

Artificial Hydration at the End of Life – Treating the Patient, Family or Physician?

Shirlynn Ho, ¹MBBS, MRCP, MMed, Lalit KR Krishna, ¹MBChB, FRCP, PhD

The debate surrounding the provision of artificial hydration at the end of life continues to provoke impassioned arguments on both sides of this position, particularly in light of a lack of conclusive evidence for either position. The situation is further complicated by variances in practice locally as well as globally, which is both physician- and setting-dependent, individualised to the patient and family caregivers.

Ethical and Legal Aspects

At the root of this debate is a difference of opinion whether artificial hydration ought to be considered part of basic care or be seen as a medical intervention. Up to 38% of patients and caregivers from a study in United States perceived artificial hydration at the end of life as “food”, 34% as “medicine” and 14% as “both food and medicine”. Patients and caregivers from ethnic minorities perceived it more as food than medicine.¹

By classifying the issue of hydration and nutrition at the end of life under the realm of palliative care and giving the healthcare team discretion to balance the clinical and overall context on a case-specific basis, Singapore’s Advanced Medical Directive Act² circumnavigates much of this debate.

If artificial hydration is indeed considered a medical intervention, which is the current legal perspective, it ought to be prescribed by a physician after consideration of its indications, contraindications, potential benefits and side effects. The patient’s autonomy also allows him to decline this intervention, even if offered, and there is no difference between withholding or withdrawal of it from moral, ethical and most religious viewpoints.

Clinical Aspects

Feeding and hydrating the dying and vulnerable is held to be a sign of love and concern in local culture, and also a means of possibly prolonging life and alleviating symptoms.

Thus it is instinctive to many that hydration, be it artificial or natural, be continued, yet such practice may not fully consider the realities of end-of-life care.

Proponents of artificial hydration argue that it provides comfort and relieve symptoms such as thirst, confusion and neuromuscular irritability. They suggest that it maintains health and therefore may potentially shorten life if withheld or withdrawn. It is thus a part of the most basic of care requirements and an irrefutable human right. It is a measure of hope and means of maintaining familial ties and bonds with healthcare providers. From such a perspective, to deny such an intervention would be tantamount to abandonment.^{3,4}

Opponents of hydration deny that a failure to hydrate would hasten death,⁵ to them overhydration rather than dehydration is ultimately bad for the patient. Dehydration is a natural process in dying as patients’ oral intake decrease. With dehydration there is decreased urine output and with that, less need for catheters, less gastrointestinal secretions, with less vomiting, less pulmonary secretions and chest congestion. Ketones and other metabolic byproducts in dehydration may act as natural anesthetics for the central nervous system, resulting in decreased consciousness, and with that decreased suffering.⁴ If patients are conscious and experience thirst, artificial hydration does not alleviate thirst anymore than local oral measures.⁶ Provision of hydration is also viewed as a perpetuation of unrealistic expectations of cure which run counter to goals of care at this stage of life which ought to be focused on completing important life tasks, nurturing relationships rather than hydration regimens.

We now know that artificial hydration does not prolong life in patients with advanced cancer at the end of life, with prognosis of days to short weeks.^{5,7} It has no correlation with thirst⁸ and does not relieve dehydration symptoms like sedation, fatigue, myoclonus and hallucinations.⁵ On the other hand, concerns about fluid overload symptoms with hydration also seem unwarranted as less than 1 litre per day seems well tolerated by most patients.

Yet, before we are tempted to be led solely by this data,

¹Division of Palliative Medicine, National Cancer Centre Singapore, Singapore

Address for Correspondence: Dr Ho Shirlynn, Division of Palliative Medicine, National Cancer Centre Singapore, 11 Hospital Drive, Singapore 169610.

Email: shirlynn.ho@singhealth.com.sg

sociocultural factors that play just as significant a part in the provision of holistic care, cannot be ignored.

Local Practice

Despite low clinical utility, patients and their family still see artificial hydration as providing hope and comfort, nourishing the body, mind and spirit.⁹ They deem this an important issue and want to be involved in the discussion of its benefits and burden. Even though most patients would be willing to be guided by doctors and many would be happy for their doctors to make the final decision, this decision to cease hydration remains emotive and context-sensitive.¹⁰

Most terminally ill patients cared for at home or at inpatient hospices rarely receive artificial hydration and nutrition, yet within the acute hospital setting, up to 60% of terminally ill Singaporeans received artificial hydration in the last 48 hours of life.¹¹ This difference in practice may be accounted for by beliefs of the physician-in-charge, the relative ease of organising artificial hydration in hospital and difficulty of prognostication in hospital where life prolonging interventions are ongoing. Family members who have decided to send their loved ones to the acute hospital may also be those who desire more active medical interventions and thus likely to be more distressed without artificial hydration.

Navigating the Course

As a patient-centred approach is key to addressing such difficult decisions, it will be helpful to explore patient's and family's understanding about artificial hydration and their philosophical position on end of life care when the patient can still participate in decision-making.¹⁰ Exploration of their goals during this phase of life and discussion on the limited benefits as well as potential burdens of this intervention will be seen as guidance by their healthcare providers. Most patients and families are appreciative of this and consider it a critical facet in their determinative process.

If decision is to withhold or withdraw artificial hydration, assuring families that care will still be taken that patient remains comfortable and teaching them how to demonstrate care via other nurturing activities is often sufficient to allay their concerns. If the medical opinion is to withhold artificial hydration but patient or family is distressed by this, it is reasonable to start a time-limited trial as long as there are no contraindications like fluid overload states or oedema. This involves delineating goals of the trial, setting a date for review and specifying criteria for discontinuation. In the event of a decision for artificial hydration and patient is to be cared for in the community, it will be prudent to hold a discussion with the home or inpatient hospice team on the reasons and feasibility of this decision. This will ensure a

smooth transition of care from one setting to the next. The most challenging setting to provide artificial hydration is at home. In the local context, where most carers are family members or foreign live-in helpers rather than nurses, training of carers to be confident with administration of artificial hydration and ongoing support from the home hospice team is needed to ensure success of the intervention. Hypodermoclysis, which is the subcutaneous infusion of fluids, is the preferred route at home, compared to intravenous infusion. This route reduces technical expertise needed from carers to care for injection sites as well as to monitor and adjust flow rates.

Conclusion

The use of artificial hydration at the end of life should be a case-specific decision-making process led by a holistic review of the patient's condition. Decision to cease, withhold or start such an intervention should be delineated by clinical considerations, with appropriate consideration of the patient's and family's overarching goals of care, beliefs, culture and values.

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