Key points

• The 2021 guidelines continue to highlight the importance of integrating decisions about cardiopulmonary resuscitation in overarching advance emergency care treatment plans (e.g. Recommended Summary Plan for Emergency Care and Treatment (ReSPECT) process)

• Key changes since the 2015 guidelines include:
  ◦ recognition of the importance of communication strategies and interventions to support discussions with patients and their family members
  ◦ support for offering family members to witness resuscitation attempts, where this can be facilitated by the treating team
  ◦ importance of health systems monitoring outcomes following cardiac arrest (e.g. through participation in the Out-of-Hospital Cardiac Arrest Outcomes registry or National Cardiac Arrest Audit) to help reduce variability in patient outcome
  ◦ description of ethical principles that apply to the conduct of research in emergency care.
Introduction

Guidelines 2021 are based on the International Liaison Committee on Resuscitation 2020 Consensus on Science and Treatment Recommendations and the European Resuscitation Council Guidelines for Resuscitation (2021). Refer to the ERC guidelines publications for supporting reference material. The process by which the RCUK guidelines have been developed are detailed in the Guidelines Development Process Manual.

In previous Resuscitation Council UK guidelines, coverage of ethical principles has been limited to specific issues (e.g. decisions about CPR) or has formed a subsection of other sections. This 2021 Resuscitation Council UK Ethics Guideline provides an overview of key ethical issues linked to resuscitation. The guidelines are based on the guidelines developed by the European Resuscitation Council, core ethical principles, and UK law. These guidelines should be operationalised in accordance with national mental capacity law.

Management of cardiac arrest in patients with known or suspected COVID-19 is not specifically included in these guidelines, but is covered within RCUK’s separate COVID-19 guidance.

The process used to produce the Resuscitation Council UK Guidelines 2021 is accredited by the National Institute for Health and Care Excellence (NICE). The guidelines process includes:

- Systematic reviews with grading of the certainty of evidence and strength of recommendations. This led to the International Liaison Committee on Resuscitation (ILCOR) Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment Recommendations.
- The involvement of stakeholders from around the world including members of the public and cardiac arrest survivors.
- Details of the guidelines development process can be found in the Resuscitation Council UK Guidelines Development Process Manual.

Guidelines

Patient preferences and treatment decisions
Clinicians should:

- Use advance care planning that promotes shared decision-making to improve consistency between patient wishes and treatment.
- Offer advance care planning to all patients at increased risk of cardiac arrest or poor outcome in the event of cardiac arrest.
- Support advance care planning in all cases where it is requested by the patient.
- Record advance care plans in a consistent manner (e.g. electronic registries, documentation templates).
- Integrate resuscitation decisions with other treatment decisions, such as invasive mechanical ventilation, in overarching advance emergency care treatment plans (e.g. Recommended Summary Plan for Emergency Care and Treatment (ReSPECT) process) to increase clarity of treatment goals and prevent inadvertent deprivation of other indicated treatments.
- Not offer cardiopulmonary resuscitation in cases where resuscitation would be futile.

Improving communication

- Clinicians should use evidence-based communication interventions to improve end-of-life discussions and support completion of advance decisions/advance care plans.
- Healthcare organisations should provide clinicians with communication skills training interventions to improve clinicians’ skill and comfort in delivering bad news or supporting patients to define treatment and care goals.
- Clinicians should integrate the following patient/family support elements with shared decision-making:
  1. Provide information about the patient’s diagnosis and prognosis in a clear and honest manner. This may be supported by use of a video-support tool.
  2. Seek information about the patient’s goals, values, and treatment preferences.
  3. Involve patients/family members in discussions about advance care plans.
  4. Provide empathic statements assuring non-abandonment, symptom control, and decision-making support.
  5. Provide the option of spiritual support.
  6. Where appropriate, explain and apply protocolised patient-centred procedures for treatment withdrawal with concurrent symptom control.
and patient/family psychological support.
7. Consider recording meetings with family for the purpose of audit/quality improvement.

