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The implementation of the malnutrition screening tool at a university teaching hospital

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Malnutrition is an under-recognised and under-treated problem to the detriment of individuals and the health care service. A document published by The British Association of Parenteral and Enteral Nutrition (BAPEN) estimated public expenditure on disease related malnutrition in the UK to be in excess of £13 billion per annum[(1)]. Malnutrition adversely affects physical and psychological function and impairs patients' recovery from disease and injury, thereby increasing mortality and morbidity[(2)].

The NICE Clinical Guideline 32 recommends that all hospital patients are screened on admission to hospital and that screening is repeated weekly[(3)]. At the time this guideline was published, routine screening for malnutrition on admission for adult in patients was already taking place at Wirral University Teaching Hospital using a locally produced tool. However, the inter-rater reliability between staff and a researcher carrying out the locally produced tool had previously been found to be poor and subsequently, the hospital nutrition steering committee decided to implement The Malnutrition Screening Tool (MUST)[(4)].

Replacing an established local screening tool across a large teaching hospital is an extensive task. The need to promote and also comply with a validated screening tool had been identified and a full time twelve month dietetic post funded to facilitate this task commenced in October 2009. An audit of existing ward equipment (scales and stadiometers) was carried out and suitable equipment purchased. Local care plans were formulated and multi professional communication achieved via extensive advertising and presentations. Widespread staff training also took place across the trust.

A paper copy of 'MUST' was devised and initially piloted on three wards. Following the pilot, staff acceptability was evaluated via a questionnaire. A nutritional screening policy for adult in patients was written. Within this policy, two measurable key performance indicators were identified and targets set for each-all patients will be weighed within 24 hours of admission and all patients will have been screened within 24 hours of admission.

A 'MUST' software package was produced and 'MUST' was launched across the trust in May 2010. An audit of inter rater reliability was carried out on 50 patients. The results were analysed using SPSS. The results demonstrated a high inter rater reliability with patients who obtained a 'MUST' score of 0 but worsening inter rater reliability as the auditor's 'MUST' score increased. The Kappa value comparing the auditor versus the ward staff score was 0.271, $p<0.01$.

Although the sample size was very small, the worryingly poor correlation between patients who had higher 'MUST' scores in the audit group versus the scores obtained at ward level would suggest that the most vulnerable patients were not being identified when screening. Retrospective quarterly audit data from September 2010 to May 2011 has demonstrated an increase in completing 'MUST' within 24 hours admission from 37.05% to 43.3% and 56.6% respectively.

A dedicated post focusing on the implementation of 'MUST' enabled robust communication throughout the trust and extensive training. However, it is vital that 'MUST' is completed correctly if the most nutritionally vulnerable patients are to be correctly identified. Although compliance was poor initially this has progressively increased.

1. Elia M & Russsell CA (eds) (2009) *Combating malnutrition; Recommendations for Action.* A report from the Advisory Group on Malnutrition, led by BAPEN. Redditch: BAPEN.
2. Stratton RJ, Green CJ & Elia M (2003) *Disease related Malnutrition: An evidence based approach to treatment.* Oxford: CABI Publishing.
3. NICE (2006) *Nutrition Support in Adults: oral nutrition support, enteral tube feeding and parenteral nutrition, CG32*. London, National Institute for Health and Clinical Excellence.
4. The Malnutrition Advisory Group (standing committee of BAPEN) (2003) *The Full Malnutrition Universal Screening Tool.* http://www.bapen.org.uk/pdfs/must/must_full.pdf.