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Rationale: Adequate nutritional support in hospitalized patients, is not only essential to maintain and recover the nutritional status of patients, but also, is important for maintaining the mucosa of the gastrointestinal tract, reducing bacterial translocation, reducing the risk of infections and, consequently, decreasing length of hospital stay.

Methods: A descriptive, cross-sectional and retrospective study was carried out with 370 patients of both sexes, between 18 and 92 years old and under prescription of exclusive enteral nutritional therapy, admitted to two private hospitals in the city of São Paulo from January to December 2019. Secondary data was collected from the records of the multidisciplinary nutritional therapy team and used to state the main reasons for discontinuing the Enteral Nutrition infusion in patients who received less than 80% of their prescribed volume.

Results: It was found that 18% of patients with exclusive enteral nutritional therapy received less than 80% of their prescribed volume. From these patients, 42% were related to failure to document the infused volume in the patient's medical record, that is, the patient received the appropriate volume, but there was no record to evidence so. Of the remaining patients, 20% presented hemodynamic instability, 12% problems related to probe / gastrostomy, 11% fasting for procedure, 10% gastrointestinal changes and 5% fasting for exam.

Conclusion: In the present study, the main complications refer to the failure of data recording by the nursing team. Thus, the continuing education of professionals who belong to the multidisciplinary team is fundamental to guarantee the success of nutritional therapy and better clinical outcome for the patients.

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THE COVID-19 PATIENTS' CHARACTERISTICS UPON ADMISSION TO INTENSIVE CARE AND RESPONSE TO NUTRITION DIFFER FROM OTHER PATIENTS - PRELIMINARY DATA

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Rationale: The COVID pandemic has resulted in a high number of intensive care (ICU) admissions, generally for respiratory distress. While research has focused on respiratory and infectious characteristics, little is known about their metabolic and nutritional status compared to other categories of patients. The aim was to compare COVID patients' characteristics and metabolic response to long-stayer patients (LSP)

Methods: Prospective observational study in two consecutive cohorts admitted to the ICU: Only ventilated LSP and COVID-19 patients were included. Variables: demographic data, severity score (SAPS2), NRS score, C-reactive protein (CRP), prealbumin values on admission (adm) and D6-9 (delta calculated), nutritional management, length of stay and outcome. Nutritional recommendations were for both groups: energy goal 20 kcal/kg first week (then adapted following indirect calorimetry for LSP, no calorimetry for COVID), protein 1.2 g/kg, enteral nutrition privileged. The confined dieticians worked on computer basis. Statistics: median (interquartiles), percentage

Results: Altogether 52 of 55 LST and 74 of 104 COVID were mechanically ventilated. Characteristics in Table. Gender was evenly distributed (75% men). COVID patients were significantly older and heavier. Median NRS was 5 in both groups, 1-3 points coming from reduced eating in COVID. Mortality was higher in COVID. Admission prealbumin was significantly lower in COVID vs LST, unrelated to NRS score, and negatively correlated to

CRP (r2=0.082). Prealbumin increased significantly more in COVID, but also in survivors of both groups where difference over time was 0.03 (0; 0.09) g/l (p<0.0001). Enteral nutrition initiated earlier in COVID. Energy & substrate data not yet available

	Long stay (n=52)	COVID (n=74)	P value
Age (yrs)	60 (51; 72)	67 (57; 75)	0.0014
Weight	77 (63; 90)	85 (72; 98)	0.0005
BMI (kg/m2)	25.1 (21.1; 31.5)	27.8 (25.7; 33.1)	0.0014
SAPS2 score	41 (33; 59)	44 (36; 49)	0.703
Length ICU stay (d)	26.6 (16.4; 27.8)	13.7 (6.0; 20.3)	<0.0001
Prealbumin Adm. g/L	0.095 (0.07; 0.14)	0.075 (0.06; 0.10)	0.0333
Delta prealbumin g/L	0.025 (0.01; 0.06)	0.15 (0.05; 0.29)	<0.0001
Mortality	19.2%	32.4%	0.1003

Conclusion: Mechanically ventilated COVID patients were older and heavier. Prealbumin values on admission were lower and reverted faster to normal values, which might be due to a more rapid clearance of inflammation and catabolism

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RELEVANCE OF NON-NUTRITIONAL CALORIES BY PROPOFOL IN COVID-19 CRITICALLY ILL PATIENTS

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Rationale: Overfeeding in critically ill patients is associated with many complications. Propofol provide non-nutritional calories, potentially causing overfeeding. Patients with COVID-19 in the ICU need a large amount of sedation and Propofol is one of the most widely used drug.

