

Hospital Practice

Attitudes of hospital doctors in Wales to use of intravenous fluids and antibiotics in the terminally ill

P.P. Marin*, A.J. Bayer, A. Tomlinson and M.S.J. Pathy

University Department of Geriatric Medicine, Cardiff Royal Infirmary, Cardiff CF2 1SZ, UK.

Summary: Decisions concerning the use of intravenous fluids and antibiotics in terminally ill patients are regularly made by hospital doctors, but there is little record of staff attitudes and current practice in Britain. A questionnaire was therefore distributed to 833 Welsh hospital doctors, citing the case of a hypothetical terminally ill patient and asking questions about medical management. Of the 448 (54%) doctors who replied, 346 (77%) had managed a similar patient recently. Intravenous fluids would be administered by 238 (53%), with 206 of these (87%) resiting the cannula as required and 62 (26%) resorting to a central venous line if there was no alternative. With increasing age and seniority doctors become conservative in their approach. Nearly all claimed that 'ensuring the patient's comfort' was the reason for their decision. Only 72 (16%) would use antibiotics if the patient became pyrexial.

The results suggest that British doctors are divided in their approach to the medical management of terminally ill patients and there is a need for greater discussion and training so that all the issues involved are fully appreciated.

Introduction

The ethics of withholding treatment which may temporarily sustain life in terminally ill patients has been much discussed.¹⁻⁵ Decisions concerning the use of intravenous (i.v.) fluids and antibiotics in this situation are regularly made by hospital doctors, but there is surprisingly little record of staff attitudes and current practice in Britain. In the USA, when answering a questionnaire about a hypothetical dying patient, 73% or more of doctors said they would routinely administer i.v. fluids¹ and in Latin America, the figure was 93%.⁵ We decided to distribute a similar questionnaire to a sample of hospital doctors working in Wales, in order to investigate local attitudes and likely practice.

Materials and methods

Names of all hospital doctors, other than those working in psychiatry, mental handicap and radiology, were obtained from three Health Districts in South Wales (South and Mid Glamorgan and

Gwent). All 833 doctors were sent the questionnaire and asked to complete it anonymously and return it to us in a pre-paid envelope. Similarly to the American studies^{1,5} the questionnaire (Table I) briefly outlined the situation of a terminally ill patient and then asked specific questions about medical management, with space available for elaborating answers.

Results

The 448 (54%) doctors who replied represented all grades and specialties and were considered to be representative of the group as a whole. Of these, 346 (77%) said they had managed, within the past year, a similar patient to the hypothetical case cited. There were 238 (53%) doctors who said they would administer i.v. fluids, with 206 (87%) of these resiting the cannula as required and 62 (26%) resorting to a central venous line if there was no alternative. The great majority, 203 (85%), gave 'ensuring the patient's comfort' as the reason for their decision, with 10 (4%) citing ethical reasons and 9 (4%) the need to consider the feelings of relatives. Consideration of the previously expressed views of the patient was not mentioned by any of the respondents. Only 63 (27%) would 'monitor the patient's condition to ensure good

Correspondence: A.J. Bayer M.B., B.Ch.

*Present address: Department of Medicine, Catholic University, Santiago, Chile.

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Table 1 Outline of questionnaire distributed to hospital doctors in South Wales

A hospitalised patient has an inoperable malignancy with extensive metastatic spread from which he is expected to die within 2 weeks. He has now become semi-comatose and without active intervention he is unlikely to survive more than a few days.

1. Would you administer intravenous fluids?
 - If YES (a) What would be the single most important factor influencing your decision?
 - (b) What statement best describes your approach to the patient?
 - Monitor the patient's condition to ensure good hydration and electrolyte balance
 - or Sufficient only to maintain adequate fluid balance.
 - (c) If the intravenous line becomes blocked would you try to re-site the cannula?
 - (d) If no superficial veins would you insert a cannula into a central vein?
2. If the patient develops a pyrexia,
 - (a) Would you collect blood cultures?
 - (b) Would you administer antibiotics?
3. Have you cared for a patient in similar circumstances within last 12 months?
4. Other comments.
5. Personal details: age, sex, specialty, grade.

