Conclusion Implementation of NST resulted in:
12 patients (40%) were successfully prevented from inappropriately starting PN and the median duration of PN reduced by 1 day - A total reduction of 132 less PN days.
The number of peripheral PN days was reduced by 189.5 days. A reduction in the number of patients on PN awaiting a procedure to facilitate EN.
A conservative estimate of £20,671.20 was saved as a result.

Abstract OC-075 Table 1

<table>
<thead>
<tr>
<th>Mean (95% CI)</th>
<th>Sensitivity</th>
<th>Specificity</th>
<th>PPV</th>
<th>NPV</th>
<th>κ</th>
<th>Strength of agreement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Modified analysis</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Must</td>
<td>63 (46 to 78)</td>
<td>87 (84 to 90)</td>
<td>69 (51 to 83)</td>
<td>86 (77 to 92)</td>
<td>0.27 (0.15 to 0.41)</td>
<td>Fair</td>
</tr>
<tr>
<td>Mendenhall</td>
<td>71 (54 to 84)</td>
<td>87 (79 to 93)</td>
<td>69 (52 to 82)</td>
<td>88 (80 to 94)</td>
<td>0.30 (0.17 to 0.43)</td>
<td>Fair</td>
</tr>
<tr>
<td>Morgan</td>
<td>79 (62 to 90)</td>
<td>87 (79 to 93)</td>
<td>71 (55 to 84)</td>
<td>91 (83 to 96)</td>
<td>0.44 (0.32 to 0.57)</td>
<td>Moderate</td>
</tr>
</tbody>
</table>

OC-074 NUTRITIONAL ASSESSMENT AND OUTCOME IN PATIENTS UNDERGOING EMERGENCY ABDOMINAL SURGERY

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Introduction Malnourished Surgical patients are at a significantly greater risk of post-operative complications and death than well-nourished patients. The “Malnutrition Universal Screening Tool” (MUST) is a validated tool for identifying at-risk patients. This paper studies the application of MUST in patients undergoing emergency abdominal surgery and the accuracy of this tool in predicting need for artificial nutritional support and clinical outcome.

Methods A prospective cohort study of patients undergoing emergency abdominal surgery at a university surgical unit over a 2-month period was undertaken. MUST data were collected prospectively and admission and highest (maximum score during admission) MUST scores calculated independently by two researchers. Clinical outcome data were collected.

Results 55 patients were included, median age 66. Median admission and highest MUST scores were 0. Eighteen patients had a highest MUST of ≥2. Post-operative complications included ileus (n=9), severe sepsis (n=6) and death (n=10), and were associated with increased highest MUST scores (2 vs 0, p=0.005). All patients with MUST ≥4 died (n=4). On multivariate analysis, both admission and highest MUST scores predicted need for artificial nutritional support (p=0.011 and p=0.005). A highest MUST score ≥4 independently predicted both artificial nutritional support requirement (p<0.001) and death (p<0.001).

Conclusion Admission MUST scores predict requirement for artificial nutritional support. MUST scores repeated during admission offer utility in predicting both requirement for artificial nutritional support and survival. Clinicians have a responsibility to ensure accurate nutritional assessments are undertaken throughout hospital admission in order to identify those at risk and institute appropriate treatment.

Competing interests None declared.

REFERENCES
1. Austin, Stroud. 2007.

OC-075 ASSESSMENT OF NUTRITIONAL STATUS IN PATIENTS WITH CIRRHOSIS: MUST IS NOT A MUST

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Introduction The incidence of malnutrition in patients with cirrhosis is high. However, it often goes undetected as many screening tools are based on measurement of body mass index (BMI), which is a poor nutritional marker in this population as patients tend to be centrally obese yet muscularly depleted. The gold standard for the assessment of malnutrition in this population is the Royal Free Hospital Global Assessment (RFH-GA). The Malnutrition Universal Screening Tool (MUST), which is based on BMI, is still used in some UK Liver transplant Units, although it may not be valid in this setting. Hence the aim of this study is to validate the MUST tool against the gold standard RFH-GA for use in patients with cirrhosis.

