Practical Resuscitation for Healthcare Professionals

SECOND EDITION

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Practical Resuscitation for Healthcare Professionals
Dedications

To our families for their unyielding love and support and to those personally and professionally known, who have inspired our passion to improve recognition of and response to resuscitation emergencies.
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Foreword

In the UK in 2005, heart disease was the leading cause of death in males and females, accounting for one in five and one in six deaths, respectively, and at an average age of 68 for men and 73 for women. The incidence of out-of-hospital cardiac arrest in England is approximately 113/100 000 population per annum. The only effective management of a cardiac arrest in any setting is the swift response of a knowledgeable and well-rehearsed team.

Clearly, then, the development and maintenance of effective resuscitation skills is essential in all health care workers working in acute settings. Despite this unarguable fact there is a wealth of evidence to suggest that both basic and advanced cardiopulmonary resuscitation knowledge and skills are both poorly acquired and poorly retained (even over intervals of a few months) regardless of the grade or profession of health care practitioners. It is worth remembering that the main responsibility for ensuring competence lies with each individual registered practitioner.

*Practical resuscitation for healthcare professionals* provides practitioners with a valuable aid to acquire and maintain the underpinning knowledge necessary for the safe and effective performance of the full gamut of resuscitation skills. It has a concise and clear writing style which means that it can be read from cover to cover in a matter of a few hours, but its structured chapters also support its use as a reference or revision text for the more experienced professional.

It is written and edited by a small team of educators and researchers with experience and broad knowledge of their subject matter. Their evidence-based approach to the topic is underpinned by a large number of references which permit readers to further explore any area of particular interest. Each chapter is presented in a consistent manner, including clear aims and learning outcomes and ending with a review of key learning points, and a case study to allow the reader to self-test their knowledge. Appropriate guidelines are cited and reproduced and the use of photographs, algorithms and key actions presented as bullet points all add to the clarity and readability of the text. The editors have wisely included separate chapters on areas of resuscitation known to be of particular concern to non-specialist healthcare professionals, including ethics, paediatrics, the management of reversible causes of cardiac arrest and the management of cardiac arrest in special circumstances.
This book will be of considerable value to all healthcare providers, regardless of their level of seniority and experience and of their discipline and professional group. More importantly, if studied thoroughly it has the potential to be of considerably greater value to their patients.

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Preface

This second edition reflects changes in resuscitation guidelines published in 2005. The field of resuscitation is an area where theory and practice continue to develop at a very rapid pace. Advances in technology and an increase in the number of published quality research papers mean that guidelines are revised periodically so that standards in cardiopulmonary resuscitation can reflect the most current thinking and application of technical skills. The increased patient dependency, now common within many hospital and community settings, has further emphasised the need for healthcare professionals to become competent in basic life support and, increasingly, immediate life support skills.

The premise behind this book is that healthcare professionals starting their career as practitioners need to be equipped with a blend of theoretical and practice-based skills in order to be effective as first responders, resuscitation team members or leaders of the arrest situation. This textbook therefore approaches knowledge and skill development in resuscitation from a practical viewpoint and includes the underpinning current evidence base to support resuscitation skill delivery.

The book includes key chapters presenting the main resuscitation algorithms and this second edition includes a new chapter on Paediatric Life Support (Chapter 8). All the updated chapters present the current evidence base for practice presented in a format that we hope will be accessible to the novice and informative for those staff more experienced in resuscitation.

There is no doubt that the first experience of participating in an arrest is terrifying, whatever the role or activity adopted. We expect the reader will become more confident and proficient in assessing, responding to and reviewing resuscitation situations. Moreover, we hope that this textbook will stimulate greater interest and enthusiasm in the resuscitation field.

Pam Moule and John W. Albarran
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Section 1

Introduction and Professional Issues

- Chapter 1 – Resuscitation Policy and Educational Developments
- Chapter 2 – Professional, Ethical and Legal Issues
INTRODUCTION
Resuscitation is relatively new to the world of evidence-based practice, being founded on a limited, but increasing body of scientific evidence as the basis for current best practice. International collaboration and consensus has also been instrumental to the development of resuscitation guidelines that seek to standardise the management approach of cardiac arrests and other life-threatening conditions for both adults and children. This chapter explores the current policy and trends in resuscitation education and training. The chapter concludes with a guide to the book's contents and its use.

AIMS
This chapter outlines the current policy position and reviews the importance of educational preparation in developing knowledge and skills in resuscitation. In addition, it intends to prepare readers to use the remainder of the book.

