HYDRATION MANAGEMENT

VERSION No	2
REVIEWED BY	Clinical Lead (RQ)
NUMBER OF PAGES	6

Introduction

Healthcare professionals should ensure that all people who need nutrition support receive coordinated care from a multidisciplinary team. That food and fluid of adequate quantity and quality are provided in an environment conducive to eating. Appropriate support, for example, modified eating aids, for people who can potentially chew and swallow but are unable to feed themselves is provided.

Procedure

- At assessment, screen for malnutrition and the risk of malnutrition using the Malnutrition Universal Screening Tool (MUST)
- only staff with appropriate skills and training should carry out the assessment
- screening should be repeated weekly for individuals when there is clinical concern
- screening should assess body mass index (BMI) and percentage unintentional weight loss and should also consider the time over which nutrient intake has been unintentionally reduced and/or the likelihood of future impaired nutrient intake using the MUST
- Observe and monitor for the following classic signs and symptoms as an initial assessment for dehydration:
  - Dry mucous membranes – cracked lips, furrowed tongue, sunken eyes, decreased salivation
  - Decreased skin turgor – test on chest or forehead, pinched skin "holds" up to 30 seconds
  - Skin breakdown
  - Rapid weight loss in less than a week – accuracy of monthly weights is absolutely necessary
  - Rapid pulse
  - Weakness
  - Decrease in blood pressure
  - Decreased urine output
  - Changes in mental status – dizziness, confusion
  - Constipation
  - Diarrhoea
- Support should be considered in people who are malnourished, as defined by any of the following:
- a BMI of less than 18.5 kg/m2
- unintentional weight loss greater than 10% within the last 3–6 months
- a BMI of less than 20 kg/m2 and unintentional weight loss greater than 5% within the last 3–6 months.
- have eaten little or nothing for more than 5 days and/or are likely to eat little or nothing for the next 5 days or longer
- have a poor absorptive capacity, and/or have high nutrient losses and/or have increased nutritional needs from causes such as catabolism
- Potential swallowing problems must be taken into account.
- When starting or stopping nutrition support should obtain consent from the individual if he or she is competent and act in the individual's best interest if he or she is not competent to give consent, following the Mental Capacity Act 2005 Code of Practice.

- Ensure that people having nutrition support, and their carers are kept fully informed about their treatment and that they also have access to appropriate information and be given the opportunity to discuss diagnosis and treatment options
- the GP will review the prescription according to the person's progress,
- Nutrition support should be cautiously introduced in seriously ill or injured people requiring enteral tube feeding or parenteral nutrition. It should be started at no more than 50% of the estimated target energy and protein needs. It should be built up to meet full needs over the first 24–48 hours according to metabolic and gastrointestinal tolerance. Full requirements of fluid, electrolytes, vitamins and minerals should be provided from the outset of feeding
- People who have eaten little or nothing for more than 5 days should have nutrition support introduced at no more than 50% of requirements for the first 2 days, before increasing feed rates to meet full needs if clinical and biochemical monitoring reveals no refeeding problems.
- People who meet the criteria in the box below should be considered to be at high risk of developing refeeding problems

Criteria for determining people at high risk of developing refeeding problems	
Individual has one or more of the following	⚠ BMI less than 16 kg/m2 ⚠ unintentional weight loss greater than 15% within the last 3–6 months ⚠ little or no nutritional intake for more than 10 days ⚠ low levels of potassium, phosphate or magnesium prior to feeding.
Or individual has two or more of the following	⚠ BMI less than 18.5 kg/m2 ⚠ unintentional weight loss greater than 10% within the last 3–6 months ⚠ little or no nutritional intake for more than 5 days ⚠ a history of alcohol abuse or drugs including insulin, chemotherapy, antacids or diuretics

- People at high risk of developing refeeding problems should be cared for by healthcare professionals who are appropriately skilled and trained and have expert knowledge of nutritional requirements and nutrition support.

Monitoring of nutrition support

- Staff should review the indications, route, risks, benefits and goals of nutrition support at regular intervals. The time between reviews depends on the individual, duration of nutrition support. Intervals may increase as the individual is stabilised on nutrition support.
- People having parenteral nutrition in the community need regular assessment and monitoring. This should be carried out by home care specialists and by experienced hospital teams (initially at least weekly), In addition, they should be reviewed at a specialist hospital clinic every 3–6 months. Monitoring should be more frequent during the early months of home parenteral nutrition, or if there is a change in clinical condition
- People having oral nutrition support and/or enteral tube feeding in the community should be monitored by healthcare professionals with the relevant skills and training in nutritional monitoring. This group of people should be monitored every 3–6 months or more frequently if there is any change in their clinical condition.
- If long-term nutrition support is needed individuals and carers should be trained to recognise and respond to adverse changes in both their well-being and in the management of their nutritional delivery system.

