Decisions Relating to Resuscitation

CHAPTER 16

Learning outcomes

To understand:

- **Ethical principles**
- **Advance decisions to refuse treatment**
- **When not to start cardiopulmonary resuscitation (CPR)**
- **Discussing CPR decisions with patients and those close to them**
- **Who should make decisions about CPR**
- **When to stop resuscitation attempts**

Introduction

Successful resuscitation attempts have brought extended, useful and precious life to many individuals. However, only a minority of people survive and make a complete recovery after attempted resuscitation from cardiac arrest. Attempted resuscitation carries a risk of causing suffering and prolonging the process of dying. It is not an appropriate goal of medicine to prolong life at all costs. Ideally, decisions about whether or not it is appropriate to start cardiopulmonary resuscitation (CPR) should be made in advance, as part of the overall concept of advance care planning. Detailed guidance has been published by the British Medical Association (BMA), Resuscitation Council (UK) {RC(UK)} and Royal College of Nursing (RCN) and also by the General Medical Council (GMC). As an ALS provider, you should read and be familiar with that guidance and follow the principles that it contains.

It is incumbent on all healthcare practitioners to practice within the law. The law as it relates to CPR varies from country to country. Even within the UK there are some differences between countries. This is addressed within the joint statement by the BMA, RC(UK) and RCN. As an ALS provider you should be familiar with the relevant aspects of law in the country where you live and work. Guidance on the legal status of those who attempt resuscitation has been published by the RC(UK).

Discussing decisions about CPR can be difficult and distressing for patients and relatives, and for healthcare providers. These decisions may be influenced by various factors including personal beliefs and opinions, cultural or religious influences, ethical and legal considerations, and by social or economic circumstances. Some patients with capacity decide that they do not want treatment and record their wishes in an advance decision to refuse treatment (formerly known as 'living wills'). As an ALS provider you should understand the ethical and legal principles as well as the clinical aspects involved before undertaking discussions or making a decision about CPR.

Principles

The four key principles of medical ethics are summarised in the box:

Beneficence requires provision of benefit while balancing benefit and risks. Commonly this will involve attempting CPR but if risks clearly outweigh any likely benefit it will mean withholding CPR. Beneficence includes also responding to the overall needs of the community, such as establishing a programme of public access defibrillation.

Non-maleficence means doing no harm. CPR should not be attempted in people in whom it will not succeed, where no benefit is likely but there is a clear risk of harm.

Justice implies a duty to spread benefits and risks equally within a society. If CPR is provided, it should be available to all who may benefit from it; there should be no discrimination purely on the grounds of factors such as age or disability.

Autonomy relates to people making their own informed decisions rather than healthcare professionals making decisions for them. Autonomy requires that a person with capacity is adequately informed, is free from undue pressure, and that there is consistency in their preferences.

Advance decisions to refuse CPR

Advance decisions to refuse treatment have been introduced in many countries and emphasise the importance of patient autonomy. Resuscitation must not be attempted if CPR is contrary to the recorded, sustained wishes of an adult who had capacity and was aware of the implications at the time of making that advance decision. However, it is important to ensure that an advance decision is valid and that the circumstances in which the decision is applied are those that were envisaged or defined at the time that it was made.

The term ‘advance decision’ may apply to any expression of patient preferences. Refusal does not have to be in writing in order to be valid. If patients have expressed

clear and consistent refusal verbally, this is likely to have the same status as a written advance decision. People should ensure that their healthcare team and those close to them are aware of their wishes.

In sudden out-of-hospital cardiac arrest, those attending usually do not know the patient's situation and wishes and, even if an advance decision has been recorded, it may not be available. In these circumstances CPR can be started immediately and any further information obtained when possible. There is no ethical difficulty in stopping a resuscitation attempt that has started if the healthcare professionals are presented later with a valid advance decision refusing the treatment that has been started.

There is still considerable international variation in the medical attitude to written advance decisions. In some countries, such as the UK, a written advance decision is legally binding. Where no explicit advance decision has been made and the express wishes of the patient are unknown there is a presumption that healthcare professionals will, if appropriate, make all reasonable efforts to resuscitate the patient.

When to withhold CPR

While patients have a right to refuse treatment, they do not have an automatic right to demand treatment; they cannot insist that resuscitation must be attempted in any circumstance. Doctors cannot be required to give treatment that is contrary to their clinical judgement. This type of decision is often complex and should be undertaken by senior, experienced members of the medical team.

The decision to make no resuscitation attempt raises several ethical and moral questions. What constitutes futility? What exactly should be withheld? Who should decide and who should be consulted? Who should be informed?

What constitutes futility?