LEARNING OUTCOMES
By the end of the chapter, the reader will be able to:
- identify the current policy informing resuscitation guidelines;
- examine competency debates in the field and current trends in educational preparation for resuscitation;
- demonstrate how to use this book.

CURRENT POLICY
Following the introduction of modern cardiopulmonary resuscitation (CPR) nearly 50 years ago (American Heart Association (AHA) and International Liaison Committee on Resuscitation (ILCOR) 2000a), guidelines for the delivery of basic life support (BLS) and advanced life support (ALS) have been through a period of evolutionary change. Guidelines produced in 2000 (AHA and ILCOR 2000b) were the culmination of wide international collaboration. They aimed to achieve internationally accepted, comprehensive, evidence-based guides for resuscitation practice, and included paediatric and adult BLS and ALS algorithms.

Wider acceptance of standardised, evidence-based approaches to resuscitation has aimed to reduce and simplify the number of skills required to enable the lay public and health professionals to respond promptly and effectively. Indeed,
Resuscitation Policy and Educational Developments

resuscitation teams are more likely to function with some coherency and expertise, as elements of inconsistency in practice are removed.

As with previous recommendations and policy statements, the introduction of the 2005 Resuscitation guidelines sought to reflect a consensus of science and emphasised the need for continued updating and revision (Nolan 2006). Through standardisation, it has been possible to simplify procedures, supporting ease of skill and knowledge development and retention. This simplification has been afforded through the critical appraisal of available scientific evidence, a base that is set to continue to inform the ongoing development of resuscitation care as new scientific findings emerge. To achieve consensus, all resuscitation councils and experts employed a systematic approach to developing the evidence base.

The current guidelines are based on the 2005 International Consensus on Cardiopulmonary Resuscitation and Emergency Cardiovascular Care Science with Treatment, Recommendations (CoSTR). The European Resuscitation Council (ERC) Guidelines (2005) are derived from the CoSTR document but reflect the European context and practice. The ERC Executive Committee in recommending guidelines anticipates local, regional and national adaptations that reflect the availability of drugs, equipment and human resources.

Demographics on in-hospital and out-of-hospital cardiac arrests suggest the continuing need for professionals and members of the lay public to engage with resuscitation. To enhance the best outcomes of resuscitation, those responding to cardiac arrests must be in possession of the necessary knowledge and skills to perform timely, safe and effective resuscitation.

Challenges in developing competent responders

BLS is a formalised component of the competency framework for registered professionals. This suggests an assumed need for competency in BLS as part of the professional’s repertoire of skills.

Competency-based curricula identify the knowledge and skills that a professional is expected to possess on qualification or completion of course, for members of the public. It reflects a current political ideology that attempts to remove the potential risk to society from any nurse or other professional delivering CPR. The current preoccupation with risk emanates from ambivalence about the expertise of professionals in performing their duties. This concern is fuelled by recent evidence of professional incompetence and malpractice presented in the media and has supported a series of measures to increase professional scrutiny and accountability, which includes competency development.

Knowledge and skill acquisition and retention are requirements of competency development and maintenance. Resuscitation teaching and ongoing practice development, requiring sustained educational commitment of practitioners to maintain competence, supports competency development (Baskett et al. 2005).

There are many challenges in maintaining competency for individuals and employing organisations. Despite a long tradition in CPR training, there remain a number of unresolved issues with achieving competency and retention of skills. Studies suggest that course delivery is not always effective in the promotion of CPR skills (Perkins et al. 2008, Verplancke et al. 2008). The barriers to skill
acquisition are also attributed to long training intervals and lack of feedback on technique (Abella et al. 2007).

Consequently, the Resuscitation Councils and others have engaged in the development and evaluation of training curricula to support recommendations of educational programmes which optimise the acquisition and retention of knowledge and skills by a range of providers (Beckers et al. 2005, Harve & Silvfast 2004, Hoke et al. 2006, Priori et al. 2004). Most approaches adopt the principles of adult education and learning to underpin training. These include small group facilitation with interactive discussion and hands-on practice (Baskett 2004). The ratio of instructors is recommended as 1:3 to 1:6. It is also suggested that core knowledge should be made available prior to practice and assessment of skills (Baskett et al. 2005). A number of delivery modes exist, including video instruction, PowerPoint presentations, CD-ROMs and online learning materials (Moule & Albarran 2002). As training aims to develop and sustain competence, it is recommended that a test of core knowledge should be included with an assessment of practical skills and scenario management (Baskett et al. 2005). A number of sophisticated simulation and virtual reality techniques can support this (Chamberlain & Hazinski 2003). The use of simulation and assessment through objective structured clinical examinations (OSCEs) allows the rehearsal of resuscitation skills amongst interprofessional groups and provides opportunities for feedback and learning (Moule et al. 2008). Peer assessment can form part of the learning process, being used successfully in the development of BLS skills in undergraduate training (Bucknall et al. 2008).

