ABC of Resuscitation

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THE ETHICS OF RESUSCITATION

Present day knowledge, skill, pharmacy, and technology have proved effective in prolonging useful life for many patients. Countless thousands have good reason to be thankful for cardiopulmonary resuscitation, and the numbers rise daily. Yet, in the wake of this advance, there is a small but important shadow of bizarre and distressing problems. These problems must be freely and openly addressed if we are to avoid criticism from others and from our own consciences.

Resuscitation attempts in the mortally ill do not enhance the dignity and serenity that we hope for our relatives and ourselves when we die. All too often resuscitation is begun in patients already destined for life as cardiac or respiratory cripples or who are suffering the terminal misery of untreatable cancer. From time to time, but fortunately rarely, resuscitation efforts may help to create the ultimate tragedy—the human vegetable—since the heart is more tolerant than the brain of the insult of hypoxia.

Merely prolonging the process of dying

The reasons for these apparent errors of judgment are several. In a high proportion of cases, particularly those occurring outside hospital, the victim and his circumstances are unknown to the rescuer, who may well not be competent to assess whether resuscitation is appropriate or not in the particular individual. Sadly, through lack of communication, this state of affairs also occurs from time to time in hospital practice. A junior ward nurse, unless explicitly instructed not to do so, feels, not unreasonably, obliged to call the resuscitation team to any patient with cardiorespiratory arrest. She is not qualified to certify death. The team is often unaware of the patient's condition and prognosis and, because of the urgency of the situation, begins treatment first and asks questions afterwards.

Ideally, resuscitation should be attempted only in patients who have a very high chance of successful revival for a comfortable and contented existence. A study of published reports containing results of series of resuscitation attempts shows that this ideal is far from being attained. Typical figures include a 12% survival rate for one month in 1972,¹ a 14% survival to be discharged from hospital,² and, more recently, a discharge rate of 14% in 1982³ and 21.3% in 1984.⁴ De Bard, reviewing published reports in 1981, reported an overall discharge rate of 17%.⁵ In each of these series a substantial number—usually about 50-60%—failed to respond to the initial resuscitation attempts. In many of these, particularly the younger patients, effort was clearly justified initially. The cause of the arrest was apparently myocardial ischaemia, and the outcome cannot be confidently predicted in any individual patient. However, some of the papers drew attention to the large proportion of patients in whom resuscitative efforts were inappropriate and unjustified. Sowden *et al* reported an incidence of 25% of cases in

A 32 year old woman was admitted in a quadriplegic state due to a spinal injury incurred when she had thrown herself from the Clifton Suspension Bridge. She had made 18 previous attempts at suicide over the previous five years, sometimes by taking an overdose of tablets of various kinds and sometimes by cutting her wrists. She had been injecting herself with heroin for the past seven years and had no close relationships with her family and no close friends. During her stay of two days in the intensive care unit she developed pneumonia and died. A conscious decision not to provide artificial ventilation and resuscitation had been made beforehand.

which resuscitation merely prolonged the process of dying.

While assessments are undoubtedly easier in retrospect there are clearly many cases in which the decision not to resuscitate might have been made before the event. Since the number of deaths in hospital always exceeds the number of calls for resuscitation, a decision not to resuscitate is clearly being made in many instances. There is, however, much room for improvement.

Deciding not to resuscitate

The decision not to resuscitate revolves around many factors—the patient's own wishes, the opinion of a relative, who may be reporting the known wishes of a patient who cannot communicate, the patient's social environment, the patient's prognosis, and his ability to cope with disablement of one form or other. The decision should not revolve around doctors' pride.

The examples in the boxes may serve as food for thought on whether the value judgment was right or wrong.

Decisions on whether or not to resuscitate are generally made about each patient in the atmosphere of close clinical supervision prevalent in intensive care units of the UK, and the decision is then communicated to the resident medical and nursing staff. In the general wards, however, the potential situation in specific patients may not actually be discussed, and inappropriate resuscitation occurs by default. There is a reluctance to label a mentally alert patient, who is nevertheless terminally ill, "Not for resuscitation." There are, sadly, doctors who refuse to acknowledge that the patient has reached end stage disease, perhaps because they have spent so much time and effort in treating them. There are those who, having spent their career in hospital practice, cannot comprehend the difficulties for the severely disabled of an existence without adequate help in a poor and miserable social environment. There are those who fear medicolegal

sanctions if they put their name to an instruction not to resuscitate.

