65.2 IDENTIFYING AND MANAGING ADULT PATIENTS AT RISK OF UNDER NUTRITION AND DEHYDRATION IN HOSPITAL

Target Audience: All nursing and clinical staff, Sodexo, Medirest catering staff

1. Introduction

30% of people admitted to care settings are malnourished (Elia 2015). This, combined with acute illness or a long term health condition, means that a lot of patients do not feel like eating and drinking. In a busy clinical environment, this can prove a real challenge for healthcare professionals.

It is essential that all patients receive adequate food and drink (NMC 2015). Whilst many will be able to manage independently, there are some patients who will need help. Good nutritional care is paramount to recovery and improved outcomes such as shortening length of stay.

Recognising and treating dehydration in hospital patients is necessary due to the adverse outcomes associated with this condition. Development of dehydration post hospital admission can be a measure of quality of care (Pash and Hashemi 2014). Mild dehydration can result in headaches, fatigue and reduced physical and mental performance. Extreme dehydration is very serious and can be fatal (Benelam and Wyness 2010).

It is therefore imperative that patients at risk are identified early and treatment starts to improve their nutrition and hydration. There is evidence to suggest that using the Red Tableware system such patients are identified easier. This can lead to improved nutritional care and can reduce the risk of malnutrition and complications associated with a delayed hospital stay (Age UK 2010).

Please note this is a general guideline which applies to those patients who are at risk of malnutrition and dehydration purely due to poor oral intake. For patients who need more clinical intervention and artificial nutrition/hydration due to underlying medical conditions refer to Guideline 357 Acute Kidney Injury and the Trust Nutrition Policy.

Definition of terms

- Malnutrition – "A state of nutrition in which a deficiency, excess or imbalance of energy, protein or other nutrients, including minerals and vitamins, causes measurable adverse effects on body function and clinical outcome" (RCP 2002). For the purpose of this guideline, malnourishment will refer to the undernourished patient.
- Dehydration – occurs when the body does not have enough water and electrolytes to carry out its normal functions and maintain a balance of fluids (Pash and Hashemi 2014).
- Nutrition Screening – nutrition screening tools used in this Trust for adults are the Malnutrition Universal Screening Tool (MUST) and the Spinal Nutrition Screening Tool (SNST).
- Red tableware – this refers to the red tray, red jug and beaker that will be used to identify patients at risk of under nutrition or dehydration.

2. Purpose

The purpose of this guideline is to identify patients at risk of under nutrition and dehydration. This will ensure that:

- The importance of speedy and accurate nutritional screening of vulnerable patients is highlighted so that they can have their nutritional needs met.
- Patients are given additional support at mealtimes and their hydration is reviewed.
- Relatives and members of the multidisciplinary team recognise that these individuals are at a high risk of under nutrition/dehydration and act accordingly.
- Ward staff prioritise the provision of food and nutrition at mealtimes.
- All staff recognise and implement the Trust Protected Mealtimes Policy.
- Nutrition and hydration is recognised as an important part of the patient's treatment.
- A holistic culture is adopted where nutrition and hydration are not 'dealt with' at three mealtimes a day but over a 24/7 period.

3. Implementation

Within 24 hours of admission the patient should be weighed and have a nutritional risk screening carried out (ref: Trust Nutrition Policy). General adult wards should use MUST (BAPEN 2003). Spinal wards use the SNST. Once the patient has been screened, the appropriate action plan must be carried out.

- If the patient score is a medium risk (1) (11 - 15 on SNST) or above, red tableware should be allocated to them throughout their stay or until they no longer need it. Weighing and screening should be repeated weekly.
- If despite implementation of the plan the patient continues to score 1, then the score should be adjusted to 2 and MUST action plan 2 instructions should be followed. If the patient has lost >2 kg since admission then they should be referred to a dietitian (if SNST is 11 - 15 or more then refer the patient to a dietitian).
- The red tableware should remain on the patient's bedside table for the length of their stay. A poster indicating its use should be put above the individual patient's bed. (See Appendix 1)
- Where possible mealtime should be a social occasion and thought should be given to how that can be achieved on the ward.
- All food and drink will be placed on the red tray.
- A red tray indicates that someone is at risk of under nutrition and is an important part of their clinical treatment. **It is the ward staff's responsibility to ensure that it is kept clean.** It should be wiped down with detergent wipe or put in the ward dishwasher where appropriate. On no account should it leave the ward.
- Red tableware should not be used as an indicator of an infected patient who is in a side room. If a patient has an infection and is at risk of under nutrition or dehydration that is the only time the red tableware should be used for them.
- The red jug and beaker indicates that someone is at risk of dehydration or needs help with drinking and is part of their clinical treatment. **It is the ward staff's responsibility to ensure that patients have their beakers filled at all times and help given as necessary.** How much the patient is drinking should be documented on the food and fluid chart.
- **The ward domestic/hostess does not clear or remove the red tray.**
- After meals and tea rounds, the trained nurse responsible for patients in his/her area with red crockery will:
  a. Ensure the patient has eaten and had a drink.
  b. Immediately record food and fluid intake on the food and fluid chart.
  c. Give supplement/fortified drink as indicated. Please only offer supplement or fortified drinks AFTER the patient has tried to eat their meal.
     - Patients who have red tableware should have this clearly indicated in their medical notes and the information should be included in the ward handover too.
     - If a patient is transferred to another ward/hospital a full handover should be given – including the patient needing to have their food and fluid intake monitored and most recent weight, weight history and nutrition screening score.