Resuscitation skill development should be supported by appropriately trained professionals who have complete relevant and specific preparation (Baskett et al. 2005). Instructors should adopt a supportive role in delivery and testing to ensure competence.

HOW TO USE THIS BOOK
This book is underpinned by a philosophy that embraces the wider view of resuscitation presented in the above discussion. The text emphasises the importance of recognising and responding to critical care needs within both the community and hospital settings. It hopes to support healthcare workers in developing the knowledge and skills required to operate effectively in an environment that requires them to both recognise and respond to deteriorating conditions.

Structure and content
This book contains 17 chapters, written by experts in their area, that inform and develop through the provision of evidence-based guidance, supporting questioning and enhancement of clinical competencies in practice delivery. Every chapter is presented in an accessible manner, using a structured format:

- **Introduction** – is an overview of the chapter content.
- **Aims** – guide the reader to the key aims of the chapter, enabling selective and appropriate reading.
- **Learning outcomes** – identify the key learning for the reader.
Content (guidelines, evidence-based literature, steps in the skill) – provides the reader with the knowledge development and evidence base, stressing practice skill delivery.

Review of key learning points – provides a useful and concise resume of key learning for the reader.

Case studies – offer an opportunity for readers to test their understanding and development of the key issues presented in the chapter.

Reference lists – provide the reader with an opportunity to further explore reference material and develop wider reading.

Practical use
While the book can be consumed in its entirety, it supports selective use in the practice setting, to facilitate effective recognition and response to cardiac arrest events. The structure and content of the book should be used as a guide to identifying specific learning opportunities that can be matched to individual learning needs. In this way, maximum benefit can be gained from the book.

The evidence base presented will support care delivery, whilst key skill delivery, presented through a step-by-step approach, should enhance confidence and competence development. Review of learning within chapters facilitates readers to be aware of the fundamental practice principles.

Where presented, the case study examples provide scope to test individual understanding of the evidence base and steps in skill delivery. Learning can be further enhanced through exploration of the reference material provided.

CONCLUSIONS
This chapter considers the current policy context and educational developments in resuscitation. As a result of ongoing scientific advances in resuscitation, health professionals must remain updated to ensure that they are competent in both preventing and managing cardiac arrests. There also remain a number of challenges to optimising standardised skill acquisition and maintenance in evolving discipline. Innovative, student-orientated and interactive modes of learning that emphasise feedback on performance are one way forward. In addition, opportunities for skill rehearsal through simulation or virtual environments can assist with this endeavour.

This textbook aims to present a comprehensive of the current evidence base of resuscitation in a practical and accessible way that will enable readers to further develop their expertise in this area of professional practice.

REFERENCES


INTRODUCTION
International collaboration has supported the development of resuscitation guidelines that seek to provide a consensus view for practice. This chapter outlines major ethical, professional and legal issues surrounding resuscitation and presents roles and responsibilities of the ‘first responder’ in an emergency arrest situation.

AIMS
This chapter introduces professional issues in resuscitation and gives an overview of the roles of healthcare professionals in a resuscitation attempt.

LEARNING OUTCOMES
By the end of the chapter, the reader will be able to:

- discuss the ethical and legal implications of do not attempt resuscitation orders;
- explore the debates related to the presence of family members during resuscitation;
- examine the ethical dilemmas associated with deciding when to discontinue resuscitation attempts;
- appreciate the different roles of cardiac arrest team members and how to work with the team.

‘DO NOT ATTEMPT RESUSCITATION’ ORDERS
In 2007, the Royal College of Nursing (RCN), the Resuscitation Council (UK) and the British Medical Association (BMA) jointly published Decisions Relating to Cardiopulmonary Resuscitation. This document is freely available via the internet (Resuscitation Council UK 2007), and should be regarded as required reading for anybody involved in resuscitation. The decision-making framework from this document is reprinted here as Figure 2.1. Decisions not to attempt resuscitation (DNAR) should ideally be agreed within the healthcare team, and where appropriate, with the patient or with his or her representative. The overall responsibility rests with the senior clinician, and in some cases this might be a senior nurse. Trusts are required to have a resuscitation policy, and local DNAR arrangements, including the identity of the senior clinician should be clarified within it.
Is cardiac or respiratory arrest a clear possibility in the circumstances of the patient?