Futility may be considered to exist if resuscitation will not prolong life of a quality that would be acceptable to the patient. Although predictors of non-survival after attempted resuscitation have been published, none has sufficient predictive value when applied to an independent validation group. Furthermore, the outcome for a cohort undergoing attempted resuscitation is dependent on system factors such as time to CPR and time to defibrillation. It is difficult to predict how these factors will impact on the outcome of individuals.

Inevitably, judgements will have to be made, and there will be grey areas where subjective opinions are required in patients with comorbidity such as heart failure, chronic respiratory disease, asphyxia, major trauma, head injury and neurological disease. The age of the patient may feature in the decision but is only a relatively weak independent predictor of outcome; however, the elderly commonly have significant comorbidity, which influences outcome.

What exactly should be withheld?

Do not attempt resuscitation (DNAR) means that in the event of cardiac or respiratory arrest, CPR should not be started - nothing more than that. Other treatment should be continued, including pain relief and sedation, as required. Treatment such as ventilation and oxygen therapy, nutrition, antibiotics, fluid and vasopressors, is also continued as indicated. If not, orders not to continue or initiate any such treatments should be made independently of DNAR orders.

In the past, in many countries, doctors would make a DNAR decision without consulting with the patient, the relatives, or other members of the health care team. Many countries have now published clear guidelines on how these decisions should be taken. In most cases, this guidance emphasises involvement by the patient and/or relatives.

Who should decide not to attempt resuscitation and who should be consulted?

The overall responsibility for this decision rests with the senior healthcare professional in charge of the patient after appropriate consultation with other healthcare professionals involved in the patient's care.

People have ethical and legal rights to be involved in decisions that relate to them and if the patient has capacity their views should be sought unless there is a clearly justifiable reason to indicate otherwise. It is not necessary to initiate discussion about CPR with every patient, for example if there is no reason to expect cardiac arrest to occur, or if the patient is in the final stage of an irreversible illness in which CPR would be inappropriate as it would offer no benefit.

It is good practice to involve relatives in decisions although they have no legal status in terms of actual decision-making. A patient with capacity should give their consent before involving the family in a DNAR discussion. Refusal from a patient with capacity to allow information to be disclosed to relatives must be respected.

If patients who lack capacity have previously appointed a welfare attorney with power to make such decisions on their behalf, that person must be consulted when a decision has to be made balancing the risks and burdens of CPR. There are slight differences in the law relating to patients who lack capacity in England & Wales, in Scotland and in Northern Ireland, so it is essential to be familiar with the law that applies in your locality.

In some circumstances there are legal requirements to involve others in the decision-making process when a patient lacks capacity. For example the Mental Capacity Act 2005, which applies in England and Wales requires

appointment of an Independent Mental Capacity Advocate (IMCA) to act on behalf of the patient who lacks capacity. However, when decisions have to be made in an emergency, there may not be time to appoint and contact an IMCA and decisions must be made in the patient's best interests, and the basis for such decisions documented clearly and fully.

When differences of opinion occur between the healthcare team and the patient or their representatives these can usually be resolved with careful discussion and explanation, or if necessary by obtaining a second clinical opinion. In general, decisions by legal authorities are often fraught with delays and uncertainties, especially if there is an adversarial legal system, and formal legal judgement should be sought only if there are irreconcilable differences between the parties involved. In particularly difficult cases, the senior doctor may wish to consult his/her own medical defence society for a legal opinion.

Who should be informed?

Once the decision has been made it must be communicated clearly to all who may be involved, including the patient. Unless the patient refuses, the decision should also be communicated to the patient's relatives. The decision, the reasons for it, and a record of who has been involved in the discussions should be recorded in the medical notes - ideally on a special DNAR form - and should clearly document the date the decision was made. The decision should be recorded in the nursing records, if these are separate. The decision must be communicated to all those involved in the patient's care.

Communicating decisions about CPR to patients and those close to them

Whilst it is generally advisable to explain to patients and those close to them any decisions that have been taken about their treatment, and the reasons for those decisions, it is important that this is not done without careful consideration. This topic is also covered in the BMA, RC(UK) and RCN joint statement, which emphasises that it is not necessary to inform every patient about a decision not to attempt CPR because it would not be successful, where discussing that decision would be unnecessarily distressing and of little or no value to the patient. Any discussion with those close to patients must respect the patient's wishes in relation to confidentiality.

