In 2016, NHS Improvement launched the Stop the Pressure campaign at a national level to build on the success achieved by NHS Midlands and East in reducing the incidence of pressure ulcers. The aim is to create a culture shift that will reduce pressure ulcers across acute, community and mental health settings in England.

Nutrition is one of the key elements in pressure ulcer prevention – it is the “N” in the SSKIN bundle (NHS Improvement, 2017) – but not all clinical staff are aware of the connection between poor nutritional status and pressure ulcer development, and not all healthcare providers put enough emphasis on this issue. As part of Stop the Pressure, NHS Improvement recently published a series of resources to raise awareness of the importance of good nutrition in pressure ulcer prevention and care, and support staff to give the right advice and treatment to patients who are at risk.

Task group
Early work by the team behind the Stop the Pressure programme showed that many NHS trusts do not stress the importance of nutrition in their pressure ulcer plans. This led to the formation of a nutrition workstream at NHS Improvement whose remit is to better inform clinical teams.

A Nutrition and Pressure Ulcers Task and Finish Group, formed of dietitians and nutrition nurse specialists from 21 NHS organisations (Box 1), was created in August 2017 to develop evidence-based, practical resources to raise awareness of the importance of good nutrition in pressure ulcer prevention and care, and support staff to give the right advice and treatment to patients who are at risk.

**Key points**
- The Stop the Pressure campaign aims to reduce pressure ulcers across care settings in England
- Nutritional deficiencies are a risk factor for the development of pressure ulcers
- Assessing patients' weight and nutritional status should be an integral part of pressure ulcer prevention
- It is crucial that patients who are malnourished or at risk of malnutrition are identified and treated early
- NHS Improvement offers a range of resources to raise awareness of the link between nutritional status and pressure ulcers

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**Abstract**
Good nutrition and hydration play a key role in keeping skin healthy, and poor nutritional status is a risk factor in the development of pressure ulcers. Assessing patients’ nutrition status, including their ability to eat and drink, should therefore form part of holistic care in pressure ulcer prevention and management. A group of specialist nurses and dietitians at NHS Improvement has developed a series of evidence-based, practical resources to raise awareness of the importance of good nutrition in pressure ulcer prevention and care, and support staff to give the right advice and treatment to patients who are at risk.

**Citation**
opinion. For some recommendations on nutrition, NICE referred to its guideline on nutrition support for adults (NICE, 2006) so that was included in the evidence used to develop the key messages.

The task group produced key messages, summarised by the acronym EAT, on the following topics:
- What is the Evidence?
- When to Assess;
- When to Take action.

What is the evidence?
The evidence on nutrition and pressure ulcers is mostly contained in the two documents cited above. EPUAP (2014) recommends using a nutritional screening tool to assess individuals’ risk of malnutrition, and assessing their weight history, weight loss and ability to eat independently. NICE (2014) recognises nutritional deficiencies – inadequate intake of calories, proteins, fluids/water, and vitamins and minerals – as a risk factor for developing pressure ulcers; it supports the use of oral nutrition supplements for patients who have nutritional deficiencies.

Full details of the evidence used to develop the key messages can be found on the NHS Improvement website (Bit.ly/NHSINutritionHydration).

When to assess
The early identification and treatment of individuals who are malnourished or at risk of malnutrition is vital to prevent pressure ulcer development and promote wound healing when pressure ulcers occur. NICE’s (2006) guidance on nutrition support for adults advises that nutritional assessment and screening should be carried out:
- On admission to hospital and then weekly during the hospital stay;
- On first contact in the community (for example, on admission to a care home or on registration at a general practice) and then when there is clinical concern. It also advises that screening is undertaken by a trained member of the health-care team using a validated nutritional screening tool, such as BAPEN’s (2003) Malnutrition Universal Screening Tool.

In addition, our key messages state that:
- Nutrition assessment and screening should be an integral part of pressure ulcer risk assessment and screening;
- An assessment for signs and symptoms of dehydration should be included;
- If there are any concerns, fluid balance should be monitored.

Two further aspects are important:

Box 1. Organisations involved in the task group
- Bedford Hospital Trust
- Bridgewater Community Healthcare Foundation Trust (FT)
- Central London Community Healthcare Trust
- Chesterfield Royal Hospital FT
- Countess of Chester Hospital FT
- County Durham and Darlington FT
- Derby Teaching Hospitals FT
- Kingston Hospital FT
- Lancashire Teaching Hospitals FT
- Leeds Community Healthcare Trust
- Leeds Teaching Hospitals Trust
- London Procurement Partnership
- North Bristol Trust
- Queen Victoria Hospital FT
- Royal Free London FT
- Sheffield Teaching Hospitals FT
- St George’s University Hospitals FT
- University College London Hospitals FT
- Warrington and Halton Hospitals FT
- Whittington Health Trust
- Worcestershire Acute Hospitals Trust

Top tips
Five top tips were developed, which clinical teams are encouraged to share with patients and carers; the tips contain advice on:
- How to follow a healthy, balanced diet and ensure an adequate energy intake to prevent skin breakdown and improve healing;
- How to stay hydrated to maintain skin health;
- What patients should do if they have a poor appetite or need food that is high in energy and protein because of illness, weight loss or surgery;
- How to follow a healthy, balanced diet for those patients who are overweight or obese;
- How to support those who are unable to eat independently.