In the UK the decision not to resuscitate in the general wards tends to be an individual and informal one made ultimately by the clinician looking after the patient, perhaps at the instigation of others, such as the nursing staff and his team colleagues. The clinician is not, however, obliged to consider or make such a decision, much as it might be beneficial in many cases.

Formal policies

At the Chedoke and McMaster Hospitals in Hamilton, Ontario, a formal policy about when not to resuscitate has been introduced on the advice of the medical advisory committee and at the instigation of the nursing staff, who were concerned at the varied practices occurring in the hospital.⁶ The very comprehensive policy and guidelines require that before writing "Do not resuscitate" on the patient's notes, the clinician must consult the patient or his relatives and seek a second opinion from another colleague if the patient or his relatives wish it. Correctly, the order must be reviewed at regular intervals. The General Council of the Canadian Medical Association had previously indicated that it was ethical for a doctor to write such an order in the appropriate circumstances.⁷

Initially, the Canadian doctors were concerned about a number of points, particularly potential infringement by the hospital administration of their clinical freedom, as they saw it, fear of medicolegal recriminations, and worry that patients and their relatives might interpret the no resuscitation policy as the withdrawal of palliation and comforting measures and pain relief. However, after implementation of the policy most clinicians felt that on the whole it was beneficial to both patients and doctors.

"Do not resuscitate" policies in the United States also tend to be formal affairs with a strict protocol to be followed.⁸ It is unlikely, however, that doctors in the UK would be willing, or indeed wise, to conform to rigid guidelines in such a

A 62 year old woman had a cardiac arrest in a thoracic ward two days after undergoing pneumonectomy for resectable lung cancer. Her remaining lung was clearly fibrotic and malfunctioning and her cardiac arrest was probably hypoxic and hypercarbic in origin. Because no instructions had been given to the contrary, she was resuscitated by the hospital resuscitation team and spontaneous cardiac rhythm restarted after 20 minutes. She required continuous artificial ventilation and was unconscious for a week. Over the next six weeks she gradually regained consciousness but could not be weaned from the ventilator. She was tetraplegic—presumably as a result of spinal cord damage from hypoxia—but regained some weak finger movements over two months. At three months her improvement had tailed off and she was virtually paralysed in all four limbs and dependent on the ventilator. She died five months after the cardiac arrest. She was supported throughout her illness by her devoted and intelligent husband, who left his work to be with her and continued to hope for a spontaneous cure until very near the end.

A 9 year old boy was admitted with 50% burns (mostly full thickness) of his face and head, chest and arms. His nose and parts of his ears and most of his finger tips were destroyed. His corneas were opaque. He had also received severe thermal injury to his respiratory tract, requiring endotracheal intubation and artificial ventilation. At one stage his arterial PO₂ fell to 5.3 kPa (40 mm Hg) despite an inspired oxygen concentration of 80% and 7 cm H₂O positive end expiratory pressure. His devoted mother was divorced and had three other children. A decision was made to withhold dopamine and other resuscitative measures if they should be needed, but he improved spontaneously with the support of intravenous fluids and artificial ventilation. He and his family and friends face difficult times ahead.

delicate, sensitive, and personal issue. This attitude may reflect the fact that the British doctor, by and large, is more confident of his relationship with his patients than his transatlantic counterpart, and it may also reflect a different feeling of trust on the part of the British patient towards his doctor.

Importance of clinical judgment

We are fortunate indeed that there appears to be greater understanding between patient and doctor in the UK, as reflected by the much lower incidence of medicolegal activity. Nevertheless, we must take heed of experience from across the Atlantic. The need is clear for us to ensure that futile attempts at resuscitation are minimised and that the modern medical profession does not get a name for prolonging misery and the process of dying simply because we are afraid to make a decision or because we are too proud to admit that all patients die sometime and that that time may be imminent.

On occasions, the decision whether or not to resuscitate may be fudged by the clinician. "Try just a bit and see if he responds" is fraught with danger and is more likely to prolong the vegetative and dying process. Nevertheless, the decision not to resuscitate should not be confused with other treatment destined to make the patient comfortable and enable him to take his chance if fate so decrees. Clinical judgment here is of the essence.

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The ABC of Resuscitation will be published as a book in the autumn.

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