

# On withholding nutrition and hydration in the terminally ill: has palliative medicine gone too far? A reply

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## Abstract

*Patients who are dying of cancer usually give up eating and then stop drinking. This raises ethical dilemmas about providing nutritional support and fluid replacement. The decision-making process should be based on a knowledge of the risks and benefits of giving or withholding treatments. There is no clear evidence that increased nutritional support or fluid therapy alters comfort, mental status or survival of patients who are dying. Rarely, subcutaneous fluid administration in the dying patient may be justified if the family remain distressed despite due consideration of the lack of medical benefit versus the risks. Some cancer patients who are not imminently dying become dehydrated from reversible conditions such as hypercalcaemia. This may mimic the effects of advanced cancer. These conditions should be sought and fluid replacement therapy should be given along with the specific treatments for the condition.*

The issues surrounding the management of fluid and nutritional status in the terminally ill were brought sharply into focus by Dr Craig (1). She rightly pointed out the dangers of automatically withholding fluid replacement therapy. Palliative care never has been, and never should be, an excuse for bad medicine. The need for careful clinical assessment and diagnosis of every problem is a central premise of palliative care. Reversible conditions such as hypercalcaemia may cause dehydration in cancer patients who are not imminently dying. If rehydration is not carried out, the patient will deteriorate rapidly. The gaunt appearance and altered state will mimic the effects of advanced cancer.

It is important to distinguish those patients for whom fluid replacement is medically indicated. A distinction can often be made on clinical grounds. Dying patients have a longer history (weeks or months) of gradual deterioration with increasing weakness, fatigue, weight loss and drowsiness. Dehydration will cause a more rapid deterioration, usually over days, in the setting of a precipitating

cause suggested by the history (for example, polyuria, polydipsia with hypercalcaemia, or vomiting from bowel obstruction), clinical examination and appropriate laboratory findings. The acute change will cause considerable distress both to the patient and the family. Such distress should be used as a further prompt to search for a reversible problem. It should be borne in mind that some people deny the previous history of gradual decline and then 'suddenly' become distressed when the patient finally stops swallowing. When there is doubt, a therapeutic trial of fluids and other appropriate treatments may well be warranted so long as the wishes of the patient are not contravened.

On the other hand, most terminally ill cancer patients reach a point during their gradual physical decline when they first stop eating and then subsequently stop drinking. This occurs even in patients who are not taking medications and as Dr Craig pointed out, this situation arouses considerable distress for the relatives. Dr Gillon discussed the principles which should be followed when conflict arises between patient proxies and staff (2). However, conflict may be prevented by anticipatory dialogue based on the evidence for the risks and benefits of giving versus withholding treatment.

Nutritional support should be considered as a separate issue from hydration. The administration of conventional dextrose solutions via peripheral veins does not constitute nutritional support. This can only be achieved by enteral feeding (nasogastric tube or gastrostomy) or by parenteral administration into a central vein. Although patients with advanced cancer appear to be malnourished, the metabolic abnormalities are quite different from starvation in an otherwise healthy person. There is no evidence that in patients with advanced cancer, aggressive nutritional support, either enteral or parenteral, prolongs life or even significantly alters the metabolic abnormalities (3). Indeed there is evidence that cancer growth may be accelerated, thereby increasing local symptoms from the cancer (4). Nutritional support may be helpful for the small number of patients who have local disease causing swallowing difficulties but who are not

## Key words

Nutrition; hydration; palliative medicine; terminally ill.

yet dying from widely disseminated endstage cancer, for example, those with head and neck cancers.

Dehydration results from an intake of water below the minimum required to maintain homeostasis. In someone who is otherwise healthy, the symptoms are thirst, dry mouth, headache, fatigue, then cognitive impairment followed by the sequelae described by Dr Craig: circulatory collapse, renal failure, anuria and death. The first clue suggesting that the situation in cancer patients is not equivalent to acute dehydration came from clinical observations in dying patients who were not taking any medications and who did not have correctable causes for their deterioration. In such patients systemic symptoms such as fatigue and drowsiness usually precede the cessation of fluid intake by several days or weeks. Even though these patients may be very drowsy at the time they stop drinking, they can rouse and respond to questions from family for example.

