Cardiopulmonary resuscitation: who makes the decision?

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Recent guidelines suggested that cardiopulmonary resuscitation should not be given (a) when a patient competent to give informed consent does not wish to have it, (b) when a patient is not competent to give consent and resuscitation is considered to be against his or her best interests, or (c) when resuscitation would probably not be successful.¹ Attempts are made, however, to resuscitate patients with little prospect of recovery,^{2,4} and few doctors in Britain ascertain whether a patient wishes to be resuscitated.

We explored doctors' views on resuscitation and determined if it was possible to ask patients whether they would wish to be resuscitated.

Methods and results

A questionnaire was sent to 80 hospital doctors to establish who took part in decisions on which patients to resuscitate and to ascertain which patients would be resuscitated. Before being discharged from a general medical ward 50 consecutive patients were asked who should decide if patients should be resuscitated and whether they would have wanted to be resuscitated if they had collapsed during their admission. A further 50 consecutive general medical inpatients were asked within 24 hours of admission whether they wished to be resuscitated if they collapsed during their admission. In both groups of patients, the patients' wishes were compared with the decisions of the medical team.

Only one of the 34 doctors who returned the questionnaire thought that patients should be consulted

routinely on the decision to resuscitate; the remaining 33 doctors thought that patients should never or only rarely take part in the decision. In practice no doctors discussed resuscitation with patients, although two spoke to relatives. While junior staff who returned the questionnaire would resuscitate all healthy people irrespective of age, seven of the 24 senior staff would not resuscitate healthy patients aged over 70. Although the doctors' reluctance to resuscitate patients increased with increasing severity of illness, a third of the doctors would attempt to resuscitate patients with incurable malignancy.

The table shows the patients' responses. All patients thought that resuscitation should be discussed with them, and only one was emotional during the interview. Overall, 59 wished to take part in the decision, and many thought that the decision to resuscitate should be theirs alone. A substantially greater proportion of patients (especially women) over 60 than 60 or under did not want to be resuscitated, even though few had malignant disease or were expected to die soon. In 65 cases the patients and doctors agreed about resuscitation. In 27 cases, however, the doctors favoured resuscitation while the patients did not; disagreement between doctors and patients was particularly common when the patients were women over 60 (in 21 of 47 cases the women did not want resuscitation while the doctors did).

Comment

Despite the poor response rate to the questionnaire (43%) our results clearly show that few doctors seek patients' views when deciding whether to resuscitate. Furthermore, many doctors would attempt to resuscitate patients with little or no prospect of recovery.

Doctors generally believe that it would distress patients to discuss resuscitation.⁴ In our survey, however, all patients thought that it was appropriate for doctors to discuss it with them, and most wanted to take part in the decision. Indeed, the wishes of many of the older patients conflicted with the doctors' decisions. If doctors are to satisfy the guidelines for withholding resuscitation they will have to make important changes in the way they practise.

Results of survey of 100 general medical inpatients about cardiopulmonary resuscitation. Values are numbers (percentages) of patients unless stated otherwise

	Before discharge		Within 24 hours of admission	
	Men (n=24)	Women (n=26)	Men (n=20)	Women (n=30)
Average (range) age (years)	61 (25-84)	66 (20-85)	63 (29-83)	71 (51-85)
Patients wishing to take part in decision on resuscitation	18 (75)	17 (65)	12 (60)	12 (40)
Age of patients not wanting to be resuscitated (years)				
≤ 60	1/10 (10)	1/5 (20)	1/6 (17)	0/4 (0)
> 60	6/14 (43)	13/31 (62)	4/14 (29)	17/26 (65)

Differences between two groups of patients and between men and women were not significant.

1 Doyal L, Wilsher D. Withholding cardiopulmonary resuscitation; proposals for formal guidelines. *BMJ* 1993;306:1593-6.

2 O'Keefe S, Redahart C, Keane P, Daly K. Age and other determinants of survival after in-hospital cardiopulmonary resuscitation. *Q J Med* 1991;296:1005-10.