Methods: We retrospectively studied 51 adult mechanically ventilated intensive care unit (ICU) patients with COVID-19 receiving enteral nutrition. We collected and analyzed demographic, nutritional parameters, and dosage of Propofol used. Descriptive data were reported as means and s.d. or median and interquartile range (IQR) in case of skewed distributions, frequencies and percentages or ranges (minimum–maximum).

Results: Of the 51 critically ill patients with COVID-19, 76% of patients received propofol during hospitalization. The mean age was 66 years old (SD ± 14) and 37 (73%) were men; 34 (66%) are overweight or obese. An adequacy of 88% and 86% of protein and energy goals, respectively, were achieved. Among patients with propofol (N = 39) administration, median intake from propofol was 260 (IQR 20-594) kcal. The proportion of calories from propofol was 15% (SD± 8) and mean duration of use was 8 days (SD± 5.5). The length of stay in the ICU was 18 (SD ± 11) days on average and 14 (27%) died.

Conclusion: The mean proportion of non-nutritional calories in patients who receive propofol is low. However, it can reach more than 500 kcal/day in some patients. Patients must have close monitoring in order to prevent overfeeding.

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NUTRITIONAL THERAPY IN COVID-19 CRITICALLY ILL PATIENTS

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Rationale: COVID-19 is a rapidly evolving pandemic with many critically ill patients and no proven treatments except supportive care. Further, cytokine storm and hyperinflammatory state appears to be an emerging component of severe COVID-19 illness. There are few data about nutritional therapy interventions for COVID-19 critically ill patients.

Methods: This study included a retrospective, single-center case series of 51 consecutively critically ill patients who received enteral feeding with confirmed COVID-19 at Hospital Israelita Albert Einstein in São Paulo, Brazil. We collected and analyzed demographic, nutritional parameters, and nutritional therapy data. We expressed the measurement data as mean \pm standard deviation.

Results: Of the 51 critically ill patients with COVID-19, the mean age was 66 years old (SD \pm 14) and 37 (73%) were men; 34 (66%) are overweight or obese. It was observed a mean of 1.2g/Kg (SD \pm 0.3) actual body weight protein delivered and mean of 21.3 Kcal/Kg (SD \pm 4.2) actual body weight calories delivered. Despite a good tolerance to enteral nutritional therapy, 22% had diarrhea and 20% vomiting. The length of stay in the ICU was 18 (SD \pm 11) days on average and 14 (27%) died.

Conclusion: Nutritional therapy in covid-19 patients is still a new topic. Apparently, patients have good tolerance to enteral nutrition and it is possible to achieve nutritional goals.

Disclosure of Interest: None declared

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ADMINISTRATION OF ENTERAL NUTRITION WITHIN 24 HOURS AND PROTEIN ADMINISTRATION OF 1.2 G/KG/DAY WITHIN ONE WEEK CONTRIBUTE TO REDUCING INFECTIOUS COMPLICATIONS IN CRITICALLY ILL PATIENTS.

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Rationale: In critically ill patients who need enteral nutrition, it is unclear whether protein doses and administration schedules in the acute phase are associated with outcomes. The purpose of this study is to clarify this.

Methods: In this observational study, data were collected from patients admitted to our intensive care unit (ICU) needing enteral nutrition. The patients were organized into groups based on whether they started enteral nutrition within 24 hours and whether they achieved protein administration of 1.2 g/kg/day within one week. Primary end point was outcomes, including mortality, length of stay in the ICU or hospitalization, and infectious complications.

Results: A sample of 85 patients was analysed. The mortality was 12.5%, and infectious complications occurred in 49.4% of patients. Thirty-four patients received nutrition within 24 hours, and 51 received nutrition after 24 hours or later. There was a significant difference in the morbidity due to infectious complications (35.2% vs 58.8%, $p = 0.03$), and the morbidity of the group receiving enteral nutrition within 24 hours was lower. Thirty patients received protein administration of 1.2 g/kg/day within one week, and 34 did not. There was a significant difference in the morbidity due to infectious complications (33.3% vs 59.0%, $p = 0.03$), and the morbidity of the group receiving 1.2 g/kg/day of protein within one week was lower.

