# Guidelines for the Use of Hydration in the Dying Patient

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## Summary of Main Recommendations

### Provision of Oral Fluids and Mouth Care

- Reduced oral intake is common when a person is in the last days or hours of life.
- Oral fluids are part of basic patient care and patients should be encouraged to take sips of fluid whenever possible. Oral hydration should be provided taking into account any swallowing difficulties, risk of aspiration and patient preferences. ⁴  
  [Level 4]
- Regular mouth-care should be performed and documented between two and four times per day. Those important to the patient should be encouraged to participate in the provision of mouth-care as they feel comfortable. ⁴  
  [Level 4]

### Assessment and Decision Making

- Decisions around the use of clinically assisted hydration (CAH) can be very complex. There is a lack of randomised controlled trials.¹,²  
  [Level 4]
- Decisions relating to CAH should be individualised to each patient and reviewed daily by the clinical team.²  
  [Level 4]
- Decisions regarding CAH should involve assessment of the presence or absence of: thirst, respiratory tract secretions and fluid overload (i.e. pulmonary oedema, peripheral oedema, ascites, pleural effusions) and clinical dehydration.²  
  [Level 3]
- All decisions regarding CAH should be made in accordance with the principles of the Mental Capacity Act 2005.⁵  
  [Level 4]
- Communication with and involvement of the multi-professional team, patients and those important to them, is essential in any discussions and decision making about the use of CAH.⁵  
  [Level 4]

### Potential Risks and Benefits of Clinically Assisted Hydration

- Potential risks and benefits of CAH should be discussed and documented with patients and families, although robust evidence in the dying phase is lacking.²,⁶  
  [Level 1]
- There is weak evidence that CAH may worsen oedema, ascites and pleural effusions in patients with advanced cancer.⁷  
  [Level 3]
- There is weak evidence to suggest that CAH may reduce myoclonus and sedation at the end of life, as well as improving chronic nausea.⁸,⁹  
  [Level 3]
- There is no strong evidence to suggest that CAH causes or worsens respiratory tract secretions for patients who are in the last days or hours of life. There is no evidence that CAH either prolongs life or the dying phase.²  
  [Level 4]
Administering Clinically Assisted Hydration

- CAH can be administered via a number of routes including intravenous, subcutaneous, nasogastric, percutaneous endoscopic gastrostomy (PEG), percutaneous endoscopic jejunostomy (PEJ) or a radiologically inserted gastrostomy (RIG) tube.\(^1,2\) [Level 4]
- A time-limited trial of CAH may be appropriate in some patients, particularly in those who are experiencing thirst, but there should first be careful discussion with the patient and those important to them followed by clear documentation.\(^2\) [Level 4]
- A recommended regimen would be at least 1 litre of fluid over 24 hours with consideration of reduction if the patient is severely malnourished. There should be a daily assessment of benefit or harm.\(^2,10\) [Level 4]
- A decision to discontinue CAH should be discussed with the patient and those important to them and the discussion clearly documented.\(^2\) [Level 4]
- There is no evidence that supplementation of fluids with potassium or re-assessment of blood tests is of benefit for patients in the last hours or days of life.\(^10\) [Level 4]

Education and Training

- Health care professionals working in teams caring for persons in the last hours or days of life should have a basic understanding of the physiology of fluid and electrolyte balance. They should be trained in assessing patient needs, prescribing and administering parenteral fluids and evaluating and documenting changes as appropriate to their role.\(^10\) [Level 4]
Section 1: Introduction

- Reduced oral intake is common in the dying phase. Decisions regarding the use of clinically assisted hydration (CAH) are complex and often emotive for patients and those important to them, as well as for health care professionals.¹,² The lack of randomised controlled trials focusing on the risks and benefits of CAH further complicates decision-making.

- Clinically assisted hydration (CAH) includes intravenous or subcutaneous infusion of fluid, administration of fluid through a nasogastric tube or administration of fluid through a percutaneous endoscopic gastrostomy (PEG), percutaneous endoscopic jejunostomy (PEJ) or a radiologically inserted gastrostomy (RIG) tube.³

Section 2: Scope and Purpose

- The following guideline is an update of the “Guidelines for the Use of Hydration in Dying Patients” developed in 2006 and updated in 2009.⁴
- The guideline aims to support healthcare professionals to develop an individual plan of care for the use of hydration in a patient who is in the last days or hours of life.
- This guideline may be used by healthcare professionals who care for dying people in all care settings. It may also be used as a source of information for people with a life-limiting illness and those important to them.
- Table 1 summarises the scope and purpose of this guideline