Deciding when to start and when to stop cardiopulmonary resuscitation (CPR)*

• Organisations caring for people who may have a cardiac arrest should implement criteria for the withholding and termination of CPR for both in-hospital cardiac arrest (IHCA) and out-of-hospital cardiac arrest (OHCA), taking into consideration the specific local, legal, organisational, and cultural context.
• Organisations caring for people who may have a cardiac arrest should define criteria for the withholding and termination of CPR, and ensure criteria are validated locally. The following criteria may be considered:
  ○ Unequivocal criteria:
    ▪ when the safety of the provider cannot be adequately assured
    ▪ when there is obvious mortal injury or irreversible death
    ▪ when a valid and relevant advance decision becomes available that recommends against the provision of CPR.
  ○ Further criteria to inform decision making:
    ▪ persistent asystole despite 20 minutes of advanced life support (ALS) in the absence of any reversible cause
    ▪ unwitnessed cardiac arrest with an initial non-shockable rhythm where the risk of harm to the patient from ongoing CPR likely outweighs any benefit e.g. absence of return of spontaneous circulation (ROSC), severe chronic co-morbidities
    ▪ other strong evidence that further CPR would not be consistent with the patient’s values and preferences, or in their best interests.
  ○ Criteria that should not, individually inform decision-making:
    ▪ pupil size
    ▪ CPR duration
    ▪ end-tidal carbon dioxide (ETCO₂) value
    ▪ co-morbid state
    ▪ initial lactate value
    ▪ suicide attempt.
• Clinicians should clearly document reasons for the withholding or termination of CPR, and reasons should be audited by healthcare organisations.
• Clinicians should start CPR in patients who do not meet local criteria for withholding CPR. Treatments may then be tailored as more information becomes available.
• Clinicians should not partake in the deceptive practice of purposely delivering sub-optimal CPR (a “slow code”).
• During a pandemic, resource demand (e.g. critical care beds, ventilators, staffing, drugs) may significantly exceed resource availability. Healthcare teams should carefully assess each individual patient’s likelihood of survival and/or good long-term outcome and their expected resource use to optimise allocation of resources. Clinicians should not use categorical or blanket criteria (e.g. age thresholds) to determine the eligibility of a patient to receive treatment.
• Systems that offer organ donation following cardiac arrest should ensure the development of transparent processes for the identification of potential donors, the obtaining of consent and organ preservation.

*Guidance on withholding or discontinuing resuscitation in neonates is included in the Resuscitation Council UK Newborn Life Support Guidelines.

**Bystander CPR**

Ambulance services should:

• recognise the importance of bystander CPR as a core component of the community response to OHCA
• recognise bystander CPR as a voluntary act, with no perceived moral or legal obligation to act
• support bystanders in minimising the impact on their own health of performing bystander CPR. In the context of transmissible disease (such as COVID-19), bystanders also have a responsibility of preventing further disease transmission to other individuals in the immediate vicinity and the wider community
• aim to identify cases where bystander CPR is likely to be beneficial and cases where it is unlikely to be beneficial.

**Family presence during resuscitation**

Resuscitation teams should offer family members (and other individuals that are close to the patient) of cardiac arrest patients the opportunity to be present during the resuscitation attempt in cases where this opportunity can be provided safely, and a member of the team can be allocated to provide support.
Healthcare providers should provide clinicians with training on how best to provide information and support to family members during resuscitation attempts.

**Patient outcomes and ethical considerations**

- When making decisions about CPR, clinicians should aim to explore and understand, where possible, the value that a patient places on specific outcomes.
- Organisations caring for people who may have a cardiac arrest should monitor outcomes following cardiac arrest (e.g. through participation in the Out-of-Hospital Cardiac Arrest Outcomes registry or National Cardiac Arrest Audit), and identify opportunities to implement evidence-based interventions to reduce variability in patient outcome.

**Ethics and emergency research**

- Healthcare providers and funders should support the delivery of high-quality emergency, interventional and non-interventional research, as an essential component of optimising cardiac arrest outcomes.
- Researchers should, wherever feasible, involve patients and members of the public throughout the research process, including design, delivery and dissemination of the research.
- Communities or populations in which research is undertaken and who bear the risk of research-related adverse events, should be given the opportunity to benefit from its results.
- Researchers must ensure that research has been reviewed and approved by an independent ethical review committee, in line with local law, prior to it being commenced.
- Cardiac arrest research should, wherever feasible, collect core outcomes, as described in the core outcome set for cardiac arrest.
- Researchers must respect the dignity and privacy of research subjects, their families, and other individuals that are close to the patient.
- Researchers should comply with best practice guidance to ensure transparency of research, including study protocol registration, prompt reporting of results, and data sharing.
- Research funders should ensure that funding for cardiac arrest research is proportionate to the societal burden caused by cardiac arrest-associated morbidity and mortality.
References

ERC Guidelines 2021: https://cprguidelines.eu/

Related content
ReSPECT
Guidance: DNACPR and CPR decisions