# 3.7 NUTRITION AND HYDRATION

## INTRODUCTION

Decreased oral intake is common in patients with advanced disease and terminal illness. With the terminally ill, this is often part of the natural course of dying.

In certain situations, assisted nutrition and hydration is considered and could be through different routes such as:

- Enteral routes - nasogastric, nasoduodenal (post-pyloric), naso-jejunal, feeding gastrostomy, feeding jejunostomy, percutaneous endoscopic gastrostomy (PEG), percutaneous endoscopic jejunostomy (PEJ) or a radiologically inserted gastrostomy (RIG) tube
- Parenteral routes - subcutaneous, intravenous

It is of great importance to ensure that patient and family are at the centre of planning and decision making when artificial nutrition or hydration is considered.

Assisted hydration may cause/exacerbate - vomiting, breathlessness, respiratory tract secretions, ascites, pleural effusion, pulmonary oedema and peripheral oedema (as a result of fluid overload, particularly in patients with cardiac compromise).

## ASSESSMENT

- Assessment must determine the underlying aetiology of malnutrition and dehydration, effectiveness of treatment and impact on quality of life for the patient and their family (***refer to the guideline - Symptom Assessment***)
- **Assessment of dehydration**
  - Assessment of symptoms of dehydration - thirst, dry mouth
  - Assessment for associated symptoms - nausea/vomiting, fatigue, headache, cramps, decreased urinary output, and irritability
  - Assessment of signs of dehydration - dry skin, dry mucosa, dry furrowed tongue, sunken eyes, postural or orthostatic hypotension, drowsiness, disorientation
- **Assessment of nutritional status**
  - Assess patient's view of nutritional status
  - Assess for weight loss and evidence of muscle wasting
  - Assess whether clothes and jewellery have become loose

- Assess history of decreased food intake, reduced appetite or swallowing problems and underlying disease or psycho-social/physical disabilities likely to cause weight loss
- Assess if the patient is acutely ill with no nutritional intake or likelihood of no intake for more than 5 days
- Simple measurements such as arm circumference would be useful to monitor nutritional changes or the effect of treatment
- Measurements such as percentage of weight loss, BMI could be used when appropriate

- **Assessment of dietary intake**
  - Diet history including changes in diet during the recent months - quantity, aversion to certain foods, changes in taste, consistency of food
  - The importance of nutrition to the patient as part of care
  - Any uncontrolled symptoms - e.g. pain, nausea and vomiting, breathlessness
  - Nutritional supplements - compliance issues, patient's view on nutritional supplements
  - Assess whether the patient is able to take food, feed himself
  - Assess the availability of caregiver/family member to prepare food/feed the patient
  - Assess caregiver (to be assessed both from the patient and carer perspective)
    - Force feeding
    - Caregiver stress
    - Enteral feeding issues

## MANAGEMENT

### General Principles

- The primary aim of the enteral tube feeding is to:
  - Avoid further loss of body weight
  - Correct significant nutritional deficiencies
  - Rehydrate the patient
  - Try to stop/reduce the related deterioration of quality of life of the patient due to inadequate oral nutritional intake
- Patients, who want to eat and drink and are able to do so safely, should be provided with food and drink
- Patient preferences should be accorded primary importance and patient/family concerns should be assessed and addressed
- Social and cultural values on providing food and drink should be assessed and addressed

- If the patient is competent to make his/her own decisions, then discuss with the patient on the benefits, risks and burdens of assisted hydration/nutrition and then come to a shared decision
- If the patient lacks capacity to decide, consider advance directive on assisted hydration and nutrition if available
- If not, then discuss with the surrogate decision maker on what the patient would have preferred
- Symptom management - ***refer to the guidelines on specific Symptom management***

**Dehydration**

- When there is evidence of low fluid intake (less than 750mL) and evidence of clinical dehydration, explore the concerns of the individual
- When a potentially reversible cause is identified:
  - Assisted fluid therapy should be initiated until the reversible cause is corrected or until the patient is able to take orally
  - If the cause could not be reversed, then review the situation
- When a potential reversible cause is not identified:
  - Consider a time limited goal-centred therapeutic trial of assisted fluids
  - If the goals are not achieved within the time stipulated, then the therapeutic trial should be ceased
- When a cause is irreversible, and patient is at end of life:
  - Weigh the benefits, risks and burdens of assisted fluids
  - If cognitive impairment/delirium is secondary to dehydration, then consider time limited goal-centred therapeutic trial of assisted fluids
  - In such situations, subcutaneous route is the preferred route of administration - ***refer to the guideline - Subcutaneous fluids***

**Nutrition**

- Dietician advice – in the context of patient condition and an understanding of a patient's nutritional difficulties, requirements and compliance issues
- Nutritional supplements - if patient is willing and is able to tolerate
- For improvement of appetite - ***refer to the guideline - Anorexia-Cachexia***

**Explanation and education**

- Explain to the patient and family that loss of appetite and decreased oral intake are part of the progression of disease and the dying process
- Explain that energy requirement of a patient with progressive disease and/or near end of life is low

- Explain that in dying patients, artificial fluids and nutrition can be of limited value, if any and may prolong and add morbidity to the process of dying
- Explain to patient and family that initiation involves technical procedures that may be unpleasant for the patient and can lead to significant complications such as abdominal distension, vomiting, breathlessness, etc
- Encourage the family to give appropriate care such as skin care and oral care, talk with the patient, or simply be at the bedside as measures to keep the patient comfortable
- Explain to the family the risks of force feeding and educate the family to avoid force feeding
- Explain and educate the patient on enteral nutrition
    - Administration through the feeding tube
    - Maintaining the patency of feeding tube
- Support the carers through the entire process

**Stopping or withdrawing artificial nutrition and hydration**

- Decisions on artificial nutrition and hydration should be in the best interest of the patient and should be individualised
- Healthcare team should involve the patient/family in shared decision making on artificial nutrition and hydration
- Decisions on artificial nutrition and hydration should be based on whether the intervention is of benefit to the patient
- Withdrawing artificial nutrition and hydration should be considered and a shared decision should be made in the following scenarios:
    - burdens outweigh the benefits
    - patient is in the terminal phase of life
- Patient/family should be assured that the patient would be kept comfortable and informed of the prognosis and the likely events to follow during the course of illness
- Ethical considerations are recommended when making difficult decisions surrounding artificial nutrition and hydration

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