Guideline Name: Artificial Nutrition and Hydration

Background

Palliative care patients frequently are unable to eat or drink enough to maintain an adequate state of nutrition or hydration. Towards the end of life, this is a normal part of the dying process and it is usually inappropriate to give artificial nutrition or hydration in these circumstances. Palliative Care experience would suggest that most patients die peacefully without the need for artificial nutrition or hydration and this is standard palliative care practice.¹

There are however, circumstances where artificial nutrition and/or hydration are appropriate and the aim should be to improve the overall condition of the patient². The modes of delivery are detailed below.

Modes of Artificial Nutrition and Hydration include:

- Subcutaneous Infusions (SCI)
- Intravenous Infusions (IVI)
- Total Parenteral Nutrition (TPN)
- Nasogastric Tube (NGT)
- Percutaneous Endoscopic Gastrostomy (PEG)
- Radiologically Inserted Gastrostomy (RIG)

Indications for artificial nutrition and hydration:

1. **Neurodegenerative Conditions such as Motor Neurone Disease (MND), Multi-system Atrophy (MSA) and Multiple Sclerosis (MS)**

   There is growing consensus that PEG feeding improves quality of life and survival in MND. It has been postulated to improve nutrition, reduce fatigue, reduce effort and time spent in eating and reduce fears of choking. PEG is more successful if instigated early before respiratory function is compromised and placement of a RIG may be safer than PEG if respiratory function is already affected.
   
   - Contact Neurologist and Community Dietician to discuss pros and cons of artificial feeding.
   - If agreed then they will normally arrange procedure via Kings College Hospital, London.

2. **Head and Neck Tumours**

   This patient group can often experience problems with swallowing long before the end of life situation due to local effects of the tumour. Artificial hydration and nutrition may well prolong survival in these circumstances and consideration should be given to the insertion of a PEG.
   
   - Contact Oncologist to discuss.
   - These procedures can usually be done locally.
3. **Acute episode of inability to swallow** (e.g. acute episode of nausea and vomiting, bowel obstruction, oesophageal ulceration).

To support the patient through a potentially reversible acute episode, it would be appropriate to start an IV or SC infusion of fluids while attempting to treat the condition.

In cases of established bowel obstruction where there are no further therapeutic interventions planned, hydration should only be given for symptomatic relief.

- Start IV/ SC fluids
- Consider other therapeutic interventions such as stenting

4. **Symptoms of dehydration**

- Patients often report symptoms of dehydration e.g. dry mouth or thirst. Current evidence suggests that these symptoms are best managed with good mouth care, rather than artificial hydration although there have been studies that show an improvement in some symptoms (myoclonus and sedation) with hydration vs. placebo.\\(^3\\) The intended outcome of a trial of IV or SC fluids should be clear before a trial is commenced. Start trial of IV or SC fluids and review daily.
- Explain to patient and family this will be stopped if side effects are experienced.

5. **Request of patient or family**

Towards the end of life, patients often find it difficult to swallow food or fluid. This is often a very emotional time for their relatives and requests for fluids or nutrition are often made at this time. An explanation of the pros and cons of artificial hydration/ nutrition is needed but sometimes it is helpful to give a trial of SC fluids to allow the family time to come to terms with the situation. Daily review is needed and relatives should be warned that if any side effects are seen (e.g. oedema, respiratory secretions) then fluids will be stopped.

- Start trial of IV or SC fluids and review daily.
- Explain to patient & family this will be stopped if side effects are experienced.

6. **PEG in Dementia**

In a review of enteral feeding in patients with dementia, there was inconclusive evidence that PEG feeding was effective in improving quality of life, maintaining skin integrity, preventing aspiration pneumonia, in improving functional status or extending life\\(^4,5\\). Patients with advanced dementia have a higher rate of mortality following PEG insertion.

**Ethical Issues:**

- A blanket policy of whether to give ANH or not is unethical. Each patient must be treated as an individual case.\\(^2\\) The intended outcome of a trial of IV or SC fluid should be clear to everyone before starting.
- Refer to the Mental Capacity Act 2005\\(^6\\).
  * Assess whether the patient has capacity
  * If not, find out if there is an Advance Decision to Refuse Treatment
  * Consult any Lasting Power of Attorney or Court Appointed Deputy
  * Ascertain the patient’s wishes from family or friends or consult an Independent Mental Capacity Advocate
  * Weigh up the possible benefits and risks of ANH
- Act in the patient’s best interests
- Try to accommodate the patient’s or family’s wishes
- There is ethically no difference between withholding and withdrawing ANH therefore a trial of hydration is often of benefit to both patient and family\(^7\). Clinicians need to make a decision based on the perceived benefits and harms of medically assisted nutrition and hydration in individual patient circumstances\(^8\).

**Management of Artificial Hydration on the In-Patient Unit:**

General measures for patients with feeding tubes / subcutaneous or intravenous lines:

- Start fluid balance chart
- Monitor infusion site for:
  - Redness
  - Pain / tenderness
  - Inflammation
  - Fluid leakage
  - Abscess formation
  - Bleeding / bruising
- Monitor patient for signs of fluid overload
- Check site at least every 6 hours

**Subcutaneous Fluids**

- This would usually be first line for hydration in palliative care.
- Maximum volume of fluid given SC would be 1L / 12 hrs.
- Only to be administered by gravity. Do not use electronic pump e.g. Baxter pump
- Best given overnight if possible to minimise interference for patient.
- Given with standard IV giving set connected to subcut butterfly via luer lock connector.
- Rotate site to prevent tissue damage.
- Do not site needle in:
  - lymphoedematous tissue
  - recently irradiated skin
  - area with a rash of any kind
  - peripheral limbs (below knee or elbow)

**Intravenous Fluids**

- Used in cases of electrolyte imbalance or hypotension
- Usual rate would be 1L / 8hrs but depends on clinical judgement
- Use of electronic pump is preferable to regulate rate of administration
- Prolonged IV fluids use needs regular checking of electrolytes.
- Given via IV cannula or central line if applicable

**TPN**

- Only used in hospital.
- Cannot routinely be administered at Hospice in the Weald (HITW) due to intensive blood monitoring.

**NGT**

- Would not be used for artificial feeding at HITW.
References:


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