4. Cleaning

- The red jug and beaker should be cleaned and refilled at the same time as the standard jugs and glasses by the ward host but they should check with the nurse looking after that patient before removing it for cleaning and refilling.
- If a ward does not have a dishwasher, the red jugs should be sent down to the central kitchen to be cleaned and then be returned to the ward. Patients on these wards should have two red jugs and beakers allocated to them so that they have a red jug/beaker at all times. It is up to the individual ward how they ensure that they have their red tableware returned to them.
- Red trays should never leave the ward but should be checked and cleaned after every use.
- If a red tray is in an isolation room, it should stay in that room until the patient has been discharged and then cleaned as per infection control policy for infected items, i.e. cleaned with Chlor-Clean before being cleaned/reprocessed through a dishwasher.

5. Availability

Red tableware is available through E Procurement (EPROC) (see Appendix 4).

6. Other measures

One size does not fit all and some patients may need extra help with meeting their nutritional requirements.

- **Finger Foods**
  Finger foods are defined as foods that you can eat without using knives, forks or spoons. Older people who suffer with dementia are at especially high risk of malnutrition as they may struggle to eat using cutlery as their dementia progresses (Evans and Best 2015). Co-ordination difficulties can develop and hence the person may find picking up food and eating with their fingers easier to manage. Finger foods are foods that are easy to pick up with the fingers and eat without utensils. For many people with dementia this is preferable to having someone else 'feed'. It is a more dignified way of eating and offers the person greater control over their meals as they can choose what they eat from a plate [Alzheimer's Society, 2015]. This control can boost self-confidence around mealtimes which can help to improve wellbeing and overall food intake. Finger foods can also be eaten whilst standing or on the move, which is ideal for those people who tend to wander [Alzheimer's Society, 2015].

  Patients who have finger foods, will have them on a blue plate as the colour contrast has been shown to improve nutritional intake in these patients (Stone 2014).

  If a patient requires a finger food menu please liaise with ward dietitian and catering who will provide the Trust finger food menu which is available on all inpatient sites.

- **Extra snacks and food fortification**
  High Energy Choices
  To increase energy intake at mealtimes, patients can select from the higher energy choices on the menu. These are denoted by ED or E in SMH and WH. Patients may need to be prompted to make high calorie choices when possible.

  To help patients that find it hard to eat more make sure that snacks are frequently offered such as:
  - Bread and jam/butter
  - Cereal and fortified milk
  - Soup or Meritene® soup
  - Yogurt
  - Glass of milk
  - Cheese and crackers
  - Juice

- **Increasing the nutritional content of foods and fluids**
  Some everyday foods can also be 'enriched' or 'fortified' to add extra energy (kcalories).

  At ward level food fortification options are:
  - Order extra cheese to be added to, for example, jacket potato or mash

- Order double puddings and add custard/ice cream
- Use fortified milk – this is whole milk that has had milk powder added to it (Appendix 2 for recipe and details). Use this milk in ALL tea/coffee/hot chocolate/Horlicks®/ Ovaltine® as well as to make up porridge or cereal or simply as a drink. See Appendix 3 for some examples of foods fortified with milk powder.
- Melt butter/margarine on vegetables or potatoes, jacket potatoes or mash
- Add butter/margarine to puree meals

Oral Nutrition Support (ONS) - is widely available in hospital and will help patients meet requirements for protein, fluid, vitamins and minerals. In line with Nutrition Policy and Adult Oral Nutritional Support Guidelines these can be offered in line with MUST/SNST scoring – see Guideline 689.

7. Dehydration

Research indicates that the risk of illness and death amongst hospital patients may be influenced by whether or not they are adequately hydrated. It is everyone's responsibility to ensure that the patients in their care are adequately hydrated.

How much should a person drink?
The Food Standard Agency (2010) recommends 1.2 litres of fluid daily for healthy adults. However in hospital this amount may vary due to the patient's clinical condition.

Visual signs of dehydration

- Feeling thirsty and lightheaded
- A dry mouth
- Tiredness
- Dark coloured, strong smelling urine
- Passing less urine than normal

Any patient who displays these signs should be encouraged and assisted to drink. Offering small amounts of fluid regularly throughout the day may be easier for many patients than trying to take in a great amount all at once.

For those patients who cannot manage to lift a glass or have extremely limited mobility, the Hydrant is available to order through EPROC. See also Guideline 694 – Protocol for Use of Hydrant.