Table 1: Scope of Guideline

<table>
<thead>
<tr>
<th>Population</th>
<th>Adults with incurable advanced illness who may not recover and are thought likely to die in the coming hours or days</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population not covered</td>
<td>Patients under the age of 18 years</td>
</tr>
<tr>
<td></td>
<td>Patients not likely to die from an incurable advanced illness in the coming hours or days</td>
</tr>
<tr>
<td>Healthcare setting</td>
<td>Patients in their usual place of residence</td>
</tr>
<tr>
<td></td>
<td>Primary and community care</td>
</tr>
<tr>
<td></td>
<td>Secondary and tertiary care including acute hospitals and mental health trusts</td>
</tr>
<tr>
<td></td>
<td>Hospice or specialist palliative care unit</td>
</tr>
<tr>
<td>Topics included</td>
<td>Provision of oral fluids and basic mouth care</td>
</tr>
<tr>
<td></td>
<td>Assessment and decision making relating to the use of clinically assisted hydration (CAH)</td>
</tr>
<tr>
<td></td>
<td>Risks and benefits of CAH</td>
</tr>
<tr>
<td></td>
<td>Practical advice re CAH</td>
</tr>
<tr>
<td></td>
<td>Education and training for healthcare professionals</td>
</tr>
<tr>
<td>Topics not covered</td>
<td>Detailed advice re mouth care, assessment of mental capacity, use of documentation</td>
</tr>
</tbody>
</table>
Section 3: Methods

➤ The guideline is based on the AGREE II criteria which can be found in detail in the Cheshire and Merseyside Palliative and End of Life Care Network Audit Group Guideline Development Manual.³

3.1 Clinical Questions & Interventions

➤ Clinical questions were derived from the previous guidance published in 2009. These were refined by the Guideline Development Group which has authored this guideline. The clinical question used to guide the literature review in PICO (Patient, Intervention, Control and Outcome) format is:

- In patients at the end of life (i.e. last hours or days) what is the evidence for the use of clinically assisted hydration to improve comfort and symptom control?

3.2 Outcomes

- To maximise patient comfort by providing safe, timely and effective use of clinically assisted hydration when indicated for patients in the last days or hours of life through:
  - improved knowledge of the use of clinically assisted hydration including decision making, assessment, understanding of risks and benefits, and administration.
  - promotion of education and training for all staff involved in the use of clinically assisted hydration to develop knowledge, skills and behaviours.

3.3 Literature Search

➤ Systematic electronic database searches were done to find potentially relevant articles. Ovid MEDLINE, EMBASE and Cochrane databases were searched in March 2015. A full explanation of the search strategy, results and appraisal of evidence can be found on the Cheshire and Merseyside Palliative and End of Life Care Network Audit Group Website.¹¹ Grading of level of evidence and recommendations follows the Cheshire and Merseyside Palliative and End of Life Care Network Audit Group Guideline Development Manual and uses SIGN criteria.³

Section 4: Guideline Recommendations

4.1 Provision of Oral Fluids
The provision of oral fluids forms part of basic patient care and where possible patients should be encouraged to take sips of fluids. Oral fluids should not be stopped or withheld from persons in the last hours / days of life without explicit documentation of patient choice or best interest decision making.\textsuperscript{1} [Level 4]

Oral hydration should be provided taking into account any swallowing difficulties, risk of aspiration and patient preference.\textsuperscript{4} [Level 4]

4.2 Mouth Care

Regular mouth-care should be performed and documented as part of the basic care for persons in the last hours or days of life, whether CAH is considered or not.\textsuperscript{4} [Level 4]

Assessment of the condition of the mouth should be undertaken and documented at least daily. Mouth-care should be provided and documented 2-4 times daily. For details of good mouth-care see Guidelines on Oral Care in Patients with Advanced Cancer.\textsuperscript{4} [Level 4]

Those important to the patient should be encouraged to participate in the provision of mouth-care as they feel comfortable.\textsuperscript{4} [Level 4]

4.3 Assessment and Decision Making Regarding CAH

Blanket policies regarding the use of CAH in persons in the last hours or days of life are unhelpful and not ethically justified. Decisions should be individualised to each patient and reviewed daily by the clinical team.\textsuperscript{2} [Level 4]

It is important to recognise that a person’s cultural / spiritual background may have an impact on their views regarding CAH. The clinical team caring for the person must explore and understand these views.\textsuperscript{2} [Level 4]

Decisions regarding CAH should involve assessment of the presence or absence of: thirst, respiratory tract secretions, fluid overload (i.e. pulmonary oedema, peripheral oedema, ascites, pleural effusions) and clinical dehydration.\textsuperscript{2} [Level 3]

All decisions regarding CAH should be made in accordance with the principles of the Mental Capacity Act 2005.\textsuperscript{5} [Level 4]

Discussions and decision making about the use of CAH must include communication with the patient where possible, those important to them and the multi professional team caring for them.\textsuperscript{2} [Level 4]

Clinical teams may wish to consider using an end of life care documentation tool to assist in the documentation of decisions about the use of CAH.\textsuperscript{2} [Level 4]
4.4 Risks and Benefits of CAH

- Although robust evidence regarding the benefits, burdens and risks of CAH in the dying phase is lacking, potential risks and benefits should be discussed with patients and families. [2,6] [Level 1-]

- There is weak evidence that CAH may worsen oedema, ascites and pleural effusions in patients with advanced cancer. [7] [Level 3]

- There is also weak evidence to suggest that CAH may reduce myoclonus and sedation at the end of life, as well as improving chronic nausea. [8] [Level 3]

- There is no strong evidence to suggest that CAH causes or worsens respiratory tract secretions in patients in the last hours or days of life. Additionally, there is no evidence that CAH either prolongs life or the dying phase. [2] [Level 4] Table 2 summarises the potential risks and benefits of CAH.

