



European Resuscitation Council Guidelines for Resuscitation 2005

Section 8. The ethics of resuscitation and end-of-life decisions

Peter J.F. Baskett, Petter A. Steen, Leo Bossaert

Introduction

Successful resuscitation attempts have brought extended, useful and precious life to many, and happiness and relief to their relatives and loved ones. And yet, there are occasions when resuscitation attempts have merely prolonged suffering and the process of dying. In few cases resuscitation has resulted in the ultimate tragedy—the patient in a persistent vegetative state. Resuscitation attempts are unsuccessful in 70–95% of cases and death ultimately is inevitable. All would wish to die with dignity.

Several ethical decisions are required to ensure that the decisions to attempt or withhold cardiopulmonary resuscitation (CPR) are appropriate, and that patients and their loved ones are treated with dignity. These decisions may be influenced by individual, international and local cultural, legal, traditional, religious, social and economic factors.^{1–10} Sometimes the decisions can be made in advance, but often they have to be made in a matter of seconds at the time of the emergency. Therefore, it is important that healthcare providers understand the principles involved before they are put in a situation where a resuscitation decision must be made.

This section of the guidelines deals with ethical aspects and decisions, including

- advance directives, sometimes known as living wills;
- when not to start resuscitation attempts;
- when to stop resuscitation attempts;
- decision making by non-physicians;
- when to withdraw treatment from those in a persistent vegetative state following resuscitation;
- decisions about family members or loved ones who wish to be present during resuscitation;
- decisions about research and training on the recently dead;
- the breaking of bad news to relatives and loved ones;
- staff support.

Principles

The four key principles are beneficence, non-maleficence, justice and autonomy.¹¹

Beneficence implies that healthcare providers must provide benefit while balancing benefit and risks. Commonly this will involve attempting resuscitation, but on occasion it will mean withholding

cardiopulmonary resuscitation (CPR). Beneficence may also include responding to the overall needs of the community, e.g. establishing a programme of public access to defibrillation.

Non maleficence means doing no harm. Resuscitation should not be attempted in futile cases, nor when it is against the patient's wishes (expressed when the individual is in a mentally competent state).

Justice implies a duty to spread benefits and risks equally within a society. If resuscitation is provided, it should be made available to all who will benefit from it within the available resources.

Autonomy relates to patients being able to make informed decisions on their own behalf, rather than being subjected to paternalistic decisions being made for them by the medical or nursing professions. This principle has been introduced particularly during the past 30 years, arising from legislature such as the Helsinki Declaration of Human Rights and its subsequent modifications and amendments.¹² Autonomy requires that the patient is adequately informed, competent, free from undue pressure and that there is consistency in the patient's preferences.

Advance directives

Advance directives have been introduced in many countries, emphasising the importance of patient autonomy. Advance directives are a method of communicating the patient's wishes concerning future care, particularly towards the end of life, and must be expressed while the patient is mentally competent and not under duress. Advance directives are likely to specify limitations concerning terminal care, including the withholding of CPR.

The term advance directive applies to any expression of patient preferences, including mere dialogue between patient and/or close relatives and loved ones and/or medical or nursing attendants. This may help healthcare attendants in assessing the patient's wishes should the patient become mentally incompetent. However, problems can arise. The relative may misinterpret the wishes of the patient, or may have a vested interest in the death (or continued existence) of the patient. Healthcare providers tend to underestimate sick patients' desire to live.

Written directions by the patient, legally administered living wills or powers of attorney may eliminate some of these problems but are not without limitations. The patient should describe as precisely as possible the situation envisaged when life

support should be withheld or discontinued. This may be aided by a medical adviser. For instance, many would prefer not to undergo the indignity of futile CPR in the presence of end-stage multi-organ failure with no reversible cause, but would welcome the attempt at resuscitation should ventricular fibrillation (VF) occur in association with a remediable primary cardiac cause. Patients often change their minds with change in circumstances, and therefore the advanced directive should be as recent as possible and take into account any change of circumstances.

In sudden out-of-hospital cardiac arrest, the attendants usually do not know the patient's situation and wishes, and an advance directive is often not readily available. In these circumstances, resuscitation is begun immediately and questions addressed later. There is no ethical difference in stopping the resuscitation attempt that has started if the healthcare providers are later presented with an advance directive limiting care. The family doctor can provide an invaluable link in these situations.

