

Executive summary of the main changes since the 2021 Guidelines

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Introduction

Guidelines 2025 have been developed as the result of a continuous process over the last four years led by the International Liaison Committee on Resuscitation (ILCOR). The Guidelines align with the rigorous approach taken by the National Institute for Health and Care Excellence (NICE), which includes:

- Systematic reviews using Grading of Recommendations Assessment, Development, and Evaluation (GRADE) methodology to grade the certainty of evidence and strength of recommendations. These reviews formed the basis of the ILCOR Consensus on Science with Treatment Recommendations (CoSTR) summary publications and the CoSTR postings on the [ILCOR website](#).
- The involvement of stakeholders from around the world, including members of the public and cardiac arrest survivors.
- Collaboration with the European Resuscitation Council (ERC) and adaptation of the [ERC Guidelines](#) for use in the UK.
- [Contact us](#) to receive details of the guideline's development process.

Main changes in Resuscitation Guidelines 2025

The main changes in the Resuscitation Guidelines 2025 are summarised in the sections below.

Education

Resuscitation education should begin early, with awareness campaigns tailored to diverse communities and resuscitation training introduced in childhood from age 4-6, continuing annually in schools. Accredited training must be provided for all healthcare professionals, tailored to their role, setting, and patient population, while ambulance service call handlers should be trained in cardiac arrest recognition and telephone-assisted CPR. Teaching methods should include gamified learning, real-time feedback devices, Rapid Cycle Deliberate Practice, and flexible stepwise approaches. Ethical decision-making and team competencies should be embedded throughout education.

Technology-enhanced and workplace-based approaches are central to modern training. Online resources, augmented reality, and artificial intelligence can support flexible and engaging learning, while in-situ simulation, scripted debriefing tools, and concise team debriefings strengthen clinical application. Faculty development is essential, with structured programmes delivered by trainers with medical education expertise. In low-resource or remote settings, materials and campaigns should be adapted to the context, with distance or hybrid learning and low-cost manikins supporting accessible training.

Epidemiology of cardiac arrest

This section presents epidemiology and outcomes of cardiac arrest data drawn from UK studies, including both in-hospital and out-of-hospital settings.

Out-of-Hospital Cardiac Arrest (OHCA)

Around 115,000 OHCA's are reported to ambulance services annually, with resuscitation attempted in approximately 43,000 cases. Incidence ranges from 54 per 100,000 in England to 92 per 100,000 in Wales. Most occur at home, in men, and in adults aged over 65, with 80% of cardiac origin. Bystander CPR is provided in 60-73% of cases, though AED use remains under 10%. A shockable rhythm is seen in 15-22%. ROSC is achieved in about a quarter overall and in 50-57% of the Utstein group. Thirty-day survival is 9-10% overall and around 30% in the Utstein group. Outcomes are poorer in deprived, urban, and ethnically diverse areas. Paediatric OHCA is rare, with around 750-800 cases each year.

In-Hospital Cardiac Arrest (IHCA)

The incidence of IHCA is 0.9 per 1,000 admissions, equating to around 12,755 cases in 2023-24, including 200 in children. Half occur on wards, with others at presentation or in critical care. Among adults, initial rhythm is VF/VT in 18%, PEA in 52%, and asystole in 20%. ROSC is achieved in just over half, with survival to discharge at 26% overall (53% in VF/VT, 17% in PEA, 12% in asystole). In children, 69% achieve ROSC and 54% survive to discharge, with better outcomes in VF/VT and bradycardia. Data on longer-term and neurological outcomes remain limited.

Ethics

The 2025 ethics in resuscitation guidance emphasises early, person-centred conversations about emergency and future care, supported by clear documentation such as ReSPECT forms that are accessible across care settings. While final decisions in emergencies rest with the treating team, organisations should provide training, policies, and audit processes to ensure consistent practice. Families should be given the option to be present during resuscitation, with appropriate support.

Termination of resuscitation should consider patient values, the absence of reversible causes, and prolonged unsuccessful efforts. Ethical training, including the use of simulation, should be embedded in resuscitation education to prepare clinicians for complex decision-making.

