimamoto, Daisuke Kobayashi, et al. "The Association between Public Access Defibrillation and Outcome in Witnessed Out-of-Hospital Cardiac Arrest with Shockable Rhythm." *Resuscitation* 140 (July 2019): 93–97. https://doi.org/10.1016/j.resuscitation.2019.05.017.

Ko, Ying-Chih, Jen-Tang Sun, Wen-Chu Chiang, Yu-Chun Chien, Yao-Cheng Wang, Ming-Ju Hsieh, Jia-shan Chen, Chih-Wei Yang, Hui-Chih Wang, and Matthew Huei-Ming Ma. "The Influence of Advanced Life Support Response Time on Patient Outcomes after Out-of-Hospital Cardiac Arrest in Taipei." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.244.

Lee, Juncheol, Yeongtak Song, Jaehoon Oh, Youngjoon Chee, Chiwon Ahn, Hyungoo Shin, Hyunggoo Kang, and Tae Ho Lim. "Smartwatch Feedback Device for High-Quality Chest Compressions by a Single Rescuer during Infant

Cardiac Arrest." European Journal of Emergency Medicine 26, no. 4 (August 2019): 266–71. https://doi.org/10.1097/MEJ.000000000000537. Open Access

Leturiondo, Mikel, Sofía Ruiz de Gauna, Jose Julio Gutiérrez, Jesus Ruiz, Carlos Corcuera, Juan Francisco Ustusagasti, James K. Russell, and Mohamud R. Daya. "Chest Compression Artefact Compromises Real-Time Feedback Capnometry: Quantification of Differences in End-Tidal Measurements by Two Capnometers." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.080.

Leutscher, Stephan, Tom van Beijsterveldt, Igor Paulussen, and Lieke Muntinga. "Chest Compressions May Induce VF from a Potentially Perfusing Rhythm." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.075.

Liao, Edward Che-Wei, Kah-Meng Chong, Hui-Chih Wang, Frank Jun-Jie Chang, Chun-Hua Hu, Ming-Zong Tsai, Yao-Chang Wang, et al. "Continuous Instruction of DATCPR Chest Compressions until Handover by Paramedics Improves Neurological Outcome for Ventricular Fibrillation of Out-of-Hospital Cardiac Arrest." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.047.

Ling, Dean-An, Chien-Hua Huang, Wei-Tien Chang, Wei-Ting Chen, Wen-Jone Chen, and Min-Shan Tsai. "The Accumulated Experience of Targeted Temperature Management Is Associated with Improved Outcomes in Cardiac Arrest Survivors without Temperature Management." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.222.

Liu, Rachel B., Sandy Bogucki, Evie G. Marcolini, Connie Y. Yu, Charles R. Wira, Sharmin Kalam, James Daley, Chris L. Moore, and David C. Cone. "Guiding Cardiopulmonary Resuscitation with Focused Echocardiography: A Report of Five Cases." *Prehospital Emergency Care*, July 2019, 1–6. https://doi.org/10.1080/10903127.2019.1626955.

Lu, Tsung-Chien, Yao-Ting Chang, Te-Wei Ho, Yi Chen, Yi-Ting Lee, Yu-Siang Wang, Yen-Pin Chen, et al. "Using a Smartwatch with Real-Time Feedback Improves the Delivery of High-Quality Cardiopulmonary Resuscitation by Healthcare Professionals." *Resuscitation* 140 (July 2019): 16—22. https://doi.org/10.1016/j.resuscitation.2019.04.050.

Lucas, Nieves de, Patrick Van de Voorde, Antonio Rodríguez-Nuñez, Jesús López-Herce, Ian Maconochie, Aurélie Labarre, Sophie Breinig, et al. "Shockable Rhythms Are Not Infrequent in Children and Their Prognosis Is Better than Other Rhythms." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.066.

Matsui, Satoshi, Tetsuhisa Kitamura, Junya Sado, Kosuke Kiyohara, Daisuke Kobayashi, Takeyuki Kiguchi, Chika Nishiyama, et al. "Location of Arrest and Survival from Out-of-Hospital Cardiac Arrest among Children in the Public-Access Defibrillation Era in Japan." *Resuscitation* 140 (July 2019): 150–58. https://doi.org/10.1016/J.RESUSCITATION.2019.04.045.

McCartney, Ben, Olibhéar McAlister, Hannah Torney, Laura Davis, Rachael Gregson, Paul Crawford, Eddie Clutton, Rebecca Funston, and Adam Harvey. "Impedance Cardiogram Directed Chest Compression Feedback in a Porcine Model of Paediatric Sudden Cardiac Arrest Is Associated with High Levels of End-Tidal Carbon Dioxide, Shock Success and ROSC." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.220.

