

Supporting evidence-based practice in nutrition and hydration

KEY WORDS

- ▶▶ Dietitians
- ▶▶ Evidence
- ▶▶ Guidance
- ▶▶ Hydration
- ▶▶ Nutrition

Nutrition and hydration have a fundamental role in keeping skin healthy. Yet despite recognition by the National Institute of Health and Care Excellence (NICE, 2014) that deficiencies in diet are a risk for developing pressure ulcers and international guidance by the US National Pressure Ulcer Advisory Panel (NPUAP), European Pressure Ulcer Advisory Panel (EPUAP) and Pan Pacific Pressure Injury Alliance (PPPIA) to undertake nutritional assessment and screening to assess risk of malnutrition as part of pressure ulcer risk assessment (NPUAP, EPUAP, PPPIA, 2014), nutrition and hydration are frequently still not appreciated as a significant element of pressure ulcer prevention and management. In 2017, NHS Improvement brought together a team of dietitians with a special interest in pressure ulcer prevention and management to develop some practical resources to support clinical teams in improving the nutritional care that individuals at risk of pressure ulcers receive. This article provides the context for the development of these resources and suggests recommendations for future practice.

NHS Improvement launched the national Stop the Pressure programme of work in November 2016, with the aim to create a significant culture shift and eliminate avoidable pressure ulcers in acute, community and mental health provider settings. The launch of this programme aimed to build on the original Stop the Pressure campaign previously lead by the Midlands and East region.

At the beginning of this work 172 Trusts submitted improvement plans to meet this aim; however, it was evident that the link between nutrition and the development of pressure ulcers was not well identified in these plans. This led to the formation of a nutrition workstream within the national Stop the Pressure programme.

Dietitians were invited to be part of a Nutrition and Pressure Ulcer Task and Finish group with the aim of the group being to support the development of evidence-based nutritional guidance relating to the prevention and management of pressure ulcers across all care settings. The time-frame agreed for the task and finish group was four months.

THE SCOPE

Following initial discussions, and considering the allocated time-frame, the scope and deliverables of the group were agreed as the following:

- ▶▶ To provide nutrition and hydration key messages for the Stop the Pressure Programme
- ▶▶ To provide a concise, top-tips guide regarding the nutritional and hydration care
- ▶▶ To identify a series of case studies to represent and educate about the role of nutrition and hydration in pressure care and management.

In 2014, the 2nd edition of guidelines was published by the NPUAP, EPUAP, PPPIA (2014). They provide detailed evidence-based recommendations for the prevention and treatment of pressure ulcers for adults, including a comprehensive nutrition section. Where definitive evidence is absent, expert opinion (often supported by indirect evidence and other guidelines) is used to make recommendations. Also in 2014, NICE published a clinical guideline for the prevention and management of pressure ulcers, which includes specific nutrition elements (NICE, 2014).

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Table 1. Nutrition and hydration key messages for the prevention of pressure ulcers and promotion of wound healing (NHS Improvement, 2018)

Evidence

- Many nutritional risk factors have been identified in the development of pressure ulcers
- Risk factors include low body mass index (BMI), malnutrition, nutritional deficiencies, unintentional weight loss, an impaired ability to eat independently and obesity
- Obesity is an independent risk factor for developing a pressure ulcer, and the risk is further increased if the individual is obese and has malnutrition
- International guidance recommends using a nutritional screening tool to assess an individual's risk of malnutrition, and also assessing their weight history, weight loss and ability to eat independently
- NICE recognises nutrition deficiencies as a risk for developing pressure ulcers and supports the use of oral nutritional supplements for patients with identified nutritional deficiencies
- Early identification and treatment of individuals who are malnourished or at risk of it are vital in preventing pressure ulcer development and promoting wound healing.

Assessment and screening

- Nutrition assessment and screening should be carried out on admission and then weekly for all hospital inpatients
- In community settings, people should be screened on first contact, e.g. on admission to a care home or during initial registration at general practice surgeries, and then when there is clinical concern
- Nutrition assessment and screening should be an integral part of pressure ulcer risk assessment and screening
- Screening for malnutrition and the risk of malnutrition should be carried out by any member of the healthcare team who has had training to:
 - Determine malnutrition risk using a validated nutritional screening tool, such as the Malnutrition Universal Screening Tool (MUST)
 - Assess for signs and symptoms of dehydration and monitor fluid balance if concerned
 - Assess for ability to eat independently.
- Use your clinical/professional judgement to assess whether the individual is likely to be at risk of nutritional inadequacy because of their condition or any of the following factors: they follow a restricted or modified texture diet/fluids, they have ascites or oedema (which means body weight is difficult to measure accurately), or they are obese (BMI over 30).

Take action

- Begin an individualised care plan involving the service user where possible:
 - Provide food, fluid and assistance to best meet each individual's needs
 - Offer simple advice (including written) about a balanced diet and healthy fluid intake to
 - Promote adequate nutrition and hydration
 - Monitor and evaluate the care plan regularly, and revise your intervention as required
- Refer to a dietitian according to local care pathways or if no improvement is observed
- Keep going — reassess and review.