There is considerable international variation in the medical attitude to written advance directives.¹ In some countries, the written advanced directive is considered to be legally binding and disobedience is considered an assault; in others, the advance directive is flagrantly ignored if the doctor does not agree with the contents. However, in recent years, there has been a growing tendency towards compliance with patient autonomy and a reduction in patronising attitudes by the medical profession.¹

When to withhold a resuscitation attempt

Whereas 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. A doctor is required only to provide treatment that is likely to benefit the patient, and is not required to provide treatment that would be futile. However, it would be wise to seek a second opinion in making this momentous decision, for fear that the doctor's own personal values, or the question of available resources, might influence his or her opinion.¹³

The decision to withhold a resuscitation attempt raises several ethical and moral questions. What constitutes futility? What exactly is being withheld? Who should decide? Who should be consulted? Who should be informed? Is informed consent required?

When should the decision be reviewed? What religious and cultural factors should be taken into consideration?

What constitutes futility?

Futility exists if resuscitation will be of no benefit in terms of prolonging life of acceptable quality. It is problematic that, although predictors for non-survival after attempted resuscitation have been published,^{14–17} none has been tested on an independent patient sample with sufficient predictive value, apart from end-stage multi-organ failure with no reversible cause. Furthermore, studies on resuscitation are particularly dependent on system factors such as time to CPR, time to defibrillation, etc. These may be prolonged in any study but not applicable to an individual case.

Inevitably, judgements will have to be made, and there will be grey areas where subjective opinions are required in patients with heart failure and severe respiratory compromise, 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^{18,19}; however, age is frequently associated with a prevalence of comorbidity, which does have an influence on prognosis. At the other end of the scale, most doctors will err on the side of intervention in children for emotional reasons, even though the overall prognosis is often worse in children than in adults. It is therefore important that clinicians understand the factors which influence resuscitation success.

What exactly should be withheld?

Do not attempt resuscitation (DNAR) means that, in the event of cardiac or respiratory arrest, CPR should not be performed; DNAR means nothing more than that. Other treatment should be continued, particularly pain relief and sedation, as required. Ventilation and oxygen therapy, nutrition, antibiotics, fluid and vasopressors, etc., are continued as indicated, if they are considered to be contributing to the quality of life. If not, orders not to continue or initiate any such treatments should be specified independently of DNAR orders.

DNAR orders for many years in many countries were written by single doctors, often without consulting the patient, relatives or other health personnel, but there are now clear procedural requirements in many countries such as the USA, UK and Norway.

Who should decide not to attempt resuscitation?

This very grave decision is usually made by the senior doctor in charge of the patient after appropriate consultations. Decisions by committee are impractical and have not been shown to work, and hospital management personnel lack the training and experience on which to base a judgement. Decisions by legal authorities are fraught with delays and uncertainties, particularly if there is an adversarial legal system, and should be sought only if there are irreconcilable differences between the parties involved. In especially difficult cases, the senior doctor may wish to consult his or her own medical defence society for a legal opinion.

Medical emergency teams (METs), acting in response to concern about a patient's condition from ward staff, can assist in initiating the decision-making process concerning DNAR (see Section 4a).^{20,21}

Who should be consulted?

Although the ultimate decision for DNAR should be made by the senior doctor in charge of the patient, it is wise for this individual to consult others before making the decision. Following the principle of patient autonomy it is prudent, if possible, to ascertain the patient's wishes about a resuscitation attempt. This must be done in advance, when the patient is able to make an informed choice. Opinions vary as to whether such discussions should occur routinely for every hospital admission (which might cause undue alarm in the majority of cases) or only if the diagnosis of a potentially life-threatening condition is made (when there is a danger that the patient may be too ill to make a balanced judgement). In presenting the facts to the patient, the doctor must be as certain as possible of the diagnosis and the prognosis and may seek a second or third medical opinion in this matter. It is vital that the doctor should not allow personal life values to distort the discussion—in matters of acceptability of a certain quality of life, the patient's opinion should prevail.

It is considered essential for the doctor to have discussions with close relatives and loved ones if at all possible. Whereas they may influence the doctor's decision, it should be made clear to them that the ultimate decision will be that of the doctor. It is unfair and unreasonable to place the burden of decision on the relative.

The doctor would also be wise to discuss the matter with the nursing and junior medical personnel, who are often closer to the patient and

more likely to be given personal information. The patient's family doctor may have very close and long-term insight into the patient's wishes and the family relationships, based on years of knowledge of the particular situation.

Who should be informed?

Once the decision has been made it must be communicated clearly to all who may be involved, including patient and relatives. The decision and the reasons for it, and a record of who has been involved in the discussions should be written down, ideally on a special DNAR form that should be placed in a place of prominence in the patient's notes, and should be recorded in the nursing records. Sadly, there is evidence of a reluctance to commit such decisions to writing by doctors in some centres in some countries.²²

When to abandon the resuscitation attempt

The vast majority of resuscitation attempts do not succeed and have to be abandoned. Several factors will influence the decision to stop the resuscitative effort. These will include the medical history and anticipated prognosis, the period between cardiac arrest and start of CPR, the interval to defibrillation and the period of advanced life support (ALS) with continuing asystole and no reversible cause.