Métrailler-Mermoud, Jessika, Olivier Hugli, Pierre-Nicolas Carron, Alexandre Kottmann, Vincent Frochaux, Grégoire Zen-Ruffinen, and Mathieu Pasquier. "Avalanche Victims in Cardiac Arrest Are Unlikely to Survive despite Adherence to Medical Guidelines." *Resuscitation* 141 (June 2019): 35–43. https://doi.org/10.1016/j.resuscitation.2019.05.037.

Miller, Kelsey A, and Joshua Nagler. "Advances in Emergent Airway Management in Pediatrics." *Emergency Medicine Clinics of North America* 37, no. 3 (August 2019): 473–91. https://doi.org/10.1016/j.emc.2019.03.006.

Milling, Louise, Søren Mikkelsen, and Birgitte Schmidt Astrup. "Mechanical Chest Compression – Cure or Culprit?" *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.081.

Moore, Jarrett, Mark Sanderson, and Riyad B Abu-Laban. "Epinephrine in Cardiac Arrest: The PARAMEDIC2 Trial." *CJEM*, June 2019, 1–2. https://doi.org/10.1017/cem.2019.354.

Nakagawa, Koshi, Ryo Sagisaka, Hiroshi Takyu, and Hideharu Tanak. "Early Endotracheal Intubation Improves Neurological Outcomes on Witnessed OHCA." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.082.

Nedelea, Paul, Tudor Ovidiu Popa, Mihaela Corlade, Gabriela Grigorasi, Alexandru Lazar, and Diana Cimpoesu. "Seasonal Variation in Cardiac Arrest, Is There Any Connection with Incidence and Surviving Rate?" *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.197.

Nehme, Ziad, Resmi Nair, Emily Andrew, Stephen Bernard, and Karen Smith. "Impact of Resuscitation Duration on the Long-Term Functional Outcome of out-of-Hospital Cardiac Arrest Patients." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.072.

Nehme, Ziad, and Karen Smith. "More Evidence That Out-of-Hospital Cardiac Arrest Is Preventable." *Resuscitation* 0, no. 0 (June 2019). https://doi.org/10.1016/j.resuscitation.2019.05.039.

Neumann, Tobias, Simon-Richard Finke, Ben Höpfner, Sebastian Lemke, Maja Henninger, Pia Rademann, Daniel C. Schroeder, and Thorsten Annecke. "Global Oxygenation and Heart Lung Interaction Using 'Corpuls Cpr' in a Real-Life Porcine Model of Cardiopulmonary Resuscitation (CPR)." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.074.

Nieuwenhuizen, Benjamin P van, Iris Oving, Anton E Kunst, Joost Daams, Marieke T Blom, Hanno L Tan, and Irene G M van Valkengoed. "Socio-Economic Differences in Incidence, Bystander Cardiopulmonary Resuscitation and Survival from out-of-Hospital Cardiac Arrest: A Systematic Review." *Resuscitation* 141 (June 2019): 44–62. https://doi.org/10.1016/j.resuscitation.2019.05.018.

Paglialonga, Marco, Francesco Colucci, Potito D'Agrosa, Girolamo Spagnoletti, and Vincenzo Colapietro. "Features Evaluation Questionnaire (FEQ): Validation of a New Tool for Testing Usability of BLS Apps." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.209.

Perkins, Gavin D, Claire Kenna, Chen Ji, Charles D Deakin, Jerry P Nolan, Tom Quinn, Rachael Fothergill, et al. "The Effects of Adrenaline in out of Hospital Cardiac Arrest with Shockable and Non-Shockable Rhythms: Findings from the PACA and PARAMEDIC-2 Randomised Controlled Trials." *Resuscitation* 140 (July 2019): 55–63. https://doi.org/10.1016/j.resuscitation.2019.05.007. Open Access

Roh, Young-II, Woo Jin Jung, Sun Ju Kim, Jin Hyuk Kim, Sung Oh Hwang, and Kyoung-Chul Cha. "The 1-Minute Interval of Defibrillation Can Promote More Successful Defibrillation than 2-Minute Interval." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.025.

Rojero, Cynthia, Allen Kuo, and Man Kam Chin. "Analysis of Infant Rescue Breathing Performance Errors during Training That Lead to Poor Quality CPR." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.170.

Romijn, Tessa, Susanne IJmkers, Marc Schluep, Sanne Hoeks, Rik Endeman, and Robbert-Jan Stolker. "Patient Awareness of CPR-Directives: A Flash Mob Investigation of Do Not Resuscitate Orders in Dutch Hospitals." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.068.

Salaberria, Ruth, Andima Larrea, Leyre Amas, Daniel Alonso, Naiara Etxeberria, Itziar Egibar, Edurne Mugica, et al. "Cerebral Oximetry vs Capnography to Monitor Chest Compressions and Return of Spontaneous Circulation in Out-of-Hospital Cardiac Arrest." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.213.

