

# Learning from root cause analysis investigation into a grade 3 pressure ulcer: Leeds Teaching Hospitals NHS Trust

January 2018

## The issue

A 19-year-old man, an intravenous drug user with mental health issues and poor social support, was admitted from A&E to general admissions ward with osteomyelitis requiring surgery and intravenous antibiotic treatment.

After the operation he was initially bedbound in the high dependency unit and developed a grade 3 sacral pressure ulcer.

At the nutritional assessment on admission (nursing):

- He was assessed as 'independent/appropriate/normal diet' so there was no nutritional screening through the malnutrition universal screening tool (MUST).
- His past medical history was not considered as a risk factor for poor nutrition/nutrition risk; no (brief) weight history was obtained and his weight and height were not measured.

At the subsequent nutritional assessment on day 3 of admission (on ward transfer) subjective MUST screening was done. The patient was (correctly) identified as high risk of malnutrition and referred to a dietitian in line with the care plan. However, there was no information about the pressure ulcer in the referral form so the referral was regarded as lower priority which delayed dietetic input.

The opportunity to obtain objective measures and a malnutrition risk score via height and weight was missed, as after the operation the patient was more clinically unwell and bed bound. Lack of weight affects reliability of monitoring of nutritional status during admission, and has implications for fluid balance monitoring and drug doses.

## The solution

Based on current guidelines:

- Patients should get accurate nutritional assessment and screening on admission. When available, objective measures can reliably identify patients with low body mass index, which contributes to being nutritionally at risk. This should in turn lead to timely implementation of nutritional care.
- During nutritional assessment nursing staff should consider subjective and non-physical clinical conditions that may affect the nutritional risk.

Nursing staff need to understand that malnutrition contributes to development of pressure ulcers and poor wound healing, and it is important to include this information as part of a dietetic referral.

## Enablers and challenges

### Challenges

There is an assumption that young or mobile patients who are 'independent with eating' are not nutritionally at risk.

Communication with, and engagement of patients in some patient groups/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 thus 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 housekeepers.

### Enablers

Educate staff about a range of malnutrition risk factors (including non-physical ones such as intravenous drug use, social isolation and mental health issues as potential common causes of malnutrition) to enable accurate nutrition screening and assessment.

Educate staff about the fundamental link between nutritional risk and pressure ulcer development.

Empower staff to think beyond the paperwork and use their professional judgement alongside knowledge.

Ensure paperwork facilitates consistent documentation and 'joined-up thinking' (for example between pressure ulcer screening and nutritional screening).

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## Impact

If each patient's nutritional status is accurately assessed in a timely manner to enable individualised care and treatment, this will:

- reduce the contribution of malnutrition to pressure ulcer development
- reduce the incidence of other consequences of malnutrition (such as falls and infection)
- potentially reduce the patient's length of stay, with associated time and cost saving
- improve the patient's quality of life.

## Next steps and sustainability

The team presented this case study obtained via the root cause analysis investigation of a pressure ulcer back to multiprofessional clinical staff to demonstrate the confounding and overlapping factors that contribute to pressure ulcer development.

It has highlighted the need to ensure that 'paperwork' (and electronic systems currently in development) facilitate consistent documentation and joined-up thinking between pressure ulcer screening and nutritional screening.

## Want to know more?

This work is part of our [Stop the Pressure programme](#) and relates specifically to the nutritional element of the SSKIN bundle.

To see the other case studies in this series, visit our [Improvement Hub](#).

For more information on our nutrition and hydration work, email [nhsi.nutritionandhydration@nhs.net](mailto:nhsi.nutritionandhydration@nhs.net)

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