In many cases, particularly in out-of-hospital cardiac arrest, the underlying cause of arrest may be unknown or merely surmised, and the decision is made to start resuscitation while further information is gathered. If it becomes clear that the underlying cause renders the situation to be futile, then resuscitation should be abandoned if the patient remains in asystole with all ALS measures in place. Additional information (such as an advance directive) may become available and may render discontinuation of the resuscitation attempt ethically correct.

In general, resuscitation should be continued as long as VF persists. It is generally accepted that ongoing asystole for more than 20 min in the absence of a reversible cause, and with all ALS measures in place, constitutes grounds for abandoning the resuscitation attempt.²³ There are, of course, reports of exceptional cases that prove the general rule, and each case must be assessed individually.

In out-of-hospital cardiac arrest of cardiac origin, if recovery is going to occur, a return of spontaneous circulation usually takes place on site.

Patients with primary cardiac arrest, who require ongoing CPR without any return of a pulse during transport to hospital, rarely survive neurologically intact.²⁴

Many will persist with the resuscitation attempt for longer if the patient is a child. This decision is not generally justified on scientific grounds, for the prognosis after cardiac arrest in children is certainly no better, and probably worse, than in adults. Nevertheless, the decision to persist in the distressing circumstances of the death of a child is quite understandable, and the potential enhanced recruitment of cerebral cells in children after an ischaemic insult is an as yet unknown factor to be reckoned with.

The decision to abandon the resuscitation attempt is made by the team leader, but after consultation with the other team members, who may have valid points to contribute. Ultimately, the decision is based on the clinical judgement that the patient's arrest is unresponsive to ALS. The final conclusion should be reached by the team leader taking all facts and views into consideration and dealing sympathetically, but firmly, with any dissenter.

When considering abandoning the resuscitation attempt, a factor that may need to be taken into account is the possibility of prolonging CPR and other resuscitative measures to enable organ donation to take place. Mechanical chest compressions may be valuable in these circumstances,²⁵ but this has not been studied. The issue of initiating life-prolonging treatment with the sole purpose of harvesting organs is debated by ethicists, and there is variation between the different countries of Europe as to the ethics of this process; at present no consensus exists.

Decision-making by non-physicians

Many cases of out-of-hospital cardiac arrest are attended by emergency medical technicians or paramedics, who face similar dilemmas of when to determine if resuscitation is futile and when it should be abandoned. In general, resuscitation is started in out-of-hospital cardiac arrest unless there is a valid advanced directive to the contrary or it is clear that resuscitation would be futile in cases of a mortal injury, such as decapitation, hemicorporectomy, known prolonged submersion, incineration, rigor mortis, dependent lividity and fetal maceration. In such cases, the non-physician is making a diagnosis of death but is not certifying death (which can be done only by a physician in most countries).

But what of the decision to abandon a resuscitation attempt? Should paramedics trained in ALS be able to declare death after 20 min of asystole in the absence of reversible causes, bearing in mind the very negative results achieved with ongoing CPR during transport? Opinions vary from country to country.²⁶ In some countries it is routine, and it is surely unreasonable to expect paramedics to continue with resuscitation in the precise circumstances where it would be abandoned by a doctor. In making this recommendation, it is essential that times are recorded very accurately and written guidelines provided.²⁷ The answer would appear to lie in superior training and thereafter confidence in those who have been trained to make the decision.

Similar decisions and a diagnosis of death may have to be made by nurses in nursing homes for the aged and terminally ill without a resident doctor. It is to be hoped that a decision on the merits of a resuscitation attempt will have been made previously, and the matter of DNAR should always be addressed for all patients in these establishments.

Mitigating circumstances

Certain circumstances, for example hypothermia at the time of cardiac arrest, will enhance the chances of recovery without neurological damage, and the normal prognostic criteria (such as asystole persisting for more than 20 min) are not applicable. Furthermore, sedative and analgesic drugs may obscure the assessment of the level of consciousness in the patient who has a return of spontaneous circulation.

Withdrawal of treatment after a resuscitation attempt

Prediction of the final neurological outcome in patients remaining comatose after regaining a spontaneous circulation is difficult during the first 3 days (see Section 4g). There are no specific clinical signs that can predict outcome in the first few hours after the return of a spontaneous circulation. Use of therapeutic hypothermia after cardiac arrest makes attempts at predicting neurological outcome even more difficult.