<table>
<thead>
<tr>
<th>Potential Benefits of CAH</th>
<th>Evidence</th>
<th>Potential Risks of CAH</th>
<th>Evidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Improvement in chronic nausea</td>
<td>Weak</td>
<td>Worsening/development of peripheral oedema</td>
<td>Weak</td>
</tr>
<tr>
<td>Reduction in myoclonus</td>
<td>Weak</td>
<td>Worsening/development of ascites</td>
<td>Weak</td>
</tr>
<tr>
<td>Reduction in level of sedation</td>
<td>Weak</td>
<td>Worsening/development of pleural effusion</td>
<td>Weak</td>
</tr>
</tbody>
</table>

4.5 Clinically Assisted Hydration

- Following careful discussion with patients and those important to them, a time-limited trial of CAH may be appropriate in some patients, particularly in those who are experiencing thirst. [2] [Level 4]

- A recommended regimen would be at least 1 litre over 24 hours with consideration of reduction where severe malnourishment is present. [10] Daily assessment and documentation of benefit or harm should be made. [2] [Level 4]

- There is no evidence that the supplementation of fluids with potassium or reassessment of blood tests is of benefit for patients in the last hours or days of life. [2] [Level 4]

- If a decision to discontinue CAH is made, the clinical reasoning for this should be discussed with the patient (where possible) and those important to them. Both the discussion and decision should be clearly documented. [2] [Level 4]
4.6 Education and Training

- It is essential that healthcare professionals working in teams caring for persons in the last hours or days of life have a basic understanding of the physiology of fluid and electrolyte balance. They should be trained in assessing patient needs, prescribing and administering parenteral fluids and evaluating and documenting changes as appropriate to their role. \(^{10}\) [Level 4]

Section 5: Standards

1. The need for CAH in persons in the last hours or days of life should be reviewed daily. \(^{2}\) [Grade D]

2. Decisions surrounding the use of CAH in persons in the last hours or days of life should involve the patient, those important to them and the multi-professional team. The outcomes of these discussions should be clearly documented. \(^{2}\) [Grade D]

3. If CAH is used in the dying phase, a rate of at least 1 litre of fluid over 24 hours intravenously, subcutaneously or via a PEG/PEJ/RIG is the recommended regimen unless clinically contraindicated. \(^{10}\) [Grade D]

4. Organisations caring for persons in the last hours or days of life should ensure that all staff involved in the delivery of that care are competent in the assessment and delivery of CAH. \(^{10}\) [Grade D]

Applications and Implications

These standards and guidelines are applicable to all healthcare professionals involved in the clinical management of adults in the last days or hours of life in any care setting including the community. The emphasis remains on supporting the dying person to drink for as long as this is possible and wished for, as well as ensuring regular mouth care is provided.

This work complements the 2015 NICE Guidelines ‘Care of dying adults in the last days of life’ \(^{2}\) in advocating an individualised approach to this aspect of care, and daily review of hydration status including assessment of the need for clinically assisted hydration. In addition, it is specified that as well as taking the views of the patient and those close to them into account, decision-making should be multi-professional.

Both this guidance, and the NICE Guideline \(^{2}\) emphasise the importance of discussing the benefits and burdens of clinically assisted hydration with the patient and those important to them. However more robust evidence about the benefits,
burdens and risks of clinically assisted hydration in the dying phase is needed if this is to be meaningfully achieved.

If clinically assisted hydration is indicated in the dying patient, extrapolation from the NICE Guideline ‘Intravenous Fluid Therapy in Adults in Hospital’ (2013)\textsuperscript{10} has allowed the suggestion that a volume of 1 litre of fluid over 24 hours should be used. Further research into the biology of dying, including mechanisms of fluid regulation in the dying patient is necessary for this recommendation to be refined and individualised.

All health care professionals caring for dying patients should have an understanding of the physiology of fluid and electrolyte balance, as well as competence in the assessment of hydration needs in a dying patient, prescribing and administering parenteral fluids and evaluating and documenting changes. This requirement will have significant implications for training and development programmes across all settings (especially hospice and community services).

Acknowledgments and Declarations of Interest

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Updated Guidance and Grading Recommendations: AS, NS, AG, CC, EL, CH, AC. Standards. AS, NS, EL, CH, AC.
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Review Date

The guideline will be reviewed three years after publication as outlined in the Cheshire and Merseyside Palliative and End of Life Care Network Audit Group Guideline Development Manual 2016. 3

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1. Leadership Alliance for the Care of Dying People. One Chance to Get it Right. London, 2014. [Link]


11. Cheshire and Merseyside Palliative and End of Life Care Audit Group. Clinical Standards and Guidelines.[Link]