Thus, the workstream's key messages were to reflect both of these guidelines on nutrition and translate them into a practical concise guide of what to do and why, which was applicable to a broad range of clinical settings, to contribute to the prevention of pressure ulcers. The group's work led to the development of a resource using the acronym

EAT — know the Evidence, undertake Assessment, screen and Take action.

PART ONE

The Evidence section of EAT serves to detail the numerous nutritional risk factors that have been identified in the development of pressure ulcers. Patients should have a nutritional evaluation and screening undertaken as part of their pressure ulcer risk assessment. It also includes the criteria for the use of oral nutritional supplements for patients with identified nutritional deficiencies. Early identification and treatment of individuals who are malnourished, or at risk of it, are vital in preventing pressure ulcer development and promoting wound healing.

The Assessment and screening section of EAT includes information of who should be screened/assessed, and when and how to undertake this based on the NPUAP, EPUAP, PPIA and NICE 2014 guidelines. The group agreed that although nutritional screening *per se* is now in place across a majority of healthcare settings, challenges continued around the robustness of it, specifically in relation to the overall assessment of nutritional needs and the more subjective elements of malnutrition risk, both of which underpin the provision of good nutritional care. Thus, it was reassuring to see that an individual's ability to eat independently and nutritional inadequacy form part of the assessment.

Assessment of being unable to eat independently, as a risk factor for pressure ulcer development, is currently absent from objective nutrition screening such as the Malnutrition Universal Screening Tool (MUST) developed by the British Association of Parenteral and Enteral Nutrition in 2003. Assessment of it can make a real difference to ensuring the provision of good quality care, particularly for patients transferring from their usual residence (where these needs are known and addressed) into an alternative setting (e.g. home to hospital, or hospital to nursing home). Nursing staff and carers are well placed to recognise that someone is not eating and drinking well and to provide a first response to supporting those individuals.

Nutritional inadequacy is a known risk factor for pressure ulcer development. However, as some staff don't have the training and expertise to assess this, there is potential for it to be missed. Recognising this barrier, the group has included some prompts

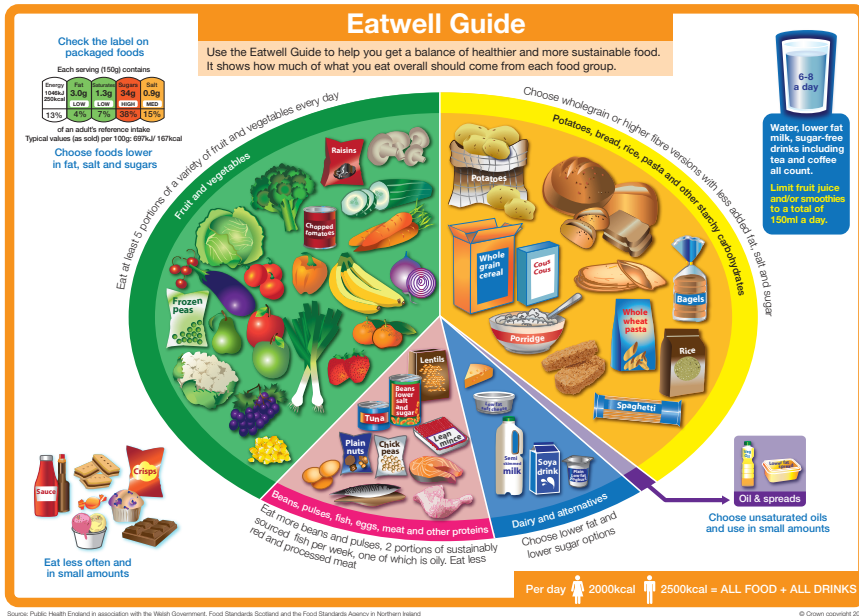


Figure 1. Eatwell Guide Source Public Health England in association with the Welsh Government, Food Standards Scotland and the Food Standards Agency in Northern Ireland © Crown copyright 2016

that suggest the particular patient groups who may be at risk of nutritional inadequacy because of their condition or certain health factors.

Discussions within the group formed the idea that an integral part of the key messages should be to Take action and re-evaluate. It emphasises the importance of including users in their care and early referral to a dietitian in line with local care pathways. The resource can be adapted and used locally based on local care pathways or simplified.

The key nutrition and hydration messages to prevent pressure ulcers and promote wound healing are highlighted in *Table 1*.

SECOND PART

The second part of the scope was to provide a concise and practical top tips relating to nutrition and hydration care for the National Stop the Pressure Programme. Top tips provide advice for clinical teams to share with their patients and can be adapted for local use. They focus on five key areas:

- » A healthy balanced diet
- » Hydration
- » Poor appetite
- » Being overweight or obese
- » Support if someone is unable to eat independently.