In a very small number of distressing cases, patients regain spontaneous circulation but remain in persistent vegetative state (PVS). Continued existence in this state may not be in the patient's best interest compared with the alternative of

dying. If remaining alive but in PVS is considered not to be in the patient's best interests, consideration must be given to the potential withdrawal of food and fluids to terminate life. These are profoundly difficult decisions, but generally there is agreement between relatives and the doctors and nurses on the correct course of action. In these cases, decisions can often be made without the need for legal intervention. Difficulties arise if there is a disagreement between the doctors and nurses and the relatives, or between the relatives. In Europe, although there also may be extreme views, it seems that the majority are content to leave the decision to the family and physicians in private.

Family presence during resuscitation

The concept of a family member being present during the resuscitation process was introduced in the 1980s²⁸ and has become accepted practice in many European countries.^{29–38} Many relatives would like to be present during resuscitation attempts and, of those who have had this experience, over 90% would wish to do it again.³³ Most parents would wish to be with their child at this time.³⁹

Relatives have considered several benefits from being permitted to be present during a resuscitation attempt, including

- help in coming to terms with the reality of death and easing the bereavement process;
- being able to communicate with, and touch, their loved one in their final moments while they were still warm. Many feel that their loved one appreciated their presence at that moment, and this may be quite possible if consciousness returns during effective CPR (as has been recorded particularly with mechanical CPR on occasions);
- feeling that they had been present during the final moments and that they had been a support to their loved one when needed;
- feeling that they had been there to see that everything that could be done, was done.

Several measures are required to ensure that the experience of the relative is the best under the circumstances.

- The resuscitation should be seen to be conducted competently, under good team leadership, with an open and welcoming attitude to relatives.
- Brief the relatives, in terms that they can understand, before entering; and ensure that continual support is provided by a member of staff (usually a nurse) trained in this subject. Ensure

that relatives understand that the choice to be present is entirely theirs, and do not provoke feelings of guilt, whatever their decision.

- Make the relatives aware of the procedures they are likely to see (e.g., tracheal intubation, insertion of central venous catheters) and the patient's response (e.g., convulsive movements after defibrillation). Emphasise the importance of not interfering with any procedures and explain clearly the dangers of doing so.
- In the majority, of cases it will be necessary to explain that the patient has not responded to the resuscitation attempt and that the attempt has to be abandoned. This decision should be made by the team leader, involving the members of the team. Explain to the relatives that there may be a brief interval while equipment is removed, and that then they will be able to return to be with their loved one at their leisure, alone or supported, as they wish. Certain tubes and cannulae may have to be left in place for medicolegal reasons.
- Finally, there should be an opportunity for the relative to reflect, ask questions about the cause and the process, and be given advice about the procedure for registering the death and the support services available.

In the event of an out-of-hospital arrest, the relatives may already be present, and possibly performing basic life support (BLS). Offer them the option to stay; they may appreciate the opportunity to help and travel in the ambulance to hospital. If death is pronounced at the scene, offer the relatives the help and support of their family doctor or community nurse and bereavement councillor.

For resuscitation staff, both in and out hospital, it is worth offering training in the matter of relatives being present.⁴⁰

With increasing experience of family presence during resuscitation attempts, it is clear that problems rarely, if ever, arise. In the majority of instances, relatives come in and stay for just a few minutes and then leave, satisfied that they have taken the opportunity to be there to support their loved one and say goodbye as they would have wished. Ten years ago most staff would not have countenanced the presence of relatives during resuscitation, but a recent survey has shown an increasingly open attitude and appreciation of the autonomy of both patient and relatives.¹ Perhaps this is related to a generally more permissive and less autocratic attitude. International cultural and social variations still exist, and must be understood and appreciated with sensitivity.

Training and research on the recently dead

Another matter that has raised considerable debate is the ethics, and in some cases the legality, of undertaking training and/or research on the recently dead.

Training

The management of resuscitation can be taught using scenarios with manikins and modern simulators, but training in certain skills required during resuscitation is notoriously difficult. External chest compressions and, to an extent, expired air ventilation and insertion of oropharyngeal and nasopharyngeal airways can be taught using manikins; but despite technological advances in manikins and simulators, many other skills that are needed on a regular basis during resuscitation can be acquired satisfactorily only through practice on humans, dead or alive. These other skills include, for example, central and peripheral venous access, arterial puncture and cannulation, venous cut-down, bag-mask ventilation, tracheal intubation, cricothyroidotomy, needle thoracostomy, chest drainage and open-chest cardiac massage. Some of these skills may be practised during routine clinical work, mostly involving anaesthesia, and to a lesser degree surgery; but others such as cricothyroidotomy, needle thoracostomy and open chest cardiac massage cannot, and are needed only in a life-threatening emergency when it is difficult to justify a teaching exercise. In modern day practice, with practitioners being called increasingly to account and patient autonomy prevailing, it is becoming more and more difficult to obtain permission for student practice of skills in the living. Gone are the days when admission to a 'teaching hospital' implied automatic consent for students to practise procedures on patients under supervision as they wished. And yet the public expect, and are entitled to, competent practitioners for generation after generation.