If there is no reason to believe that the patient is likely to have a cardiac or respiratory arrest it is not necessary to initiate discussion with the patient (or those close to patients who lack capacity) about CPR. If, however, the patient wishes to discuss CPR this should be respected.

Is there a realistic chance that CPR could be successful?

When a decision not to attempt CPR is made on these clear clinical grounds, it is not appropriate to ask the patient’s wishes about CPR, but careful consideration should be given as to whether to inform the patient of the DNAR decision (see section 6).

Where the patient lacks capacity and has a welfare attorney or court-appointed deputy or guardian, this person should be informed of the decision not to attempt CPR and the reasons for it as part of the ongoing discussion about the patient’s care (see section 6).

If a second opinion is requested, this request should be respected, whenever possible.

Does the patient lack capacity and have an advance decision refusing CPR or a welfare attorney with relevant authority?

If a patient has made an advance decision refusing CPR, and the criteria for applicability and validity are met, this must be respected. If an attorney, deputy or guardian has been appointed they should be consulted (see sections 8 and 9).

Are the potential risks and burdens of CPR considered to be greater than the likely benefits of CPR?

When there is only a very small chance of success, and there are questions about whether the burdens outweigh the benefits of attempting CPR, the involvement of the patient (or, if the patient lacks mental capacity, those close to the patient) in making the decision is crucial. When the patient is a child or young person, those with parental responsibility should be involved in the decision where appropriate. When adult patients have mental capacity their own view should guide decision-making (see section 7).

CPR should be attempted unless the patient has capacity and states that they would not want CPR attempted.

- Decisions about CPR are sensitive and complex and should be undertaken by experienced members of the healthcare team and documented carefully
- Decisions should be reviewed regularly and when circumstances change
- Advice should be sought if there is uncertainty.

Figure 2.1 Decision-making framework. (Cited in ‘Decisions Relating to Cardiopulmonary Resuscitation’ (2007; 22). Reproduced with permission of the British Medical Association.)
In general, there is a presumption that unless there is a properly formulated DNAR order, cardiopulmonary resuscitation (CPR) should be initiated. Deliberately ineffective resuscitation attempts, so-called slow codes, are considered unethical (Kelly 2007). It is recognised that there may be circumstances where there is no such order in place for a patient for whom resuscitation is clearly not indicated. A junior nurse discovering a collapsed patient in this circumstance would face a difficult decision (Jones 2007). The guidance (Resuscitation Council UK 2007) suggests that a decision not to start CPR in these circumstances should be supported by their senior colleagues and managers. The correctness of the decision turns on the circumstances, and it must be remembered that professional accountability operates here as much as in all over professional decision-making.

In many circumstances, the decision not to attempt CPR is firmly based on the clinical view that it would not be successful, and so should not be offered or attempted. In these cases, it is most likely to be inappropriate to initiate discussion with the patient. In a few cases, patients may request resuscitation even though the team believes that the attempt would be unsuccessful. In this case, there should be sensitive discussion about the likely progress of the disease and the resuscitation attempt. A second opinion may be necessary. The black and white legal position is that clinical staff are under no obligation to provide treatment which they believe is ineffective even if the patient requests it. However, this bald statement of the legal position does not capture the compassion needed to make a decision in these circumstances and communicate it sensitively to the patient whose insistence on resuscitation may reveal inadequate understanding of the prognosis.

In other cases, resuscitation may be successful in that it restores circulation, though this in itself cannot be the sole criterion of a successful resuscitation attempt. The attempt itself is an invasive procedure, and can result in permanent brain damage or other unwanted side effects. The weight given to these side effects can really be assessed only by patients and those who know them. A DNAR decision here weighs the likelihood of benefit and burden, and will include careful consideration of at least the following (Resuscitation Council UK 2007):

- the likely clinical outcome, including the likelihood of successfully restarting the patient’s heart and breathing for a sustained period and the level of recovery that can realistically be expected after successful CPR;
- the patient’s own ascertainable wishes, including information about previously expressed views, feelings, beliefs and values;
- the patient’s human rights, including the right to life and the right to be free of degrading treatment (Wood & Wainright 2007);
- the likelihood of the patient experiencing severe unmanageable pain or suffering;
- the level of awareness the patient has of his or her existence and surroundings.