Sassen, Martin Christian, Dana Maresa Spies, Jonathan Kiekenap, Susanne Betz, and Clemens Kill. "Defibrillation Success in Out-of-Hospital Cardiac Arrest: Point in Time of Ventricular Fibrillation Recurrence after Successful Shock

during Early Phase of Cardiopulmonary Resuscitation." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.079.

Savastano, Simone, Enrico Baldi, Rosa Fracchia, Elisa Cacciatore, Sara Compagnoni, Alessandra Palo, Enrico Contri, Giorgio Iotti, and Luigi Oltrona Visconti. "Post-ROSC Peripheral Perfusion Index and 30 Days Survival after out-of-Hospital Cardiac Arrest. Our Four Years Experience." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.067.

Scapol, Sara, Serena Rakar, Giancarlo Vitrella, Enrico Fabris, Andrea Perkan, Davide Cageggi, Marco Zambon, et al. "Coronary Angiography after Rosc: Is ECG without Stemi Still an Open Question?" *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.071.

———. "Trieste – CARe: Impact of Adrenaline on out of Hospital Cardiac Arrest Outcome." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.078.

Schmicker, Robert H., Graham Nichol, Clifton W. Callaway, Sheldon Cheskes, George Sopko, and Henry E. Wang. "Study Monitoring in Emergency Care Trials: Lessons from the Resuscitation Outcomes Consortium Continuous Chest Compressions Trial." *Academic Emergency Medicine*, May 2019, acem.13810-acem.13810. https://doi.org/10.1111/acem.13810.

Smith, Christopher M. "Lay First-Responders Alerted to out-of-Hospital Cardiac Arrest by Smartphone App - Not so Novel Any Longer, and It's Time to Do More." *Resuscitation* 0, no. 0 (June 2019). https://doi.org/10.1016/j.resuscitation.2019.06.007.

Stoecklein, H. Hill, Christopher Kelly, Amy H. Kaji, Andrea Fantegrossi, Margaret Carlson, Megan L. Fix, Troy Madsen, Ron M. Walls, and Calvin A. Brown. "Multicenter Comparison of Non-supine versus Supine Positioning During Intubation in the Emergency Department: A National Emergency Airway Registry (NEAR) Study." *Academic Emergency Medicine*, May 2019, acem.13805-acem.13805. https://doi.org/10.1111/acem.13805.

Strapazzon, Giacomo, Alessandro Forti, Simon Rauch, and Hermann Brugger. "The Integration of Prehospital Standard Operating Procedures and In-Hospital HOPE Score for Management of Hypothermic Patients in Cardiac Arrest." *Resuscitation* 0, no. 0 (June 2019). https://doi.org/10.1016/j.resuscitation.2019.05.041.

Stroop, Ralf, Mario Hensel, Bernd Strickmann, and Thoralf Kerner. "Mobile-Phone Based Alerting of CPR-Trained Volunteers Simultaneously with Ambulance Can Reduce Resuscitation-Free Interval and Improve Outcome after out-of-Hospital Cardiac Arrest - a Prospective Observational Study." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.018.

Tanaka, Hideharu, Ryo Sagisaka, Koushi Nakagawa, and Hioshi Takyu. "Ten-Year Stepwise Improving of the Favorable Neurological Outcomes of OHCA Patients in Japan." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.230.

Ujevic, Radmila Majhen, Ivan Brdar, Zoran Vidovic, and Leo Luetic. "Did Education Take Part in Improving out of Hospital Cardiac Arrest Outcomes?" *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.185.

Venema, Alyssa, Kim van Geloof, Michelle Poulissen, Maurice Steins, Rick Baris, and Erik Dortangs. "Failure to Charge the Defibrillator Prior to a Rhythm Check: Disappointingly Common, Lengthy Delay and Potentially Dangerous." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.178.

Vopelius-Feldt, Johannes von. "Resuscitation Time Bias and the Apparent Benefit of Early Interventions in Out-of-Hospital Cardiac Arrest: A Review of the Literature." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.091.

Yang, Jae Kwang, Yu Jin Kim, Sang Do Shin, Joo Jeong, Young Sun Ro, Wonpyo Hong, and Sae Won Choi. "Low Serum Cholesterol Level as a Risk Factor for Out-of-Hospital Cardiac Arrests: A Case-Control Study." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.055.

AEDs

Hajari, Hadi, Jessica Salerno, Lenny S. Weiss, James J. Menegazzi, Hassan Karimi, and David D. Salcido. "Simulating Public Buses as a Mobile Platform for Deployment of Publicly Accessible Automated External Defibrillators." *Prehospital Emergency Care*, June 2019, 1—

7. https://doi.org/10.1080/10903127.2019.1623353. Open Access

Nagase, Aki, Hiroshi Kaneko, Tetsuo Hatanaka, Seishiro Marukawa, and Tetsuya Sakamoto. "A Mismatch of Spatial Distribution between AED Installation and Out-of-Hospital Cardiac Arrest." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.119.