3 Smith EM, Hastie IR. Resuscitation status of the elderly. *J R Coll Physicians Lond* 1992;26:377-9.

4 Schade SG, Muslin H. Do not resuscitate decision: discussions with patients. *J Med Ethics* 1989;15:186-90.

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Views of elderly patients and their relatives on cardiopulmonary resuscitation

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Proposed guidelines for withholding cardiopulmonary resuscitation suggest that "when appropriate, consultations with patients or their relatives, or both, should be considered before decisions are made."¹ In practice when a decision is made not to resuscitate an elderly patient the patient is rarely consulted even if he or she is mentally competent. Relatives are more likely to be consulted. We assessed the views of both elderly patients and their relatives on this subject.

Methods and results

We interviewed 100 alert patients (abbreviated mental test score at least 8 out of 10; mean age 80.4 years; 62 women) and their legal next of kin. All were interviewed individually in private by a doctor unknown to them. The main diagnoses were; angina (28), chest infection (22), heart failure (8), stroke (8), cancer (6), miscellaneous (28). The median length of stay was 22 days (range 0-89). Patients were aware of their diagnoses and were interviewed when the acute illness was over. No patient was imminently expected to die.

The procedure for cardiopulmonary resuscitation was explained to everybody interviewed. Criteria associated with a good outcome were explained as well as its futility in certain cases and the fact that it might result in dependency before eventual death. Data were analysed using McNemar's χ^2 test.

	Patient yes Relative yes	Patient yes Relative no	Patient no Relative yes	Patient no Relative no	χ^2 and P value
Do you think that the final decision on CPR status of you/your relative should be the doctor's?	63	6	17	3	$\chi^2=4.35$ P=0.037
Do you think it appropriate that you/your relative is consulted about CPR?	54	34	6	1	$\chi^2=18.23$ P<0.0001
Do you think that age is an important factor in deciding whether to resuscitate or not?	9	30	20	39	$\chi^2=1.62$ P=0.20
Some people are physically disabled and depend on others to care for them continuously. Do you think that they should be resuscitated in the event of a cardiac arrest?	31	10	37	14	$\chi^2=14.4$ P=0.0001
Some people are mentally disabled (demented). Do you think that they should be resuscitated in the event of a cardiac arrest?	5	9	33	43	$\chi^2=12.6$ P=0.0004

Rows do not add up to 100 as a few subjects responded "don't know."

Most patients and relatives (89 and 88) thought that doctors should discuss plans for cardiopulmonary resuscitation with them. Interestingly, 34 patients felt that discussion on their resuscitation status should be limited to themselves while 37 relatives thought that this should involve them but not the patient. Age was considered not to be important in cardiopulmonary resuscitation decisions (60 patients, 70 relatives). More patients than relatives thought that people with physical and mental disability should not be resuscitated (table). No relation existed between a patient's diagnosis, sex, and their views on resuscitation. Most people did not feel uncomfortable discussing their resuscitation status (98) or that of their relatives (95) but welcomed it: "I am grateful to be asked my opinion on such an important topic." Thirteen patients had "do not resuscitate" in their casenotes. Eight of these wanted to undergo cardiopulmonary resuscitation whereas 35 of the remaining 87 (who would have been resuscitated in the event of an arrest) did not.

Comment

Although cardiopulmonary resuscitation is available in all hospitals, not all patients are suitable candidates. In particular, people with pneumonia, hypotension, and cancer have a poor outcome, though age does not necessarily affect outcome.²

Recent studies have shown that physicians rarely make "do not resuscitate" decisions, although geria-

tricians are more likely to do so.^{2,3} They rarely discuss these decisions with patients, however, possibly because they feel uncomfortable doing so. Stolman *et al* showed that 30% of doctors felt uncomfortable discussing resuscitation plans with patients whereas only 9% felt uncomfortable doing so with relatives.⁴ Schade and Muslin found that discussion led to added distress for patients, or patients forgot about the discussion altogether,⁵ though their patients were young and dying. These findings contrast with ours, in which most patients welcomed discussion. Possibly our older patients may have come to terms with their own mortality, although none was in imminent danger of death.