**Patients who decline resuscitation**

It is firmly established in law and ethics that a capable patient can refuse any treatment for any reason and any health professional who disregards these wishes is vulnerable to legal challenge. This remains the case where refusal of treatment is
likely to result in the death of the patient where the decision might be considered unwise, even foolhardy by the healthcare team and relatives. Difficulties can arise where there is doubt about whether a patient has the capacity to refuse treatment, and in order to clarify and consolidate existing common law, the Mental Capacity Act (2005) came into force in 2007.

**The Mental Capacity Act (2005)**
The Mental Capacity Act provides the legal framework for making decisions on behalf of those unable to make them for themselves. Its importance in resuscitation and healthcare, in general, would be difficult to overstate. The Nursing and Midwifery Council’s code (2008a; 4) specifically requires that nurses and midwives be aware ‘of the legislation regarding mental capacity, ensuring that people who lack capacity remain at the centre of decision making’. The Act largely codifies into statute existing positions established under common law. Readily available and comprehensive guides are available online from the Office of the Public Guardian (2007). The Act affects resuscitation in the following important ways.

**Decision-making for patients who lack capacity**
It is important to understand that a patient is regarded as incapable only for a specific decision at a specific time. A patient’s capacity can be restricted for a number of reasons including dementia, infection and hypoxia. Where patients lack the capacity to make an informed decision, the duty for making a decision in the patient’s best interest normally falls not to the family but to the medical team. In some cases, a patient may apparently decline treatment and since the decision to respect the refusal depends hugely on whether the patient is capable of making the decision, there must be a clear process of arriving at a judgement of whether the patient is capable or not. A person is unable to make a decision if he or she has an impairment or a disturbance in the functioning of his or her mind or brain and he or she cannot (Department of Constitutional Affairs 2007; 45):

1. understand information about the decision to be made;
2. retain that information in his or her mind;
3. use or weigh that information as part of the decision-making process; or
4. communicate his or her decision (by talking, using sign language or any other means).

**Advance decisions and lasting power of attorney**
The Mental Capacity Act sets out conditions which need to be fulfilled before an advance decision is legally binding. This applies to England and Wales, though the common law of Scotland and Northern Ireland is also likely to support advance decision-making (Resuscitation Council UK 2007). Advance decisions enable patients who have capacity to refuse treatment in the future, when the capacity is lost. They do not have to take a particular form but many charities and voluntary organisations have produced their own versions. But where the decision refuses life-sustaining treatment (including resuscitation), the decision must be in writing, be witnessed, and specifically state that the decision applies even if
life is at risk. The person making the advanced decision is responsible for informing the healthcare team of its existence and provisions. It would be wise, though it is not compulsory, for the patients to discuss their wishes with the relatives and their healthcare professionals. Healthcare professionals will be protected from liability if they (Department of Constitutional Affairs 2007; 158):

- stop or withhold treatment because they reasonably believe that an advance decision exists, and that it is valid and applicable;
- treat a person because, having taken all practical and appropriate steps to find out if the person has made an advance decision to refuse treatment, they do not know or are not satisfied that a valid and applicable advance decision exists.

Patients can also give another person the authority to make decisions for them when they are unable to make them for themselves. This is known as having lasting power of attorney (LPA). LPAs must be properly documented and registered with the public guardian, and are unable to make decisions relating to life-sustaining treatment unless the document specifically relates to it.

**Making and communicating the decision**

When a DNAR decision has been made, it is vitally important that it is communicated to all in the healthcare team in the following ways.

- The entry in the medical notes should be clear and unambiguous, with no use of abbreviations.
- The date and the reason for the decision should be clear.
- There should be details of who has been consulted.
- The signature should be easily identifiable.
- A separate entry should also be made in the nursing notes.
- The decision should be reviewed regularly and can be rescinded at any time.

**WHEN TO STOP A RESUSCITATION ATTEMPT**

The decision-making will depend on a number of factors:

- the environment of the cardiac arrest and access to emergency medical services;
- the interval between cardiac arrest and commencement of basic life support (BLS);
- the interval between BLS and advanced life support (ALS);
- evidence of cardiac death (asystole);
- potential prognosis and co-morbidity (Ambery et al. 2000);
- age of the casualty, but this is a controversial issue (Larkin 2002);
- temperature: hypothermia offers a degree of protection and efforts, prolonged if necessary, should be made to warm the patient (see Chapter 15);
- drug intake prior to cardiac arrest;
- remediable precipitating factors.