Systems saving lives

The 2025 Systems Saving Lives guidance emphasises strengthening the chain of survival through advocacy, education, and system-wide coordination. Mandatory CPR training for schoolchildren, students, and drivers is recommended, with annual training starting from age four and supported by technology-enhanced methods and community initiatives. First responder systems linked to AED registries, alongside improved ambulance and hospital processes, are central to reducing time to CPR and defibrillation and improving outcomes. Regional networks should be used for post-arrest care, with hospitals adopting structured quality improvement and supporting family presence during CPR.

The guidance also highlights the need for comprehensive survivorship care, supporting both patients and co-survivors from discharge through long-term

recovery, with survivors engaged in policy and research. In low-resource settings, strategies should be adapted to local context, and international collaboration is encouraged.

Adult basic life support

The 2025 Adult Basic Life Support guidance reinforces that everyone can learn CPR and use an AED, with emphasis on early recognition of cardiac arrest, calling 999, and starting chest compressions immediately. New guidance advises calling 999 for any unresponsive person before assessing breathing, with ambulance service call handlers supporting recognition and CPR instructions. Chest compressions should be delivered at 100-120 min⁻¹ to a depth of 5-6 cm, with minimal interruptions. Rescue breaths may be given if trained, but chest-compression-only CPR is recommended for untrained rescuers.

The role of ambulance service call handlers is highlighted, including guiding callers through CPR and AED use and linking with volunteer first responder systems and the nearest AED through the Circuit. Bystander CPR and early defibrillation remain critical, doubling to quadrupling survival chances, and rescuers are reassured that the risk of harm is very low. The guidelines also recognise that attempting resuscitation can be distressing for lay rescuers and recommend that systems provide support after such events.

Adult advanced life support

The 2025 Adult Advanced Life Support (ALS) guidance retains the core priorities of early recognition, high-quality chest compressions, rapid defibrillation, and prompt treatment of reversible causes, with greater emphasis on effective ventilation and correct pad placement. Adrenaline remains recommended early in non-shockable rhythms and after the third shock in shockable rhythms. Hospitals should strengthen systems to prevent in-hospital cardiac arrest through early warning scores, critical care outreach, and patient and family escalation systems. Out-of-hospital prevention focuses on identifying and managing cardiovascular risk factors, inherited conditions, and early warning symptoms, especially in younger patients.

ALS treatment should begin as early as possible in both in- and out-of-hospital settings, with trained teams, standardised equipment, and structured communication. Guidance includes detailed recommendations on defibrillation

strategies, airway management, drug use, and post-resuscitation arrhythmia care. Data-driven debriefing is encouraged to improve team performance, while extracorporeal CPR may be considered in specialist centres when conventional CPR fails. Emerging issues such as CPR-induced consciousness require careful management with sedation and analgesia.

Special circumstances

The 2025 special circumstances guidance reinforces that while standard ALS algorithms remain the foundation, clinicians must rapidly recognise and treat reversible causes beyond ischaemic heart disease. Key updates include greater emphasis on ethical preparedness, simulation-based education, and the selective use of extracorporeal CPR in refractory arrests, particularly in cases of hypothermia, thrombosis, or toxin exposure. Guidance also addresses contexts such as pregnancy (including resuscitative hysterotomy), obesity, haemodialysis, sport, and the operating theatre. Across all scenarios, the guidance highlights early recognition, context-specific action, multidisciplinary teamwork, and continuous system improvement as essential to improving outcomes.

Post-resuscitation care

The 2025 adult post-resuscitation care guidance emphasises immediate, structured management after ROSC, using an ABC approach with airway protection, controlled oxygenation, normocapnia, and blood pressure targets above 100 mmHg systolic or MAP 60-65 mmHg. Coronary angiography should be prioritised for patients with ST-elevation or a strong suspicion of occlusion, while whole-body CT is recommended to identify non-coronary causes. Fever prevention ($\leq 37.5^{\circ}\text{C}$) is advised for comatose patients, with temperature control maintained for 36-72 h. Seizures should be treated with levetiracetam or sodium valproate, and neuroprotective drugs are not routinely recommended.