There were many reasons why 37 relatives wanted their "loved ones" excluded from discussions about resuscitation, but it is unethical to discuss the issue with relatives but not with a mentally competent patient. The lack of concordance in 43 cases between the decision to resuscitate or not and the patient's wishes raises ethical dilemmas. Eight of 13 patients with do not resuscitate orders wanted cardiopulmonary resuscitation even though six had carcinomatosis and despite discussions on outcome and life expectancy. Legally if a patient requests cardiopulmonary resuscitation it should be provided and not doing so could result in litigation (personal communications, Medical Protection Society and Medical Defence Union). If patients' views had been taken into account routinely then 27 possible resuscitation procedures would be avoided, with streamlining of the service in terms both of maintaining dignity and saving resources. The elderly welcome discussion on cardiopulmonary resuscitation. Although this may produce ethical dilemmas it will more often ensure more appropriate decisions.

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- 1 Doyal L, Wilsher D. Withholding cardiopulmonary resuscitation: proposals for formal guidelines. *BMJ* 1993;306:1593-6.
- 2 Davies KN, King D, Silas JH. Professional attitudes to cardiopulmonary resuscitation in departments of geriatric and general medicine. *J R Coll Physicians Lond* 1993;27:127-30.
- 3 Stewart K, Abel K, Rai GS. Resuscitation decisions in a general hospital. *BMJ* 1990;300:785.
- 4 Stolman CI, Gregory JJ, Dunn D, Levine JL. Evaluation of patient, physician, nurse and family attitudes toward do not resuscitate orders. *Arch Intern Med* 1990;150:653-8.
- 5 Schade SG, Muslin H. Do not resuscitate decisions: discussions with patients. *J Med Ethics* 1989;15:186-90.

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A PAPER THAT CHANGED MY PRACTICE

Reversible mental impairment in alcoholics

As a psychiatric registrar I was taught that brain damage following alcoholism occurs late and is irreversible. In 1980 Guthrie and Elliott published their paper on "The nature and reversibility of cerebral impairment in alcoholism."¹ They examined 92 alcoholic abusers and found significant impairment on psychological tests in those with long histories or signs of clinical malnutrition. In the 35 examined six months later reduced drinking was associated with less impairment when testing was repeated. In other words, brain damage following alcohol abuse occurs early and is potentially reversible.

Following these findings every patient in our hospital with a diagnosis of Korsakoff's psychosis was treated with high dose parenteral multivitamins. Several made significant improvements even after long periods of illness and some became well enough to live independently outside hospital.

Since then I have examined the memories of alcohol abusers as soon as they are even briefly sober. Mild memory impairment is commonly present. Faulty memory impairs abstract thinking, which may account for the poor

outcome seen in many alcoholics. If treatment can be achieved high dose parenteral vitamins often produce substantial improvement, postponing permanent damage, and enabling the patient to make better use of psychological and social interventions when they are offered. Some patients with well established Korsakoff's psychosis have also improved significantly with treatment. The *British National Formulary* recommends at least 17 doses of high potency multivitamin injection (total thiamine dose 4.25 g) for Wernicke's encephalopathy with or without Korsakoff features.

One of our recent patients was a man of 56 who had been abusing alcohol heavily for several years. He came to us "for long term care," confabulating and with marked impairment of short term memory. He received parenteral multivitamins daily for 30 days, improved steadily, and was transferred to our rehabilitation unit. He is now at home again, caring for himself, and planning to marry shortly. This man and many others have cause to be grateful to Guthrie and Elliott.—ALASDAIR J MACDONALD is a consultant psychiatrist/psychotherapist in Dumfries

- 1 Guthrie A, Elliott WA. The nature and reversibility of cerebral impairment in alcoholism: treatment implications. *J Studies Alcohol* 1980;41:147-55.