So the question arises as to whether it is ethically and morally appropriate to undertake training and practice on the living or the dead. There is a wide diversity of opinion on this matter.⁴¹ Many, particularly those in the Islamic nations, find the concept of any skills training and practice on the recently dead completely abhorrent because of an innate respect for the dead body. Others will accept the practice of non-invasive procedures that do not leave a mark, such as tracheal intubation; and some are open and frank enough to accept that any procedure may be learned on the dead body with the

justification that the learning of skills is paramount for the well-being of future patients.

One option is to request informed consent for the procedure from the relative of the deceased. However, only some will obtain permission,^{1,40} and many find this very difficult to do in the harrowing circumstances of breaking bad news simultaneously to the recently bereaved. As a result, frequently only non-invasive procedures are practised, on the basis that what is not seen will not cause distress. The days of undertaking any procedure without consent are rapidly coming to an end, and perhaps it is now becoming increasingly necessary to mount a publicity campaign to exhort the living to give permission for training on their dead body through an advance directive, in much the same way as permission for transplant of organs may be given. It may be that an 'opt-out' rather than an 'opt-in' arrangement may be adopted, but this will require changes in the law in most countries. It is advised that healthcare professionals learn local and hospital policies regarding this issue and follow the established policy.

Research

There are important ethical issues relating to undertaking randomized clinical trials for patients in cardiac arrest who cannot give informed consent to participate in research studies. Progress in improving the dismal rates of successful resuscitation will only come through the advancement of science through clinical studies. The utilitarian concept in ethics looks to the greatest good for the greatest number of people. This must be balanced with respect for patient autonomy, according to which patients should not be enrolled in research studies without their informed consent. Over the past decade, legal directives have been introduced into the USA and the European Union^{42,43} that place significant barriers to research on patients during resuscitation without informed consent from the patient or immediate relative.⁴⁴ There are data showing that such regulations deter research progress in resuscitation.⁴⁵ It is indeed possible that these directives may in themselves conflict with the basic human right to good medical treatment as set down in the Helsinki Agreement.¹² Research in resuscitation emanating from the USA has fallen dramatically in the last decade,⁴⁶ and it appears very likely that the European Union will follow suit as the rules bite there.⁴⁷ The US authorities have, to a very limited extent, sought to introduce methods of exemption,⁴² but these are still associated with problems and almost insurmountable difficulties.⁴⁵

Research on the recently dead is likely to encounter similar restrictions unless previous permission is granted as part of an advance directive by the patient, or permission can be given immediately by the relative who is next of kin. Legal ownership of the recently dead is established only in a few countries, but in many countries it is at least tacitly agreed that the body 'belongs' to the relatives (unless there are suspicious circumstances or the cause of death is unknown), and permission for any research must be granted by the next of kin unless there is an advance directive giving consent. Obtaining consent from relatives in the stressful circumstances of immediate bereavement is unenviable and potentially damaging to the relationship between doctor and relative.

Research can still be carried out during post-mortem examination, for instance to study the traumatic damage resulting from the use of specific methods of chest compression, but all body parts must be returned to the patient unless specific permission is obtained from relatives to do otherwise.

Breaking bad news and bereavement counselling

Breaking news of the death of a patient to a relative is an unenviable task. It is a moment that the relative will remember for ever, so it is very important to do it as correctly and sensitively as possible. It also places a considerable stress on the healthcare provider who has this difficult duty. Both may need support in the ensuing hours and days. It is salutatory that the breaking of bad news is seldom taught in medical school or at postgraduate level.¹

Contacting the family in the case of death without the relatives being present

If the relatives are not present when the patient dies, they must be contacted as soon as possible. The caller may not be known to the relative and must take great care to ensure that his or her identity is made quite clear to the relative and, in turn, the caller must make sure of the relationship of the call recipient to the deceased. In many cases it is not stated on the telephone that the patient has actually died, unless the distance and travel time are prolonged (e.g., the relative is in another country). Many find that it is better to say that the patient is seriously and critically ill or injured and that the relatives should come to hospital immediately, so that a full explanation

can be given face to face. It is wise to request that relatives to ask a friend to drive them to hospital, and to state that nothing will be gained by driving at speed. When the relatives arrive they should be greeted right away by a competent and knowledgeable member of staff, and the situation explained immediately. Delays in being told the facts are agonising.