Analysis of blood and urine chemistry in terminally ill patients has failed to disclose evidence of the expected changes from dehydration (5,6). In a recent prospective study of dying cancer patients (median time to death, two days) the symptoms of dry mouth and thirst were not correlated with the level of hydration (6). These findings support the work of Burge who investigated dehydration symptoms in 51 cancer patients with an estimated prognosis of less than 6 weeks. He found no significant association between biochemical markers of dehydration (serum osmolality, urea and sodium) and the symptom of thirst (7). Therefore giving additional fluid to dying patients in order to alleviate the symptoms of dry mouth and thirst may well be futile.

In the same way that hunger is not a feature of the anorexia-cachexia syndrome, thirst is not associated with decreasing fluid intake in those close to death. It is possible that the normal homeostatic mechanisms controlling fluid intake and fluid balance are altered in the dying process. Further evidence for this hypothesis derives from studies of patients given fluids intravenously. Waller *et al* compared 55 patients treated with oral fluids with 13 patients who received IV fluids (8). They found no difference in the biochemical parameters and state of consciousness between the two groups.

It seems reasonable to conclude from these observations that nutritional or fluid supplementation cannot be automatically justified on medical grounds for patients dying of advanced cancer. Is fluid therapy harmful? To our knowledge, no studies have demonstrated any adverse effects from fluid therapy. Intravenous cannulae can pose a problem to patient comfort if the arm needs splinting. This can be overcome by using the subcutaneous route. Terminally ill patients have lower albumin levels (6) which may cause problems when crystalloid

solutions are administered. Albumin is the plasma protein which is largely responsible for maintaining colloid osmotic pressure. This pressure counteracts the forces which tend to move fluid out of the blood vessels. The authors have seen patients develop pulmonary oedema, rapidly increasing ascites, and unsightly peripheral oedema involving conjunctivae and the hands when given intravenous fluids in acute hospital wards, particularly if the serum albumin is below 26 g/l.

Dr Craig drew attention to the use of sedation in terminal care. Once again, a careful history and examination is necessary to distinguish terminal agitation from a reversible problem in someone who is not actually dying. Terminal agitation must be treated aggressively, otherwise the distress of the patient will become extreme. Even when incremental doses of sedatives are given, it is rarely possible to achieve a balance between relief of agitation and alertness. All palliative care practitioners would echo the experience of Dr Wilkes who described the problems of trying to reduce the dose of sedatives when the patient is settled (9).

When sedation is required in a patient who is not actually dying, we rarely find that it is necessary to render the patient unconscious. Nursing staff can still feed the patient and maintain hydration. The dose of tranquillisers is always reduced to the lowest dose necessary to control the symptoms. We would seek the advice of a consultant psychiatrist in treating such cases.

Given that there is no clear evidence of symptomatic benefit from nutritional or fluid therapy in cancer patients who are dying and that there is potential for harm if there is severe hypoalbuminaemia, we do not recommend the routine use of intravenous or subcutaneous fluids. When discussing these issues with a family, it is important not to argue from some philosophical standpoint, but it is important to present the facts carefully. On most occasions, families will be reassured and their sense of helplessness can be assuaged by encouraging them to perform mouthcare. Some families (particularly from some cultural and religious backgrounds) may not be satisfied. In these circumstances, so long as no contrary opinion has been expressed by the patient, we give subcutaneous fluids for the sake of the family. This situation only arises two to three times per 1,000 admissions per year at St Christopher's Hospice. The volume is kept to no more than one litre per 24 hours to avoid overload. The use of a local anaesthetic cream will prevent painst from the cannula insertion. The infusion is usually given overnight; the subcutaneous line is capped and left in-site during the day so that the patient is not subjected to multiple needle pricks. By giving the infusion intermittently, it is easier for the family to make the decision to discontinue therapy.

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## News and notes

### Euthanasia: Towards a European consensus?

A conference entitled Euthanasia: Towards a European Consensus? will be held in Brussels, Belgium from the 24-26 November this year.

Participants will include Judge Christian Byk, former bioethics adviser to the Secretary-General of the Council of Europe, Professor Paul Schotsmans, The

Catholic University of Leuven, and Patrick Verspieren SJ, Centre Sevres, Paris.

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