Resuscitation should continue if ventricular fibrillation persists and should cease only if asystole is present for more than 20 minutes and in the absence of a reversible cause (Resuscitation Council UK 2006). It has been recommended that patients should be monitored for 10 minutes after resuscitation efforts have
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stopped (Maleck et al. 1998). The decision should be made by the team leader in consultation with the team.

HAVING FAMILY MEMBERS PRESENT DURING CARDIOPULMONARY RESUSCITATION

The decision whether family members should be permitted to witness the resuscitation of a loved one poses a number of practical, ethical and professional dilemmas for healthcare staff. In recent years, however, the growth of research, public opinion (Mazer et al. 2006, Ong et al. 2007) and professional expectations have collectively shifted attitudes and eroded some of the perceived barriers.

Critics have been challenged to accept the idea of allowing family members to attend the resuscitation of a loved one on a number of grounds; these include:

- the expansion of the family-centred care movement;
- the growth of the hospice movement;
- public demand for greater openness and transparency;
- the growth of research into family members and healthcare professional perspectives;
- impact of international resuscitation and critical care guidelines supporting the development and implementation of family-friendly policies in this area (Fulbrook et al. 2007).

Historically, the pioneering work at the Foote Hospital, Michigan, is credited for promoting worldwide interest in family witnessed resuscitation (FWR; Doyle et al. 1987). In this study, relatives who were present reported that their adjustment to the patient’s death was made easier by being present; 64% (n = 30) believed that their presence was beneficial to the patient and 94% (n = 44) indicated that they would attend again.

Excluding family members

Since its introduction, many reasons have been advanced for excluding family members from the resuscitation. Generally, these have been based on cultural factors, speculation and the paternalistic attitudes of healthcare professionals rather than evidence from research (Albarran & Stafford 1999, Baskett & Lim 2004).

The most commonly cited objections include:

- possible family member interference with resuscitation team efforts;
- the immediate and long-term psychological consequences of family presence;
- family member’s presence can have an adverse impact on staff performance;
- allowing family members to be present will lead to breaches of patient confidentiality;
- lack of adequate staff resources to supervise and guide family members;
- fears that staff performance will be challenged leading to a rise in medicolegal reprisals.

Arguments for FWR

Because of conflicting attitudes, the practice of allowing family members to observe the resuscitation of a loved one has been slow to evolve. However, while
families who unexpectedly are faced with a situation involving the resuscitation and possible death of a loved one entrust the care of the patient to healthcare professionals they nevertheless wish to be present because of:

- a sense of duty and obligation;
- a desire to remain connected with the patient;
- a need to understand and be reassured about their loved one’s health and that they are being cared for (Eichhorn et al. 2001, Weslien et al. 2006).

Being present has been reported to be beneficial to family members by enabling them to:

- observe that the resuscitation team did everything that could be done;
- reduce any misconceptions and misunderstandings of life-saving procedures;
- understand the severity of a loved one’s condition and prognosis;
- remain emotionally connected to the patient and a life of shared memories;
- provide comfort and support to their loved ones;
- advise team about the patient’s interests and participate in decisions affecting their loved ones;
- feel that, in the case of an unsuccessful resuscitation, they shared the last moments with their loved ones, accept the death and begin the process of closure and grief;

Additionally, family members who attend the resuscitation of a loved one stay focused on the patient, recognise when it is inappropriate to remain at the bedside and are unrepentant over their decisions to be present (Holzhauser et al. 2006, Robinson et al. 1998). Patients and families also appear to recognise that their presence must be balanced with enabling the resuscitation team to perform their duties uninterrupted and healthcare staff should be allowed to make discretionary judgements in the interest of patients and relatives (Albarran et al. 2007, Weslien et al. 2006). Breaches of confidentiality are less of a concern for patients; indeed, many accept that this may be necessary in facilitating family members to make decisions about further treatment options (Albarran et al. 2007).

**Patient perceptions of personal benefit**

Experiences of patients who have undergone resuscitation and survived or underwent invasive procedures are scarce. Patients generally agree that relatives should always be given the option to be present and it is important because families are able to:

- reduce a patient’s feelings of isolation, insecurity and fear;
- provide emotional comfort beyond the scope of healthcare professionals;
- maintain family bonds;
- humanise the environment enabling the patient to be viewed in a social context (Albarran et al. 2007, Eichhorn et al. 2001).