Multimodal neurological prognostication at ≥ 72 h post-ROSC combines examination, EEG, biomarkers, and imaging, with high specificity required to avoid false pessimism. Withdrawal of life-sustaining therapy must be separated from prognostication and based on wider clinical and patient factors. Early rehabilitation, structured follow-up within three months, and support for survivors and co-survivors are recommended. Organ donation should be considered in patients who progress to death after ROSC, and unexplained cardiac arrests

should be investigated with genetic and advanced cardiac testing. Regional networks are reinforced as key to optimising outcomes.

Paediatric life support (basic and advanced)

The G2025 Paediatric Guideline emphasises early recognition of critical illness in children using structured tools and timely ABCDE assessment, supported by clear team activation processes. It provides detailed recommendations for paediatric basic and advanced life support, including weight-based drug dosing, shock management, ventilation, arrhythmias, and the use of high-quality CPR with early defibrillation when appropriate. Extracorporeal CPR is highlighted for selected cases, with a strong focus on prevention, early intervention, and a family-centred approach.

Key updates include the addition of a new chapter on special circumstances in paediatric resuscitation and the inclusion of post-resuscitation care tailored to children. These sections extend the chain of survival, emphasising reversible cause identification, context-specific management (such as trauma, asthma, drowning, and hypothermia), and structured follow-up after resuscitation to support recovery and outcomes.

Newborn resuscitation and support of transition of infants at birth

The 2025 newborn resuscitation guidance focuses on supporting safe transition at birth with structured assessment, timely interventions, and clear team processes. Initial assessment now places less emphasis on skin colour, recognising its subjectivity and unreliability across different skin tones; heart rate, breathing, tone, and response to stimulation are prioritised instead. Airway management is strengthened with recommendations for two-person jaw thrust, early use of supraglottic airways, and video laryngoscopy where available. Adrenaline dosing intervals are standardised to every 4 min, while sodium bicarbonate is no longer recommended.

The guidance also extends beyond the birthing room, with out-of-hospital newborn life support now explicitly included. Practical recommendations are provided for home births, unexpected births outside hospital, and ambulance care, covering planning, equipment, thermal protection, airway support, vascular access, and safe transfer, with telemedicine support where feasible. Post-

resuscitation care highlights temperature control, glucose management, accurate documentation, early prognostic assessment, and family involvement. Decisions on withholding or discontinuing resuscitation should involve senior clinicians, guided by gestation, clinical response, and parental wishes, with palliative care offered when appropriate.

First aid

The 2025 Resuscitation Guidelines introduce first aid as a brand-new chapter, recognising it as the essential first link in the chain of survival. The guidance defines first aid as help provided by anyone, in any situation, and emphasises early help, scene safety, and structured assessment using the ABCDE approach. Clear expectations are set for first aid providers: call 999 promptly, only use equipment or medicines you are trained to use, and prioritise reassurance and safety until professional help arrives. Key emergencies covered include choking, life-threatening bleeding, drowning, chest pain, asthma, anaphylaxis, hypoglycaemia, opioid overdose, stroke, and trauma, with simple stepwise interventions such as recovery position, tourniquets, adrenaline autoinjectors, and naloxone use where appropriate.

The chapter also extends to environmental and situational emergencies such as heat stroke, hypothermia, snake bite, and concussion. First aid courses are encouraged to be inclusive, accessible, and tailored to the needs of communities, including low-resource and rural settings, while supporting bystanders to overcome fear, anxiety, and moral distress. This new addition reinforces that everyone has a role in saving lives, embedding first aid as an integral part of the UK's resuscitation framework.

Future iterations

It is intended that there will continue to be a Guideline summary and update for courses every five years; however, the ILCOR evidence evaluation process will be continuous as evidence evolves. It is intended that the Resuscitation Council UK Guidelines will only change within the five-year cycle if there is a significant resuscitation intervention identified through the ILCOR process which affects outcome to a significant degree. These Guidelines 2025 will be implemented in courses from January 2026.

References

ERC Guidelines 2025: <https://cprguidelines.eu/>

International Liaison Committee on Resuscitation Consensus on Science and Treatment Recommendations: <https://costr.ilcor.org>

Downloads

[Guidelines Equality Impact Assessment G2025](#) 198.71 KB