The patients were divided into four groups according to the two factor (Group 1; fed within 24 hours and 1.2 g/kg/day protein within one week, Group 2; within 24 hours and not 1.2 g/kg/day, Group 3; after 24 hours or later and 1.2 g/kg/day, Group 4; after or later 24 hours and not 1.2 g/kg/day). The association between the combined groups 1-4 and the morbidity of infectious complications decreased in a stepwise fashion among the patient groups (20.0% vs 46.6% vs 46.6% vs 66.6% among group 1-4, $p = 0.04$).

Conclusion: This study shows that receiving enteral nutrition within 24 hours and protein administration of 1.2 g/kg/day within one week may contribute to reducing infectious complications in critically ill patients.

Disclosure of Interest: None declared

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ORGANISATIONAL MEASURES IMPROVE NUTRITIONAL THERAPY IN LONG STAYER CRITICALLY ILL PATIENTS

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Rationale: The complex critically ill patients requiring prolonged intensive care (ICU) are at high risk of insufficient feeding, and an elevated NRS score has been shown to be associated with a significant increase in mortality (1). These complex patients have frequent interruptions of feeding with multiple days of fasting which reduce the nutritional delivery. Organisational measures were taken to increase the interactions of the dietitians with the nurses and the physicians. The study aims at comparing the 2 periods and the impact of the changes

Methods: Observational pre- (A) and post-intervention (B) study enrolling patients requiring >10 days in ICU. Following variables were compared over 30 days: demographic and severity characteristics, NRS scores, feeding route, energy-protein-glucose intakes, energy balance, frequency and timing of indirect calorimetry (IC), outcome. Data as median, IQR [Q1;Q3].

Results: 205 patients (150 in A, 55 in B) were enrolled: age 62 [52; 71] yrs, admission body weight 75 [64; 90] kg, BMI 25.7 (22.1; 30.9), NRS did not differ between periods (53% and 64% respectively with NRS score ≥ 5). SAPS2 score was lower in B (median 51 vs. 43 in B, $p=0.014$), with less renal failures in B. Mortality in ICU (18%) was identical, while hospital was lower in B (35% vs 29%; ns); the higher mortality associated with NRS ≥ 5 was confirmed ($p=0.0052$). Dieticians were present at every morning report (never in period A) and they interacted with patients by day 3. Number of IC increased from 63% to 73%, and were realized 6-7 days earlier enabling individual adjustment of energy (Table). The feeding route changed significantly with a reduction of fasting days ($p<0.001$) and increase of enteral feeding days. Energy deficit decreased significantly ($p<0.001$), and daily glucose (+15g/day) and protein (+5g/day) delivery increased. Length of mechanical ventilation was 16.5 vs. 13 days (ns), and length of ICU stay was 28 vs. 17 days (ns) in A and B respectively.

	A	B	p
feeding (day):	3.0 / 13.5	2.0 / 16.0	<0.001
fasting / enteral			
Time to 1 st I.C.	13 (7; 20)	7 (4; 15)	$p=0.003$
Energy expenditure	1986 (1686; 2400)	1931 (1640; 2314)	ns
Protein (g/kg/day)	0.92 (0.54;1.26)	0.99 (0.63; 1.29)	0.001
Glucose (g/kg/day)	2.2 (1.2; 3.0)	2.4 (1.6; 3.1)	<0.001

Conclusion: Increasing early interactions between dieticians and nurses/physicians improves nutrition therapy (more proteins, less energy deficit), reducing unnecessary fasting and protein and energy deficit. Values remain inferior to recommendations indicating a continued effort

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GLIM CRITERIA IN CRITICALLY ILL PATIENTS: PRELIMINARY RESULTS OF ITS ACCURACY AND PREDICTIVE VALIDITY

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Rationale: Assessment of nutritional status is an essential step in the nutrition care process of critically ill patients. Recently, a global consensus around core diagnostic criteria for malnutrition was proposed (1-2). The aim of this study was to evaluate the concordance between Global Leadership Initiative on Malnutrition (GLIM) and Subjective Global Assessment (SGA), as well its predictive validity, in patients admitted to the intensive care unit (ICU).

Methods: Prospective cohort of critically ill patients from a tertiary hospital at Porto Alegre-RS. Inclusion criteria were age ≥ 18 , admission in ICU ≥ 24 hours, patients or family members able to answer the anamnesis. Malnutrition was diagnosed within 24 hours of ICU admission by SGA and GLIM (C reactive protein was adopted for criteria inflammation while physical examination and/or reduced anthropometric parameters were considered for muscle mass loss criteria). Outcomes of interest were ICU