

# Improving inpatient nutritional assessment using the Malnutrition Universal Screening Tool

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## INTRODUCTION

- Up to a third of patients admitted to hospital are at risk of malnutrition, leading to longer inpatient stays and increased risk of complications and readmission<sup>1</sup>. Early assessment of nutritional status is therefore crucial to minimise morbidity and mortality.
- The most commonly used validated screening tool in the UK is the Malnutrition Universal Screening Tool (MUST)<sup>2</sup>. The MUST is designed to assess nutritional risk and, if detected, triggers further action such as referral to a dietician. Our Trust guidelines state that a MUST should be completed within 6 hours of admission and in the case of a prolonged admission (>7 days), should be repeated weekly.

## AIMS

- To assess the accuracy and timing of initial MUST and frequency of repeat MUST screening for patients admitted to 4 long-stay medical wards
- To assess and improve staff understanding and assessment of nutritional status to improve recognition and action taken on patients at risk of malnutrition

## METHODS

- Baseline audit:** A spot audit of MUST assessments was carried out for all inpatients on 4 long-stay medical wards on a single day in October 2020.
- Pre-intervention:** A pre-intervention staff questionnaire was then undertaken across the same wards to assess understanding and awareness of the MUST.
- Intervention:** Subsequently, we produced an educational poster on the MUST (Figure 1) and carried out a brief face-to-face small group educational session for staff on 1 of the 4 wards.
- Post-intervention and re-audit:** A post-intervention staff questionnaire was then undertaken to re-assess understanding, with a re-audit of MUST screening of patients on the same ward carried out the following month.

Figure 1. Educational poster

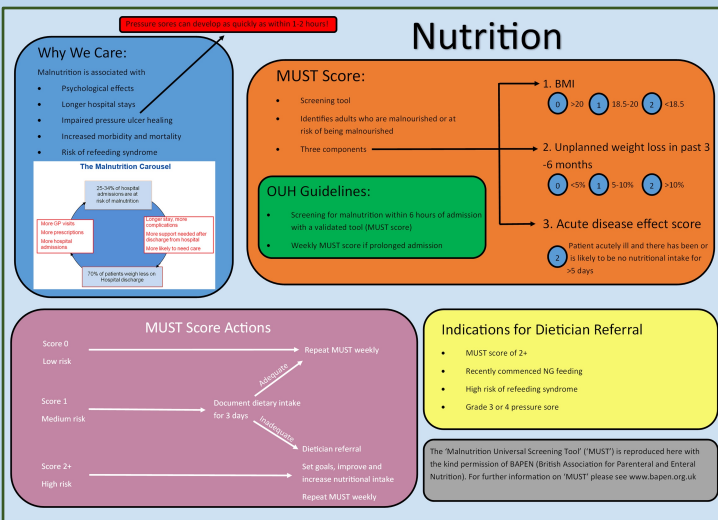
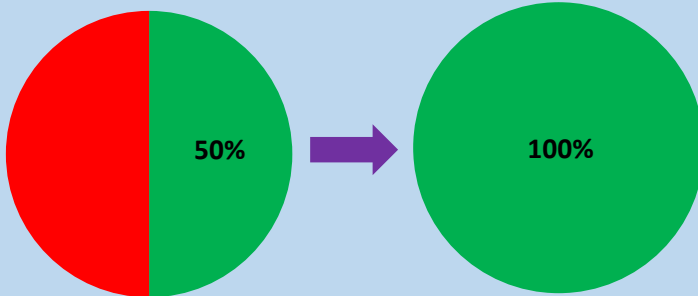
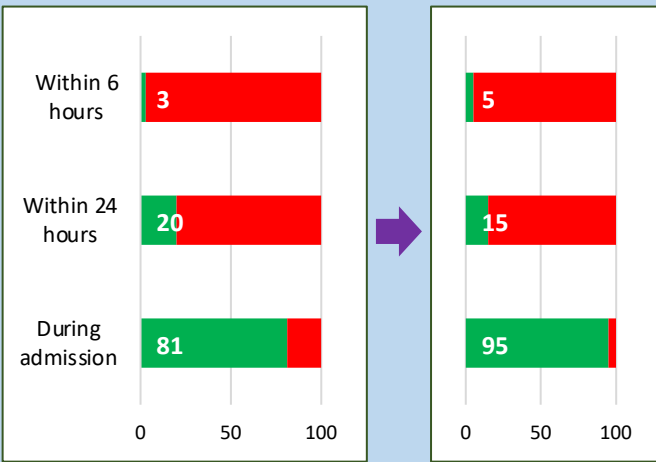


Figure 3. Performance (%) of weekly MUST pre- to post-intervention



## RESULTS

Figure 2. MUST completion (%) pre- to post-intervention



- 79 inpatients from 4 long-stay medical wards were included in the initial audit. Only 3% (2/79) of screening was completed within 6 hours and 81% (64/79) completed at all during admission (Figure 2). 50% (24/48) of patients with a prolonged admission received repeat MUST screening (Figure 3).
- 17 staff of various roles across all 4 wards completed the pre-intervention questionnaire, of which 71% (12/17) were able to identify all 3 components of the MUST. Following the educational intervention trialed on one ward, this improved to 91% (10/11; p=0.35).
- A re-audit on the same ward demonstrated overall improved MUST screening of patients during their admission (p=0.18). A statistically significant improvement was demonstrated with repeat MUST screening, with 100% (10/10) of patients with a prolonged admission having weekly screening (p=0.0034).

## CONCLUSION & NEXT STEPS

We have demonstrated that a brief face-to-face educational intervention can have a positive impact on improving staff understanding of the MUST and its usage in keeping with local guidelines. We plan to deliver the intervention across the remaining long-stay medical wards, and to extend our intervention to short-stay medical wards where the majority of initial MUST assessments occur. In addition, electronic reminders with regular face-to-face educational sessions would be beneficial to enhance long term impact, considering staff turnover on the wards.

References  
1. BAPEN. Introduction to Malnutrition: Who is at risk of malnutrition? <https://www.bapen.org.uk/malnutrition-undernutrition/introduction-to-malnutrition?start=1> [accessed 6 January 2022].  
2. National Institute for Health and Care Excellence. Nutrition support in adults [Quality Standard 24]. NICE; 2012. <https://www.nice.org.uk/guidance/QS24> [accessed 6 January 2022].