Methods Multicentre validation was undertaken in a cohort of 135 patients, (98 men; 35 women; age 56 [23–75] yr) with cirrhosis across five UK liver transplant units. Nutritional status was screened using the MUST tool and then categorisation of nutritional status was determined by using the RFH-GA. The analysis of descriptive data, cross-tabulation, performance variables, 95% CIs and κ values were calculated using standard methods. κ Values were interpreted according to Altman, 1999.
Results Eight-four (63%) of the 133 were categorised, using the RFI-GA, as being moderately or severely malnourished. In contrast the MUST tool identified only 45 (34%) patients as being at nutritional risk. Thus the sensitivity and specificity of MUST for determining nutritional risk were 34% (95% CI 20 to 51) and 94% (95% CI 86 to 97), respectively; the \( \kappa \) value was 0.19 demonstrating a poor level of agreement. The sensitivity and specificity of MUST improved when the patients with fluid retention were excluded from the analysis, 100% (95% CI 46 to 100) and 91% (74–98); respectively. The performance of the MUST also improved as the accurate dry body weight was better calculated but still did not reach 100% sensitivity indicating body weight alone is not a good marker of nutritional status in this patient population.

The performance of the MUST utilising alternative weight adjustments in patients with fluid retention

Conclusion The performance characteristics of the MUST tool in this setting are poor. This tool, can not be recommended for screening patients with chronic liver disease for nutritional risk.

Competing interests None declared.

REFERENCES

OC-077 JEJUNAL TUBE FEEDING EXPERIENCE IN PAEDIATRIC NUTRITION SUPPORT

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1 C Paxton, 2 P M Gillett, 3 G Wilkinson, 4 F D Munro, 5 S McQuirk, 1 K Armstrong, 1 L Bremner, 1 V Robb, 1 J E Livingstone, 3 D A Devadason, 1 D J Mitchell, 6 D C Wilson.

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Introduction There is an emerging group of children in whom poor and worsening upper GI dysmotility limits feed tolerated and impacts growth; we wished to evaluate the role of jejunal tube feeding (JTF) in this group.

Methods A retrospective cohort study (database/clinical note review) in a tertiary paediatric centre to evaluate use of PEG-J, transgastric gastrojejunostomy (GJ) tubes and surgical roux-en Y jejunostomy (ReYJ), and the impact on growth of JTF in children with worsening GI dysmotility. All children (<18 years) receiving home enteral tube feeding (HETF) during the period 01 January 2002–31 December 2011. Weight at time of commencing JTF and at 6 or 12 months post-start was collected and expressed as SD or Z-score. Change in weight Z-score was calculated using paired t-test.

Results A total of 866 children received HETF during the study period, of whom 41 (5%) had JTF at home. Median (range) decimal age at start of JTF was 2.7 (0.1–16.2) years. 56 of 41 (88%) had an underlying neurodisability; 53 of 41 (80%) were gastrostomy fed prior to commencing JTF. Of the 41 JTF children, 19 (46%) were fed via a GJ tube; 5 (12%) via PEG-J and 17 (42%) had a ReYJ. The majority of JTF related complications occurred with GJ tubes; although usually minor, one death occurred following small bowel intussusception around a GJ tube. Minor JTF complications included burst balloons, holes in the Y-port or tube and fungal infection and resolution required tube changes. Tube migration was a problem with both GJ and PEG-J tubes; ReYJ were associated with the fewest minor complications of stomal infection and leakage. By study end, 21 (51%) continue on JTF, 9 (22%) died (all but 1 due to their underlying condition), 1 (2%) moved out of area, 2 (5%) transitioned to adult services and 8 (20%) returned to gastric feeding. 25 of 41 children had JTF for >6 months and had longitudinal growth data collected; median (range) weight Z-score at the start of JTF was –1.3 (–5.2–2.1) and rose to –1.0 (–3.4–2.3) by 6–12 months, with a significant improvement in mean (95% CI) change in weight Z-score of 0.7 (0.1 to 1.3) (p = 0.02).

Conclusion There are time consuming practical challenges associated with JTF, some of which are device dependent, and ReY JTF appears best for long-term usage. JTF is an effective intervention to improve growth in children with severe and worsening upper GI dysmotility.

Competing interests None declared.