Who should break the bad news to the relative?

Gone are the days when it was acceptable for the patronising senior doctor to delegate the breaking of bad news to a junior assistant. Nowadays, it is generally agreed that it is the duty of the senior doctor or the team leader to talk to the relatives. Nevertheless, it is wise to be accompanied by an experienced nurse who may be a great comfort for the patient (and indeed the doctor).

Where and how should bad news be given?

The environment where bad news is given is vitally important. There should be a room set aside for relatives of the seriously ill that is tastefully and comfortably furnished, with free access to a telephone, television and fresh flowers daily (which may be provided by the florist who runs the flower shop that is in most hospitals in Europe).

There are some basic principles to be followed when breaking bad news, that should be adhered to if grave errors are to be avoided and the relative is not to be discomforted. It is essential to know the facts of the case and to make quite sure to whom you are talking. Body language is vital; always sit at the same level as the patient and relative; do not stand up when they are sitting down. Make sure you are cleanly dressed; wearing blood-stained clothing is not good. Do not give the impression that you are busy and in a hurry. Give the news they are anxious to hear immediately, using the words "dead" or "has died", "I am very sorry to have to tell you that your father/husband/son has died". Do not leave any room for doubt by using such phrases as "passed on" or "left us" or "gone up above".

Discussing the medical details comprehensively at this stage is not helpful; wait until they are asked for. Touching may be appropriate, such as holding hands or placing an arm on the shoulder, but people and customs vary and the doctor needs to be aware of these. Do not be ashamed if you shed a tear yourself. Allow time for the news to be assimilated by the relative. Reactions may vary, including

- relief ("I am so glad his suffering is over," or "He went suddenly—that is what he would have wished");
- anger with the patient ("I told him to stop smoking," or "He was too fat to play squash," or "Look at the mess he has left me in");
- self-guilt ("If only I had not argued with him this morning before he left for work," or "Why did I not tell the doctor he got chest pain?");
- anger with the medical system ("Why did the ambulance take so long?" or "The doctor was far too young and did not know what he/she was doing");
- uncontrollable wailing and crying and anguish;
- complete expressionless catatonia.

It may be useful to reassure the family that they did everything correctly, such as calling for help and getting to the hospital but, in the vast majority of cases, healthcare providers are unable to restart the heart.

Some time may elapse before conversation can resume and, at this stage, ask relatives if they have any questions about the medical condition and the treatment given. It is wise to be completely open and honest about this, but always say "He did not suffer".

In the majority of cases the relative will wish to see the body. It is important that the body and bedclothes are clean and all tubes and cannulae are removed, unless these are needed for post-mortem examination. The image of the body will leave an impression on the relative that will last for ever. A post-mortem examination may be required, and this should be requested with tact and sensitivity, explaining that the procedure will be carried out by a professional pathologist and will help to determine the precise cause of death.

Children

Breaking bad news to children may be perceived to present a special problem, but experience seems to indicate that it is better to be quite open and honest with them, so helping to dispel the nightmarish fantasies that children may concoct about death. It is helpful to contact the school, so that the teachers and fellow pupils can be prepared to receive the child back into the school environment with support and sensitivity.

Closure

In many cases this will be the relative's first experience of death, and help should be offered with the bewildering administration of the official

registration of death, funeral arrangements and socioeconomic support by the hospital or community social worker. Depending on religious beliefs, the hospital padre or priest may have a vital role to play. Whenever possible, family physicians should be informed immediately by telephone or e-mail with the essential details of the case, so that they can give full support to the relatives. A follow-up telephone call to the relative a day or two later from a member of the hospital staff who was involved, offering to be of help and to answer any questions that the relative may have forgotten about at the time, is always appreciated.

Staff debrief

Although many members of staff seem, and often are, little affected by death in the course of their work, this should not be assumed. Their sense of accomplishment and job satisfaction may be affected adversely, and there may be feelings of guilt, inadequacy and failure. This may be particularly apparent in, but not restricted to, very junior members of staff. A team debrief of the event using positive and constructive critique techniques should be conducted and personal bereavement counselling offered to those with a particular need. How this is done will vary with the individual and will range from an informal chat in the pub or cafe (which seems to deal effectively with many cases) to professional counselling. It should be explained that distress after a death at work may be a normal reaction to an abnormal situation.

Conclusions

Resuscitation has given many a new lease of life, to the delight of themselves and their relatives, but has the potential to bring misery to a few. This chapter addresses how that misery can be reduced by not attempting resuscitation in inappropriate circumstances or in cases with a valid advanced directive, and when to discontinue the resuscitation attempt in cases of futility or PVS.