The top tips are not intended to provide tailored individual dietary advice, and clinical teams should use the nutritional screening process and their clinical/professional judgement to decide whether referral to a dietitian is needed.

As with the key messages, the top tips were developed using an evidence-based approach. Sources include Public Health England’s (2016) Eatwell Guide for advice on what constitutes a healthy, balanced diet and the British Dietetic Association’s (2015) factsheet on malnutrition, which offers advice on spotting, stopping and treating malnutrition – including by adding high-calorie ingredients to food and drinks.

Case studies
Some task group members had seen, in their clinical practice, the impact of nutrition on pressure ulcer care and felt that a series of case studies would help share what they learned. Leeds Teaching Hospitals Trust has provided a case study discussing the outcomes of a root cause analysis undertaken after a patient developed a pressure ulcer (Box 2). A case study from Sheffield Teaching Hospitals Foundation Trust focuses on the importance of weight loss being gradual to ensure skin integrity is not compromised, while another, from Warrington and Halton Hospitals Foundation Trust, looks at how a “food first” approach can support nutritional intake, promote wound healing and improve quality of life.

Implications for practice
The best available evidence states that nutritional deficiencies are a known risk factor for the development of pressure ulcers and that nutritional screening should be undertaken to assess the risk of malnutrition. The resources mentioned
Box 2. Case study

The case
Mark Hallway, a 19-year-old user of intravenous drugs with mental health problems and poor social support, was admitted from accident and emergency to a general ward for osteomyelitis. He required surgery and intravenous antibiotic treatment. After the operation, he was initially bedbound in the high-dependency unit and developed a category 3 sacral pressure ulcer.

At his nutritional assessment on admission, Mr Hallway had been assessed as “independent/appropriate/normal diet”, so there had been no nutritional screening. His past medical history had not been considered a risk factor for poor nutrition. No weight history had been obtained, and his weight and height had not been measured, so the opportunity to obtain objective measures and a malnutrition risk score had been missed. The lack of objective weight measures makes the monitoring of nutritional status during a hospital stay less reliable, which has implications for fluid balance monitoring and drug doses.

On day three of his admission, a nutritional assessment using BAPEN's (2003) Malnutrition Universal Screening Tool was undertaken; Mr Hallway was identified as being at high risk of malnutrition and referred to a dietitian. The referral form did not mention his pressure ulcer so the referral was regarded as lower priority, which delayed dietetic input.

Guidance
Patients should receive accurate nutritional assessment and screening on admission. When available, objective weight measurement can reliably identify those with a low body mass index, which is a contributing risk factor for poor nutritional status. This should, in turn, lead to timely nutritional care. During nutritional assessment, nursing staff should consider subjective and non-physical conditions that may increase nutritional risk.

Challenges
- It is often assumed that young and/or mobile patients who can eat independently are not nutritionally at risk
- Communication with, and engagement of, patients in some groups/some clinical conditions can make nutritional assessments more difficult and less reliable
- Objective measures can be less reliable as a result of fluid changes in both acute and chronic illness, and should be considered alongside observations and subjective information where available
- Delivering the best nutritional care relies on excellent communication between staff roles such as nursing, medical and housekeeping

Enablers
To allow timely and accurate nutrition screening and assessment, staff need to know about malnutrition risk factors, including those that are non-physical such as intravenous drug use, social isolation and mental ill health. Staff also need to be aware that malnutrition contributes to pressure ulcer development and poor wound healing. They should be encouraged to think “outside the box” and use their professional judgement.

Impact
If nutritional status is accurately assessed and timely, it will:
- Reduce patients’ risk of malnutrition contributing to pressure ulcer development
- Reduce the incidence of other consequences of malnutrition such as falls and infection
- Potentially reduce patients’ length of stay in hospital, with the benefit of associated time and cost savings
- Improve patients’ quality of life

Conclusion
Mr Hallway’s case was investigated via root cause analysis. The results were shared with clinical staff to raise their awareness of the confounding and overlapping factors that can contribute to pressure ulcer development. The analysis highlights the need to ensure that documentation systems (including the electronic systems currently that are being developed) promote consistency and accuracy in record-taking as well as joined-up thinking – for example, by linking pressure ulcer screening to nutritional screening.

References