hydration and electrolyte balance', with 162 (68%) giving 'sufficient only to maintain adequate fluid balance'. A few respondents commented that intravenous fluids would be inappropriate, but they would ensure hydration via a naso-gastric tube. With increasing age (in decades; $\chi^2 = 16.9$, $DF = 4$, $P < 0.01$) and seniority ($\chi^2 = 11.16$, $DF = 2$, $P < 0.01$), doctors became more conservative in their approach. Thus, 101 (63%) of house officers and senior house officers would administer i.v. fluids compared with 68 (52%) of registrars and senior registrars, and 65 (43%) of consultants. Sex and hospital specialty had little influence on reported practice, other than an enthusiasm of anaesthetists to use central venous lines [19 (58%) of 33 who would give i.v. fluids]. In the event of the patient developing pyrexia, 42 (9%) felt blood cultures should be taken and 72 (16%) would give antibiotics. This decision was not significantly influenced by age, sex, seniority or specialty, or attitude to use of i.v. fluids.

Discussion

The results of the present survey suggest that practising hospital doctors in Wales are divided in their approach to the care of terminally ill patients, with about equal numbers proposing active or conservative

management. This contrasts with reported North and South American attitudes, which are much more interventionist.^{1,5} The recent British Medical Association Working Party on Euthanasia⁶ believed that 'tubes for nutrition and hydration . . . are warranted only when they make possible a decent life' and stressed 'the team . . . must discuss with relatives whether this form of treatment is thought to be justified'. Only a few of our respondents mentioned the feelings of relatives as influencing their decision; with the great majority stressing the need to maintain patient comfort. This might suggest a failure by many to appreciate that comatose patients appear to have no sensation of thirst and that terminal dehydration is not a source of distress to patients.³ Excessive attention to control of electrolytes and fluid balance may divert attention from care of the patient and family at a critical time. Certainly symptoms such as dry mouth may be most effectively managed by regular small sips of water, ice cubes to suck and attention to good oral hygiene by nursing staff.⁷

Our observation that younger more junior doctors claim to be more interventionist than their seniors may reflect lack of confidence and experience, or may indicate a true difference in attitudes between the generations which is likely to persist. Younger doctors have worked at a time when fear of litigation is increasing and this may be leading them to the more widespread practice of supposed 'defensive medicine'. They are not as familiar as senior doctors with taking major decisions routinely and their inexperience may mean that the inevitability of the outcome in a terminally ill patient is simply not recognized or accepted. Active therapeutic interventions may provide some sense of continuing hope for both the doctor and family. Furthermore, it is the more junior members of staff who normally spend most time with the dying patient and this bond may be more easily sustained by 'doing something' rather than 'standing by', no matter how ineffective the intervention is likely to be.¹ There may be a failure to accept that death is a comfort to many patients and that intravenous fluids and unjudicious use of antibiotics may merely draw out the dying process. As Currie⁸ has recently commented, 'while saving life is a legitimate goal, prolonging death is not'.

There clearly remains a need for greater discussion and training in the management of the dying patient so that decisions are based on a full appreciation of the scientific evidence available and of the ethical issues involved.

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References

1. Micetich, K.C., Steinecker, P.H. & Thomasma, D.C. Are intravenous fluids morally required for a dying patient? *Arch Intern Med* 1983, **143**: 975–978.
2. Wanzer, S.H., Adelstein, S.J., Cranford, R.E. *et al.* The physician's responsibility toward hopelessly ill patients. *N Engl J Med* 1984, **310**: 955–959.
3. Editorial. Terminal dehydration. *Lancet* 1986, **i**: 306.
4. Jennett, B. Decisions to limit treatment. *Lancet* 1987, **iii**: 787–788.
5. Marin, P.P., Prat, G. & Serani, A. Intravenous fluid and fever treatment in a dying patient. *Rev Med Chile* 1988, (in press).
6. British Medical Association. *The Euthanasia Report* BMA, London, 1988.
7. Baines, M.J. Control of other symptoms. In: Saunders, C. (ed) *The Management of Terminal Malignant Disease*, 2nd edition. Edward Arnold, London, 1984.
8. Currie, C.T. Life sustaining technologies and the elderly. *Br Med J* 1988, **297**: 3–4.