Although a degree of detail was provided for each of the top tips, sign-posting to pre-existing evidence-based resources is included where

appropriate and available. For example, we have signposted Public Health England’s Eatwell Guide (2016) as a main source of information (*Figure 1*) for what constitutes a healthy balanced diet along with offering practical solutions.

It was also agreed that British Dietetic Association’s Malnutrition Factsheet (2015) should be signposted as an evidence-based, pre-existing practical resource for providing top tips for those who have a poor appetite or are under-nourished.

The inclusion of advice for individuals who are overweight or obese may be of surprise to some, but specific nutritional guidelines are included in the pressure ulcer evidence base and this was also something requested by the national Stop the Pressure Programme advisory board. During our discussions, one of the dietitians shared her own experience of a patient who had been referred for advice, following the development of a pressure ulcer due to rapid planned weight loss. This is a good example of how weight loss and not just actual weight is a good indicator of risk and also highlights that this may be easily overlooked if the weight loss is intentional and designed to improve health status.

The top tips are not intended to provide tailored individual dietary advice and clinical teams should use the nutritional screening and assessment process to seek the expertise of a dietitian if indicated and appropriate.

The group’s final task was to develop a series of short case studies to demonstrate the role of nutrition and hydration in pressure ulcer prevention. To date, three case studies have been published as part of the nutrition and pressure ulcer resources. The case studies include learning from root cause analysis investigations, supporting weight loss to minimise the risk of pressure ulcers and the impact of the ‘food first’ approach in a residential care home. NHS Improvement is keen to develop this resource and if you would like to submit a case study please email nhsi.nutritionandhydration@nhs.net

NEXT STEPS

Following the publication of these resources, the nutrition and pressure ulcers task and finish group have been asked to continue to support the national Stop the Pressure programme. Initial scoping for this ongoing work has suggested that a programme of work will focus on raising awareness of the

resources to promote the importance of nutrition and hydration as an integral part of pressure ulcer prevention care. This will be achieved through publications, conference presentations and the use of existing campaigns such as Nutrition and Hydration Week, an annual event held each March, Dietitian's Week and Stop the Pressure. Additional work will also focus on the development and publication of Top Tips for nutrition and pressure ulcer management, with early discussion taking place with the British Dietetic Association to develop an evidence-based Food Facts resource. Work on this project will be completed at the end of November 2018.

OUTCOMES

This workstream enabled and provided the opportunity for Dietitians to come together and work with NHS Improvement. Being part of this NHS Improvement nutrition and pressure ulcer group has also provided many other opportunities which are important to capture and share. These opportunities have included conference presentations, journal publications and participating in webinar sessions.

Having an independent NHS Improvement lead facilitated the delivery of a programme of work within tight timescales by providing a focus to the work, and by identifying early on a defined scope and the outcomes that could be achieved and delivered within the timescale.

It allowed the Dietitians within the group to share ideas and existing resources — both in practical terms and 'hard copy'. The group encouraged good ideas to be combined into a format that could be used as the starting point for improving education regarding nutrition and pressure ulcer prevention and management.

The expertise of the group has been recognised as part of the wider national Stop the Pressure programme with group members being asked to comment on other areas of work of the programme, including the revision of the Nutrition Game (<http://www.thenutritiongame.com/#!/Home>) and some carers' resources.

Having this professional relationship and contact with dietetic colleagues has also provided an opportunity for NHS Improvement to work directly with the British Dietetic Association in instigating a Food First factsheet regarding nutrition and pressure

ulcers and potentially establishing a discussion forum for dietitians with a special interest in this area.

The initial workstream has created its own opportunities to continue the work to ensure that the resources are implemented, and the work sustained.

RECOMMENDATIONS FOR PRACTICE

National and international guidance recognises the evidence and makes recommendations relating to nutrition and hydration in the prevention (and management) of pressure ulcers. The publication of the NHS Improvement Nutrition and Pressure Ulcers resources provides an opportunity for clinical teams to increase their understanding of the role that nutrition and hydration play in supporting pressure ulcer prevention and the application of nutritional care into clinical practice. We would recommend that clinical teams use these resources to support good practice and the requirement for evidence-based practice.

It is acknowledged that in the absence of definitive evidence, expert opinion (often supported by indirect evidence and other guidelines) is used to make recommendations perhaps allowing for the evidence base for the impact of nutrition and hydration on pressure ulcer prevention to be academically challenged. We would encourage clinical and academic colleagues to consider approaches for establishing the definitive evidence, be this through the application of research or quality improvement methodologies.

The development of the NHS Improvement Nutrition and Pressure Ulcer resources would not have been possible without the invaluable contribution of the dietitians involved. We would encourage all organisations to utilise the experience and knowledge of their dietetic teams and other allied healthcare professionals, within pressure ulcer prevention and management workstreams.

The importance of nutrition and hydration as an element of pressure ulcer prevention and management should be emphasised across all healthcare disciplines.

It has been really encouraging to be contacted by clinical teams, who are now using these resources as part of their educational programmes with staff and patients and on display boards in clinical areas. We hope this article might encourage you to do the same.

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