8. Consultation and ratification

The consultation for this guideline will include:

- Matrons
- Catering managers
- Trust-wide Nutrition Steering Committee
- Infection Control

9. Monitoring the effectiveness of the protocol

The effectiveness of the protocol will be audited annually through observational audit.

10. References

Benelam B, Wyness L. (2010) Hydration and health: a review. British Nutrition Foundation. Nutrition Bulletin No 35 pp 3-25

The Eatwell Guide. Public Health England March 2016, updated February 2017: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/528193/Eatwell_guide_colour.pdf

Elia, M. (2015) The cost of malnutrition in England and potential cost savings from nutritional interventions (short version). BAPEN, NIRH. http://www.bapen.org.uk/pdfs/economic-report-short.pdf

Evans L, Best C. (2015) Managing malnutrition in patients with dementia. Nursing Standard. Vol 29 No 28. Pp 50 -57.

London Age UK (2010) Still Hungry to be Heard - in London https://www.ageuk.org.uk/brandpartnerglobal/londonvpp/documents/still_hungry_to_be_heard_report.pdf

Nursing & Midwifery Council. (2015). The code: Professional standards of practice and behaviour for nurses and midwives. https://www.nmc.org.uk/standards/code/

Pask E, Parikh N, Hashemi L. (2014) Economic Burden Associated with Hospital Post admission Dehydration. Journal of Parenteral and Enteral Nutrition Vol 38 Supplement2: November 2014 pp 58S-64S.

Stone L (2014) Eating/feeding issues in dementia. Improving the dining experience. End of Life Journal 2014 Vol4 No 1 pp1 -7

Appendices

Appendix 1: Red Tableware Poster
Appendix 2: Food Fortification Poster
Appendix 3: Food Fortification Recipe Sheet
Appendix 4: Ordering Details for Red Tableware

See also:

Guideline 172 Nutrition Policy
Guideline 243 Protected Mealtimes Policy
Guideline 357 Acute Kidney Injury
Guideline 689 Adult Oral Nutritional Support
Guideline 694 Protocol for Use of Hydrant

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Buckinghamshire Healthcare NHS Trust	

Appendix 1: Red Tableware Poster

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RED TABLEWARE IN USE HERE

This person requires extra help with eating and drinking and all food and fluid intake recorded. The tray is to be removed BY NURSING STAFF ONLY.

Appendix 2: Food Fortification Poster

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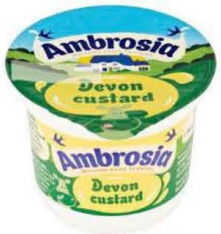
Food Fortification

Standard			Fortified
136 kcal 7g Protein		+ 1 heaped tbsp milk powder =	189 kcal 12 g Protein
255 kcal 6 g Protein		made with 150ml fortified milk =	310 kcal 11 g Protein
124 Kcal 4g Protein		+ 1 heaped tbsp milk powder =	177 kcal 9 g Protein

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Food Fortification

For patients on food fortification advice

Food	Quantity	Method	Usage
Milk*	1 pint (568 ml)	Whisk four tablespoons (or heaped dessert spoons) of dried skimmed milk powder into 1 pint (568 ml) of full fat milk.	In tea, as a drink, or in porridge
	1 beaker/ plastic cup (200 ml)	Stir 1 tablespoon (or heaped dessert spoon) of dried skimmed milk into a beaker of full fat milk.	1 drink
Porridge	1 portion	Either, use a small/tea cup (150 ml) of fortified milk made as above to 1 portion of porridge oats. **Or** Add 1 tablespoon of dried skimmed milk powder and a tea cup (150 ml) of full fat milk to 1 portion of porridge oats.	Breakfast or snack in the day or at night
Custard	1 packet (instant custard mix)	Make up custard according to instructions on the packet. Stir 3 tablespoons of dried skimmed milk powder into the custard.	Makes 3 - 4 servings of custard
	1 pot	Stir 1 tablespoon of dried skimmed milk powder into the custard pot.	

*If using **thickener**: Add the milk powder to the Resource® ThickenUp® Clear before mixing into the milk. Use quantity of thickener according to instructions elsewhere.

Nutrition and Dietetic Department: Ext.4825

Safe & compassionate care, every time

Appendix 4: Ordering Details for Red Tableware

RED TUMBLER

http://www.nisbets.co.uk/polycarbonate-tumbler/CB778/ProductDetail.raction

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RED JUG

http://www.nisbets.co.uk/kristallon-polycarbonate-jug/CE281/ProductDetail.raction

RED LID FOR JUG

http://www.nisbets.co.uk/kristallon-polycarbonate-lid/CE285/ProductDetail.raction

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TRAYS (3 sizes)

Small (345 x 265mm)

http://www.nisbets.co.uk/kristallon-tray/DP213/ProductDetail.raction

Medium (415 x 305 mm)

http://www.nisbets.co.uk/kristallon-foodservice-tray/P504/ProductDetail.raction

Large (450 x 350 mm)

http://www.nisbets.co.uk/kristallon-foodservice-tray/P510/ProductDetail.raction