Ethical issues such as training and research on the recently dead, and the presence of family members during the resuscitation attempt, place further burdens on the medical profession but must be dealt with sympathetically, and with an appreciation of growing patient autonomy and human rights throughout the world.

Finally, the breaking of bad news is one of the most difficult tasks to be faced by the medical and nursing professions. It requires time, training, compassion and understanding.

References

1. Baskett PJ, Lim A. The varying ethical attitudes towards resuscitation in Europe. *Resuscitation* 2004;62:267–73.
2. Sprung CL, Cohen SL, Sjøkvist P, et al. End-of-life practices in European intensive care units: the Ethicus Study. *JAMA* 2003;290:790–7.
3. Richter J, Eisemann MR, Bauer B, Kreibeck H, Astrom S. Decision-making in the treatment of elderly people: a cross-cultural comparison between Swedish and German physicians and nurses. *Scand J Caring Sci* 2002;16:149–56.
4. da Costa DE, Ghazal H, Al Khusaiby S. Do not resuscitate orders and ethical decisions in a neonatal intensive care unit in a Muslim community. *Arch Dis Child Fetal Neonatal Ed* 2002;86:F115–9.
5. Ho NK. Decision-making: initiation and withdrawing life support in the asphyxiated infants in developing countries. *Singapore Med J* 2001;42:402–5.
6. Richter J, Eisemann M, Zgonnikova E. Doctors' authoritarianism in end-of-life treatment decisions. A comparison between Russia, Sweden and Germany. *J Med Ethics* 2001;27:186–91.
7. Cuttini M, Nadai M, Kaminski M, et al. End-of-life decisions in neonatal intensive care: physicians' self-reported practices in seven European countries. EURONIC Study Group. *Lancet* 2000;355:2112–8.
8. Konishi E. Nurses' attitudes towards developing a do not resuscitate policy in Japan. *Nurs Ethics* 1998;5:218–27.
9. Muller JH, Desmond B. Ethical dilemmas in a cross-cultural context. A Chinese example. *West J Med* 1992;157:323–7.
10. Edgren E. The ethics of resuscitation; differences between Europe and the USA-Europe should not adopt American guidelines without debate. *Resuscitation* 1992;23:85–9.
11. Beauchamp TL, Childress J, editors. Principles of biomedical ethics. 3rd ed. Oxford: Oxford University Press; 1994.
12. Declaration of Helsinki. Ethical principles for medical research involving human subjects adopted by the 18th WMA General Assembly, Helsinki, Finland, June 1964 and amended at the 29th, 35th, 41st, 48th, and 52nd WMA Assemblies. Geneva, 1964.
13. Aasland OG, Forde R, Steen PA. Medical end-of-life decisions in Norway. *Resuscitation* 2003;57:312–3.
14. Danciu SC, Klein L, Hosseini MM, Ibrahim L, Coyle BW, Kehoe RF. A predictive model for survival after in-hospital cardiopulmonary arrest. *Resuscitation* 2004;62:35–42.
15. Dautzenberg PL, Broekman TC, Hooyer C, Schonwetter RS, Duursma SA. Review: patient-related predictors of cardiopulmonary resuscitation of hospitalized patients. *Age Ageing* 1993;22:464–75.
16. Haukoos JS, Lewis RJ, Niemann JT. Prediction rules for estimating neurologic outcome following out-of-hospital cardiac arrest. *Resuscitation* 2004;63:145–55.
17. Herlitz J, Engdahl J, Svensson L, Young M, Angquist KA, Holmberg S. Can we define patients with no chance of survival after out-of-hospital cardiac arrest? *Heart* 2004;90:1114–8.
18. Herlitz J, Engdahl J, Svensson L, Angquist KA, Young M, Holmberg S. Factors associated with an increased chance of survival among patients suffering from an out-of-hospital cardiac arrest in a national perspective in Sweden. *Am Heart J* 2005;149:61–6.
19. Ebell MH. Prearrest predictors of survival following in-hospital cardiopulmonary resuscitation: a meta-analysis. *J Fam Pract* 1992;34:551–8.
20. Hillman K, Parr M, Flabouris A, Bishop G, Stewart A. Redefining in-hospital resuscitation: the concept of the medical emergency team. *Resuscitation* 2001;48:105–10.