Communicating decisions about CPR to the healthcare team

Good communication within the team is an essential component of high quality, safe healthcare. When a decision is made not to attempt CPR, the basis for that decision, details of those involved in making it, and details of discussions with patients and those close to them should be recorded. The decision itself should be recorded in a way that is immediately available and recognisable to those present, should the patient suffer sudden cardiac arrest. The RC(UK) has defined standards for the recording of decisions relating to CPR and has developed a model form for recording decisions not to attempt CPR in any individual. Such decisions were referred to at one time as 'Do Not Resuscitate' (DNR) decisions. DNR was replaced by DNAR ('Do Not Attempt Resuscitation') to emphasise the reality that many resuscitation attempts will not be successful. Unfortunately some healthcare providers have mistakenly and inappropriately interpreted the recording of these decisions as indicating that other treatment can or should be withheld. To discourage this it has been suggested that the term DNACPR should be used, to try to emphasise that the recorded decision refers only to the use of CPR and not to any other aspect of treatment that the patient may need. As an ALS provider you should ensure that you record decisions about CPR fully, clearly and accurately, and that these decisions do not (through your actions or those of others) lead to withholding from patients other treatment that they may need. Whilst the term 'DNAR' is used throughout RC(UK) material, it is interchangeable and identical in definition with the term 'DNACPR' which is also in common use.

When to stop CPR

Most of resuscitation attempts do not succeed and in those that are unsuccessful a decision has to be made to stop CPR. This decision can be made when it is clear that continuing CPR will not be successful. Factors influencing the decision will include the patient's medical history and prognosis, the cardiac arrest rhythm that is present, the response or lack of response to initial resuscitation measures, and the duration of the resuscitation attempt (particularly if the rhythm is asystole - see below). Sometimes, during a resuscitation attempt, further information becomes available that was not known at the time CPR was started, and that indicates that further CPR will not succeed. It is appropriate to stop CPR in those circumstances.

In general, CPR should be continued as long as a shockable rhythm or other reversible cause for cardiac arrest persists. It is generally accepted that asystole for more than 20 min in the absence of a reversible cause (see below), and with all advanced life support measures in place, is unlikely to respond to further CPR and is a reasonable basis for stopping CPR.

A decision to abandon CPR is made by the team leader, but this should be after consultation with the other team members. Ultimately, the decision is based on a clinical judgement that further advanced life support will not re-start the heart and breathing.

Decision making by non-doctors

Many cases of out-of-hospital cardiac arrest are attended by emergency medical technicians or paramedics, who

face similar dilemmas about when CPR will not succeed and when it should be stopped. In general CPR will be started in out-of-hospital cardiac arrest unless there is a valid advance decision refusing it or a valid DNAR order or it is clear that CPR would be futile, for example, in cases of mortal injuries such as decapitation or hemicorporectomy, known prolonged submersion, incineration, rigor mortis, and dependent lividity. In such cases, the non-doctor can identify that death has occurred but does not certify the cause of death (which in most countries can be done only by a physician or coroner).

But when should a decision be made to abandon a resuscitation attempt? For example, should ALS trained paramedics be able to declare death when the patient remains in asystole after 20 min despite ALS interventions? In some countries, including the UK, paramedics may cease a resuscitation attempt in this situation. Their strict protocol requires that certain conditions that might indicate a remote chance of survival (e.g. hypothermia) are absent. The presence of asystole must also be established beyond reasonable doubt and documented on ECG recordings (see Chapter 14).

Similar decisions about initiating resuscitation or recognising that death has occurred and is irreversible may be made by experienced nurses, working in the community or in establishments that provide care for people who are terminally or chronically ill. Whenever possible in such settings, decisions about CPR should be considered before they are needed, as part of advance care planning. In some situations it will be appropriate for experienced nurses to undertake any necessary discussions and to make and record a DNAR order on behalf of the patient and their healthcare team.

Special circumstances

Certain circumstances, e.g. hypothermia at the time of cardiac arrest, will enhance the chances of recovery without neurological damage. In such situations do not use the usual prognostic criteria (such as asystole persisting for more than 20 min) and continue CPR until the reversible problem has been corrected (e.g. re warming has been achieved).

Withdrawal of other treatment after a resuscitation attempt

Prediction of the likely clinical and neurological outcome in people who remain unconscious after regaining a spontaneous circulation is difficult during the first 3 days. In general, other supportive treatment should be continued during this period, after which the prognosis can be assessed with greater confidence. This topic is covered in more detail in Chapter 13.

Key learning points

- In the event of cardiac arrest, CPR should be started promptly and effectively.
- If a valid advance decision refusing CPR has been made, do not attempt CPR.
- When CPR will not re-start the heart and breathing, CPR is not appropriate.
- If continuing CPR will not be successful, make the decision to stop.
- Decisions relating to CPR should be made carefully, recorded fully, and communicated effectively.
- Decisions relating to CPR should not prevent patients from receiving any other treatment needed.

Further reading

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