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This study demonstrated that 90% of patients who survived critical illness due to COVID-19 received individualised nutrition interventions from the dietitian to support rehabilitation. Due to the impact of the COVID-19 infection on the ability to eat and drink, EN and/or ONS were clinically appropriate throughout the duration of the ward stay. Dietetic provision met the recommended guidelines for nutrition support in hospital and facilitated further dietetic input on discharge. Feeding tubes were removed in half of patients without dietetic input which may have been premature in some cases and warrants further work on decision making. Patients lost weight over the ICU stay, but this was halted under dietetic-led care post ICU.

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## THE PROVISION OF PARENTERAL NUTRITION FOR PATIENTS WITH COVID-19 ON THE INTENSIVE CARE UNIT: EXPERIENCE AT A DISTRICT GENERAL HOSPITAL

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Up to 10% of COVID-19 patients require respiratory and hemodynamic support in the ICU and are at an increased risk of malnutrition (1). Where enteral nutrition is impossible, contraindicated, or insufficient then parenteral nutrition (PN) is warranted, and considered safe in the critically ill cohort (2, 3). We report the characteristics and outcomes for ventilated patients with COVID-19 who received PN on ICU.

A retrospective observational study was undertaken of COVID-19 ICU patients between March-April 2020 ("wave1") and December-March 2021 ("wave2"). Nutritional risk was calculated using The NUTRIC score (4). Data was analysed in Microsoft Excel.

In total, 17 patients with COVID-19 (7 in "wave1", 10 in "wave2") received PN for an average of  $8.6 \pm 4$  (range 4-16) days during their admission. 1. Patient characteristics (n=17)

Age (mean ± SD (range))	60 ±12 (28-78)	APACHE (mean (range))	15 (12-24)
Male/Female	15/2	SOFA (mean (range))	10 (6-14)
BMI kg/m2	29.7 ±6 (21-35)	Proning	13 (76%)
I+V	17 (100%)	30-day mortality	12 (70%)
Nasogastric	17 (100%)	Time to PN from I+V	$8.9 \pm 4 (2-18)$
tube in situ		$(mean SD \pm (range))$	

Legend: BMI — Body Mass Index, I+V — intubated and ventilated, APACHE - Acute Physiology And Chronic Health Evaluation, SOFA — Sequential Organ Failure Assessment

Indications for PN were high gastric residual volumes (GRVs) (70%), haemodynamic instability and impaired feed delivery. In wave 2, bedside Naso-jejunal tube (NJT) placement was available. Six patients had successful NJT insertion, all of which subsequently achieved nutritional targets enterally, and PN was discontinued. 35% of patients had a NUTRIC score  $\geq 5$  and required longer on PN (mean 10.5 days) versus those with a

NUTRIC score <4 (mean 7.1 days). Biochemical refeeding was seen in 50% of patients.

In conclusion, ventilated COVID-19 patients on the ICU who required PN had complex nutritional needs, and significant levels of refeeding. Accrued nutritional deficit due to high GRV's was our primary indication for PN commencement. They had a high mortality rate, when compared to national ICNARC mortality data (5), suggesting PN was provided at the point of worsening multi-organ failure.

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## USING THE NUTRITION WHEEL TO IDENTITY RISK OF MALNUTRITION AMONG OLDER ADULTS IN THE COMMUNITY: A PROCESS EVALUATION

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The majority of malnutrition (as undernutrition) in older adults originates in the community (1) and is still under-detected and under-treated (2). Work conducted by the Wessex Academic Health Science Network (AHSN) Nutrition in Older People Programme (2014-18) (3) identified a need for simple tools used by the wider workforce including volunteers, community workers and carers to identify and better manage malnutrition at an early stage. Based on the Patients Association Nutrition Checklist (with four key questions focussing on weight, unplanned weight loss, appetite and nutrition)(4), the 'Nutrition Wheel' was developed as a novel interactive tool to help identify risk of undernutrition in the older people in the community and provide appropriate nutritional guidance and signposting. This process evaluation used mixed methods to investigate the feasibility and acceptability of the Nutrition Wheel to identify older people at risk of malnutrition by volunteers and staff from 3 charitable organisations in Dorset, Hampshire and Hertfordshire.

In total, 27 volunteers/staff were trained to use the Nutrition Wheel, ranging in age from 26-76 years. They were asked to deploy the Nutrition Wheel with older people over a 4 to 6-week period between May 2019 -July 2019. Monitoring forms were used to record those identified at risk after using the Nutrition Wheel with clients aged >65 years at home or at community events e.g. at lunch and activity groups. 15 telephone interviews and one in-person focus group (with 9 volunteers/staff) were conducted to explore the use of the Nutrition Wheel, training and support, impact and the monitoring process. Interviews were audio-recorded, transcribed verbatim and then analysed using deductive thematic analysis. The Nutrition Wheel was used with 153 older adults living in the community. There were 29.4% (n 45) older adults rated at risk of malnutrition. Of these, 17% (n 8) scored 'Yes' or 'Don't know' on question 1 (concerns about being underweight or need nutritional advice), 51% (n 23) scored 'Yes' or 'Don't know' on question 2 (loss of weight unintentionally in the past 3-6 months), 38% (n 17) scored 'Yes' or 'Don't know' on question 3 (clothes or rings have become loose recently), 49% (n 22) scored 'Yes' or 'Don't know' on question 4 (recent loss of appetite and interest in eating). Five key themes were identified from the interviews and focus group: design and usability; outcomes and concerns identified (including quality and frequency of meals, physical and mental problems, hydration); person-centred approaches; barriers; sustainability.

This process evaluation showed that volunteers and staff were using the Nutrition Wheel as a conversation starter about nutrition as part of their role. The tool opened-up the opportunity for older people to raise other health related issues and concerns. Training raised awareness of malnutrition and improved understanding of appropriate actions volunteers and