Protocol for nutritional, anthropometric and clinical monitoring of nutrition support taken from NICE Guidelines CG32		
PARAMETER	**FREQUENCY**	**RATIONALE**
NUTRITIONAL		
Nutrient intake from oral, enteral or parenteral nutrition (*including any change in conditions that are affecting food intake*)	Daily initially, reducing to twice weekly when stable	To ensure that individual is receiving nutrients to meet requirements and that current method of feeding is still the most appropriate. To allow alteration of intake as indicated
Actual volume of feed delivered	Daily initially, reducing to twice weekly when stable	To ensure that individual is receiving correct volume of feed. To allow troubleshooting
Fluid balance charts (enteral and parenteral)	Daily initially, reducing to twice weekly when stable	To ensure individual is not becoming over/under hydrated
ANTHROPOMETRIC (MEASUREMENTS)		
Weight	Daily if concerns regarding fluid balance, otherwise weekly reducing to monthly	To assess ongoing nutritional status, determine whether nutritional goals are being achieved and take into account both body fat and muscle
BMI	Start of feeding and then monthly	
Mid-arm circumference	Monthly, if weight cannot be obtained or is difficult to interpret	
Triceps skinfold thickness	Monthly, if weight cannot be obtained or is difficult to interpret	
GASTRO INTESTINAL FUNCTION		
Nausea / vomiting	Daily initially, reducing to twice weekly	To ensure tolerance of feed
Diarrhoea	Daily initially, reducing to twice weekly	To rule out any other causes of diarrhoea and then assess tolerance of feeds
Constipation	Daily initially, reducing to twice weekly	To rule out other causes of constipation and then assess tolerance of feeds
Abdominal distension	As necessary	Assess tolerance of feed
ENTERAL TUBE – NASALLY INSERTED		
Gastric tube position (*pH less than or equal to 5.5 using pH paper – or noting position of markers on tube once initial position has been confirmed*)	Before each feed begins	To ensure tube in correct position
Nasal erosion	Daily	To ensure tolerance of tube
Fixation (is it secure?)	Daily	To help prevent tube becoming dislodged
Is tube in working order (all pieces intact, tube not blocked/kinked)?	Daily	To ensure tube is in working order
GASTROSTOMY OR JEJUNOSTOMY		
Stoma site	Daily	To ensure site not infected/red, no signs of gastric leakage

Tube position (length at external fixation)	Daily	To ensure tube has not migrated from/into stomach and external over granulation
Tube insertion and rotation (gastrostomy without jejunal extension only)	Weekly	Prevent internal overgranulation / prevention of buried bumper syndrome
Balloon water volume (balloon retained gastrostomies only)	Weekly	To prevent tube falling out
Jejunostomy tube position by noting position of external markers	Daily	Confirmation of position
PARENTERAL NUTRITION		
Catheter entry site	Daily	Signs of infection/inflammation
Skin over position of catheter tip (peripherally fed people)	Daily	Signs of thrombophlebitis
CLINICAL CONDITION		
General condition	Daily	To ensure that individual is tolerating feed and that feeding and route continue to be appropriate
Temperature/blood pressure	Daily initially, then as needed	Sign of infection/fluid balance
Drug therapy	Daily initially, reducing to monthly when stable	Appropriate preparation of drug (to reduce incidence of tube blockage). To prevent/reduce drug nutrient interactions
LONG / SHORT - TERM GOALS		
Are goals being met?	Daily initially, reducing to twice weekly and then progressively to 3–6 monthly, unless clinical condition changes	To ensure that feeding is appropriate to overall care of individual
Are goals still appropriate?	Daily initially, reducing to twice weekly and then progressively to 3–6 monthly, unless clinical condition changes	To ensure that feeding is appropriate to overall care of individual

It is important that:

- Each of the common signs and symptoms be assessed independently to determine the diagnosis of dehydration
- Monitor individual's response and outcome to the plan of care
- Develop interventions to address individual's hydration as needed
- Encourage individual and family participation in the plan of care
- Evaluate, document individual outcome and update care plan

Risk Reduction for Dehydration:

- Provide fluids consistently throughout the day and when awake at night
- Ensure the individual receives a daily intake of a minimum of 1500 ml of free fluids in 24 hours
- Offer a variety of fluids, make water readily available
- Schedule additional fluid rounds other than snack time
- Use appropriate assistive device to better suit an individual's ability to hold a cup or swallow
- Offer a drink at the end of each meal to cleanse and refresh the mouth

- Monitor for fluid loss during hot weather and offer replacement fluids

All healthcare professionals who are directly involved in individual care will receive education and training, relevant to their post, on the importance of providing adequate nutrition.

