

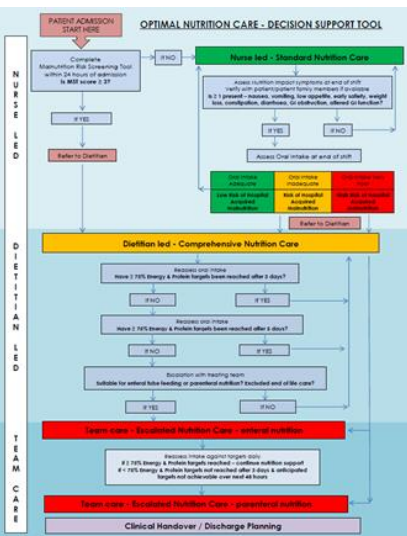


Development and feasibility of a bedside decision support tool (DST) to identify and treat hospital acquired malnutrition

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Background: Deterioration of nutritional status during hospitalisation is common, contributing to morbidity and mortality. Despite this, adherence to evidence-based nutrition care processes remains suboptimal in clinical settings.

Aims: To develop and evaluate a multidisciplinary DST to assist in the early identification of deteriorating nutritional status and guide nutrition care and treatment escalation.



Method: A novel DST was developed, informed by available evidence and feedback from end-users and evaluated via pilot pre-post testing in four acute wards located at two Melbourne hospitals.

Feasibility of the DST was explored via an anonymous staff survey to measure presentation, usability, improvements and sustainability.

Table 1: Examples of how DST was used

"It prompted early referrals for dietetic intervention"

"The tool promoted discussion with medical team earlier than usual regarding escalating of nutrition support"

"Patient that had <75% requirements due to small bowel obstruction; used tool to advocate for TPN"

"I have used the tool on ~2 occasions where MST was low (1 or 2) to refer patient for nutrition assessment"

Table 2: Comparing Nutrition Care Practices

	Baseline	Intervention	P Value
Nutrition screening completed within 24hrs	39 (61.9%)	34 (65.4%)	0.924
Malnutrition risk score ≥2	18 (42.9%)	17 (43.6%)	1.0
Patient received Dietitian care	17 (27%)	27 (52%)	*0.011

Results: The DST (Figure 1) comprised 'traffic-light' colours to stratify patient risk and guide actions for nurse-led, dietitian-led and team-based nutrition care. The multidisciplinary staff survey results (n=40) measured end-user opinions of DST elements using a 5-point Likert scale ranging from 1 (strongly agree) to 5 (strongly disagree). An average score of 2.1 (SD 0.8) across items was obtained, indicating a favourable response. Qualitative feedback was collected, and as shown in Table 1, included examples of how the DST was used in daily clinical practice.

Table 2 shows the DST had no impact on nutrition screening completion rates on admission, however significantly more patients received dietitian care to mitigate nutrition decline during hospitalisation in the intervention group, p = 0.011.

Conclusion: A bedside DST to identify patients at risk of nutritional decline during hospitalisation and guide timely treatment was positively received by end-users and warrants further improvement and evaluation. Measuring the effectiveness of a nutrition care DST to improve patient outcomes is required with a larger scale study. Further analysis of pilot study data is underway.

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