Peran, David, Jaroslav Pekara, and Ondrej Franek. "Use of AED in Cardiac Arrests in the Prague City between 2012 and 2018." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.204.

Stieglis, Remy, and Rudolph Koster. "Minimal AED and Volunteer Rescuers Density Needed for an Effective Lay Rescuer Network for Out-of-Hospital Cardiac Arrest." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.016.

Zhang, Lin, Boyu Li, Xufeng Zhao, Yiqin Zhang, Yiting Deng, Anqi Zhao, Wenjie Li, Xuejie Dong, and Zhi-Jie Zheng. "Public Access of Automated External Defibrillators in a Metropolitan City of China." *Resuscitation* 140 (July 2019): 120–26. https://doi.org/10.1016/j.resuscitation.2019.05.015.

CPR Training and Simulation

Abdulhay, Nabil M, Konstantinos Totolos, Shaun McGovern, Nicole Hewitt, Abhishek Bhardwaj, David G Buckler, Marion Leary, and Benjamin S Abella. "Socioeconomic Disparities in Layperson CPR Training within a Large U.S. City." *Resuscitation* 141 (June 2019): 13–18. https://doi.org/10.1016/j.resuscitation.2019.05.038.

Baldi, Enrico, Enrico Contri, Roman Burkart, Paola Borrelli, Ottavia Eleonora Ferraro, Chiara Barbati, Alice Gabbrielli, et al. "Hands-Only CPR, Are We Doing the Best? Results from Multicenter International Randomized Controlled Manikin Study on Different Protocols of Cardiopulmonary Resuscitation for Laypeople (MANI-CPR Trial)." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.161.

Jang, Tae Chang, Sung Bae Moon, and Hyun Wook Ryoo. "Long-Term Benefits of Cardiopulmonary Resuscitation Training Using Real Time Visual Feedback Manikins." *Resuscitation* 0, no. 0 (n.d.). https://doi.org/10.1016/J.RESUSCITATION.2019.06.172.

How to contact your Library Service

Service	Contact	Services Offered
North East Ambulance	eMail: Matt.Holland@nwas.nhs.uk	Document Supply; Searches;
Service	Link to: <u>Library Website</u>	Current Awareness; Guides &
		Help;
North West Ambulance	eMail: Matt.Holland@nwas.nhs.uk	Document Supply; Searches;
Service	Link to: <u>Library Website</u>	Current Awareness; Guides &
		Help;
East Midland Ambulance	eMail: Matt.Holland@nwas.nhs.uk	Document Supply; Searches;
Service	Link to: <u>Library Website</u>	Current Awareness; Guides &
		Help;
Yorkshire Ambulance	eMail: Matt.Holland@nwas.nhs.uk	Document Supply; Searches;
Service	Link to: <u>Library Website</u>	Current Awareness; Guides &
		Help;

South Central	eMail: Matt.Holland@nwas.nhs.uk	Document Supply; Searches;
Ambulance Service	Link to: <u>Library Website</u>	Current Awareness; Guides &
		Help;
South Western	eMail: <u>library.mailbox@nhs.net</u>	Document Supply; Searches;
Ambulance Service	Link to: http://discoverylibrary.org/SWASFT	Current Awareness; Guides &
		Help;
East of England	eMail: Matt.Holland@nwas.nhs.uk	Document Supply; Searches;
Ambulance Service	Link to: <u>Library Website</u>	Current Awareness; Guides &
		Help;
West Midlands	eMail: Matt.Holland@nwas.nhs.uk	Document Supply; Searches;
Ambulance Service	Link to: <u>Library Website</u>	Current Awareness; Guides &
		Help;
South East Coast	eMail: Matt.Holland@nwas.nhs.uk	Document Supply; Searches;
Ambulance Service	Link to: <u>Library Website</u>	Current Awareness; Guides &
		Help;
Isle of Wight	eMail: library@iow.nhs.uk	Full library membership of
	Link to: Library Website	the Oliveira Library.
London Ambulance	eMail: <u>CARU.Administrator@lond-</u>	Document Supply, Research
Service	amb.nhs.uk	

Feedback to

Matt Holland, LKS ASE Librarian

(on behalf of the National Ambulance Research Steering Group)

Email: Matt.Holland@nwas.nhs.uk

This Current Awareness Update was commissioned by the National Ambulance Research Steering Group comprising of research leads from ambulance trusts in England, Scotland and Wales and other experts and groups supporting prehospital research. The aim of the group is to support the strategic development of ambulance and prehospital research whether leading, collaborating in or using research.