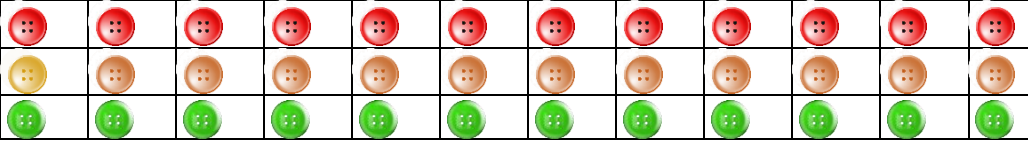
- Education and training should cover:
- nutritional needs and indications for nutrition support
- options for nutrition support (oral, enteral and parenteral)
- ethical and legal concepts
- potential risks and benefits
- when and where to seek expert advice

In this home we have developed a Hydration assessment (see overleaf, form ADL7d[1]), which assesses how much support a person requires to stay adequately hydrated based on their physical (such as dexterity) and mental (i.e. if the person has a Dementia) abilities as well as psychological condition (i.e. if the person is worried about incontinence). Those at high risk of dehydration have their fluid intake monitored.

Once the risk is assessed, staff use a traffic-light-colour-coded coasters, for each individual to remind staff members at all times the people who require more frequent encouragement and support to stay adequately hydrated

Further Guidance

NICE guidelines [CG32] Published date: February 2006 Name: Organisation of nutrition support in hospital and the community

ADL 7d[1]	SERVICE USER NAME		HYDRATION SCREENING TOOL											
ASSESSMENT CRITERIA AND IDENTIFYING THE LEVEL OF SUPPORT NEEDED		**SCORE**	**JAN**	**FEB**	**MAR**	**APRIL**	**MAY**	**JUNE**	**JULY**	**AUG**	**SEPT**	**OCT**	**NOV**	**DEC**
Does the person lack mental capacity to understand the need for hydration?		YES 2												
		SOME 1												
		NO 0												
Does the person forget to drink fluids?		YES 2												
		SOME 1												
		NO 0												
Is the person depressed or have a history of depression?		YES 2												
		SOME 1												
		NO 0												
Does the person fear of incontinence due to fluid intake?		YES 2												
		SOME 1												
		NO 0												
Does the person have swallowing difficulties and is under the care of SALT team?		YES 2												
		SOME 1												
		NO 0												
Is thickener required?		YES 2												
		NO 0												
Does the person have dexterity difficulties to hold a glass / cup / beaker filled with fluid?		YES 2												
		SOME 1												
		NO 0												
Does the person lack the ability / physical strength to lift and bring a glass / cup / beaker filled with fluid safely to the mouth to drink?		YES 2												
		SOME 1												
		NO 0												
Does the person need encouragement to drink adequate quantities of fluids?		YES 2												
		SOME 1												
		NO 0												
Does the person require assistance / feeding with fluids?		YES 2												
		SOME 1												
		NO 0												
FLUID INTAKE	≥ 1,600 ML DAILY	0												
	≥ 1,200 ML AND ≤ 1,600 ML DAILY	1												
	≥ 800 ML AND ≤ 1,200 ML DAILY	2												
	≤ 600 ML DAILY	3												
	Takes small sips, refuses to take fluids	4												
TOTAL SCORE	**HIGH RISK**	**12 ≤ 24**												
	MODERATE / MEDIUM RISK	**1 ≤ 11**												
	LOW RISK	**= 0**												
COLOUR OF THE COASTER (*looking like a big button*) TO BE USED BY STAFF TO ALERT AND REMIND STAFF TO THE HYDRATION NEEDS OF THE PERSON AND SUPPORT REQUIRED														
ADDITIONAL INFORMATION / COMMENTS														
DATE OF ASSESSMENT														
INITIALS OF RGN UNDERTAKING THE ASSESSMENT														