21. The MERIT study investigators. Introduction of the medical emergency team (MET) system: a cluster-randomised controlled trial. *Lancet* 2005;365:2091–7.
22. Sovik O, Naess AC. Incidence and content of written guidelines for “do not resuscitate” orders. Survey at six different somatic hospitals in Oslo. *Tidsskr Nor Laegeforen* 1997;117:4206–9.
23. Bonnin MJ, Pepe PE, Kimball KT, Clark Jr PS. Distinct criteria for termination of resuscitation in the out-of-hospital setting. *JAMA* 1993;270:1457–62.
24. Kellermann AL, Hackman BB, Somes G. Predicting the outcome of unsuccessful prehospital advanced cardiac life support. *JAMA* 1993;270:1433–6.
25. Steen S, Liao Q, Pierre L, Paskevicius A, Sjoberg T. Evaluation of LUCAS, a new device for automatic mechanical compression and active decompression resuscitation. *Resuscitation* 2002;55:285–99.
26. Naess A, Steen E, Steen P. Ethics in treatment decisions during out-of-hospital resuscitation. *Resuscitation* 1997;35:245–56.
27. Joint Royal Colleges Ambulance Liaison Committee. Newsletter 1996 and 2001. Royal College of Physicians: London.
28. Doyle CJ, Post H, Burney RE, Maino J, Keefe M, Rhee KJ. Family participation during resuscitation: an option. *Ann Emerg Med* 1987;16:673–5.
29. Adams S, Whitlock M, Higgs R, Bloomfield P, Baskett PJ. Should relatives be allowed to watch resuscitation? *BMJ* 1994;308:1687–92.
30. Hanson C, Strawser D. Family presence during cardiopulmonary resuscitation: Foote Hospital emergency department’s nine-year perspective. *J Emerg Nurs* 1992;18:104–6.
31. Cooke MW. I desperately needed to see my son. *BMJ* 1991;302:1023.
32. Gregory CM. I should have been with Lisa as she died. *Accid Emerg Nurs* 1995;3:136–8.
33. Boie ET, Moore GP, Brummett C, Nelson DR. Do parents want to be present during invasive procedures performed on their children in the emergency department? A survey of 400 parents. *Ann Emerg Med* 1999;34:70–4.
34. Boudreaux ED, Francis JL, Loyacano T. Family presence during invasive procedures and resuscitations in the emergency department: a critical review and suggestions for future research. *Ann Emerg Med* 2002;40:193–205.
35. Martin J. Rethinking traditional thoughts. *J Emerg Nurs* 1991;17:67–8.
36. Robinson SM, Mackenzie-Ross S, Campbell Hewson GL, Eggleston CV, Prevost AT. Psychological effect of witnessed resuscitation on bereaved relatives. *Lancet* 1998;352:614–7 [comment].
37. Baskett PJF. The ethics of resuscitation. In: Colquhoun MC, Handley AJ, Evans TR, editors. *The ABC of resuscitation*. 5th ed. London: BMJ Publishing Group; 2004.
38. Azoulay E, Sprung CL. Family-physician interactions in the intensive care unit. *Crit Care Med* 2004;32:2323–8.
39. Bouchner H, Vinci R, Waring C. Pediatric procedures: do parents want to watch? *Pediatrics* 1989;84:907–9.
40. Resuscitation Council (UK) Project Team. Should relatives witness resuscitation? London, UK: Resuscitation Council; 1996.
41. Morag RM, DeSouza S, Steen PA, et al. Performing procedures on the newly deceased for teaching purposes: what if we were to ask? *Arch Intern Med* 2005;165:92–6.
42. US Department of Health and Human Services. Protection of human subjects: informed consent and waiver of informed consent requirements in certain emergency circumstances. In: 61 Federal Register 51528 (1996) codified at CFR #50.24 and #46.408; 1996.
43. Fontaine N, Rosengren B. Directive/20/EC of the European Parliament and Council of 4th April 2001 on the approximation of the laws, regulations and administrative provisions of the Member States relating to the implementation of good clinical practice in the conduct of trials on medical products for human use. *Off J Eur Commun* 2001;121:34–44.
44. Lemaire F, Bion J, Blanco J, et al. The European Union Directive on Clinical Research: present status of implementation in EU member states’ legislations with regard to the incompetent patient. *Intensive Care Med* 2005;31:476–9.
45. Nichol G, Huszti E, Rokosh J, Dumbrell A, McGowan J, Becker L. Impact of informed consent requirements on cardiac arrest research in the United States: exception from consent or from research? *Resuscitation* 2004;62:3–23.
46. Mosesso Jr VN, Brown LH, Greene HL, et al. Conducting research using the emergency exception from informed consent: the public access defibrillation (PAD) trial experience. *Resuscitation* 2004;61:29–36.
47. Sterz F, Singer EA, Bottiger B, et al. A serious threat to evidence based resuscitation within the European Union. *Resuscitation* 2002;53:237–8.