

NUTRITIONAL AND FUNCTIONAL STATUS AND HEALTH-RELATED QUALITY OF LIFE OF CRITICALLY ILL COVID-19 SURVIVORS. THE NUTRICOVID STUDY: AN INTERIM ANALYSIS AT 3 MONTHS AFTER HOSPITAL DISCHARGE

- J. ÁLVAREZ-HERNÁNDEZ ¹, <u>C. CUERDA</u> ², S. ACEITUNO ³ and NUTRICOVID STUDY RESEARCH GROUP OF SENDIMAD
- 1, Hospital Universitario Príncipe de Asturias
- 2, Hospital General Universitario Gregorio Marañón, Madrid
- 3. Outcomes'10, Castellón, Spain



INTRODUCTION

Prevalence of malnutrition during intensive care unit (ICU) stay can reach to 78%1. This has been associated with loss of skeletal muscle mass and function, poor healthrelated quality of life (HRQoL), disability, and morbidities that can affect individuals even long after their ICU discharge^{1,2}. Nevertheless, malnutrition in critically ill COVID-19 patients and its long-term effects are not well known³.

AIM

NUTRICOVID study aims to describe the one-year evolution of the nutritional, functional status, and HRQoL of COVID-19 survivors after their hospital discharge.

METHODS

Multicenter, ambispective, observational study is being conducted in 16 public hospitals of Madrid (Spain) with ICU COVID-19 survivors of the first outbreak (March-June 2020).

This work presents a descriptive interim analysis at hospital discharge and at 3 months after discharge. The following variables were included in the analysis:

- ✓ nutritional status: weight and MUST,
- ✓ functional status: **SARC-F** and **Barthel**,
- ✓ medical nutritional treatment (MNT) prescribed,
- ✓ and **HRQoL** (EQ-5D).

The analysis was performed using STATA v.14.

RESULTS

A total of 199 patients were included: 70% male, mean age (SD) 61 (10) vears

years.	At hospital discharge	At 3-month post-discharge	e
Weight % of average loss (-) or gain (+) from admission and hospital discharge	-16% (8%)	+8% (9%)	
MUST % of patients at high risk of malnutrition (score ≥2)	83%	17%	
SARC-F % of patients at risk of sarcopenia (score ≥4)	87%	34%	
Barthel % of patients moderate-totally dependent	81%	37%	
MNT Number of patients receiving MNT	35%	9%	
EQ-VAS median (IQR)	40 (25-50)	60 (50-75)	

EQ-5D-5L at hospital discharge (N=178), frequency, % (n)

	No problems	Slight problems	Moderate problems	Severe problems	Unable
Mobility	8.4% (15)	19.7% (35)	27.0% (48)	27.0% (48)	18.0% (32)
Self-care	23.0% (41)	24.7% (44)	21.3% (38)	13.5% (24)	17.4% (31)
Usual activities	5.6% (10)	17.4% (31)	15.7% (28)	18.5% (33)	42.7% (76)
	No pain	Slight pain	Moderate pain	Severe pain	Extreme pain
Pain/discomfort	20.2% (36)	16.3% (29)	33.1% (59)	24.7% (44)	5.6% (10)
	Not anxious	Slightly anxious	Moderately anxious	Severely anxious	Extremely anxious
Anxiety/depression	37.6% (67)	20.2% (36)	20.2% (36)	12.9% (23)	9.0% (16)

EQ-5D-5L at 3-month visit (N=165), frequency, % (n)

	No problems	Slight problems	Moderate problems	Severe problems	Unable
Mobility	45.5% (75)	29.7% (49)	17.6% (29)	6.1% (10)	1.2% (2)
Self-care	76.4% (126)	12.7% (21)	6.1% (10)	4.2% (7)	0.6% (1)
Usual activities	44.8% (74)	25.5% (42)	15.2% (25)	5.5% (9)	9.1% (15)
	No pain	Slight pain	Moderate pain	Severe pain	Extreme pain
Pain/discomfort	38.2% (63)	26.1% (43)	21.2% (35)	12.1% (20)	2.4% (4)
	Not anxious	Slightly anxious	Moderately anxious	Severely anxious	Extremely anxious
Anxiety/depression	49.1% (81)	26.7% (44)	10.9% (18)	10.3% (17)	3.0% (5)

CONCLUSIONS

This analysis evidences the favorable improvement on the nutritional and functional status and HRQoL experienced in ICU COVID-19 survivors from hospital discharge to 3 months afterwards.

REFERENCES

- 1 Lew CCH et al. Association Between Malnutrition and Clinical Outcomes in the Intensive Care Unit: A Systematic Review. J Parenter Enteral Nutr. 2017;41(5):744-58.
- 2 Barazzoni R et al. ESPEN expert statements and practical guidance for nutritional management of individuals with SARS-CoV-2 infection. Clinical Nutrition. 2020;39(6):1631-8
- 3 Cawood AL et al. A Review of Nutrition Support Guidelines for Individuals with or Recovering from COVID-19 in the Community. Nutrients. 2020;12(11).

NUTRICOVID study research group investigators: Ivan Sánchez López, Carmen Gil Martínez, Maria Merino Viveros, Cristina Velasco Gimeno, Vanessa Cevallos Peñafiel, María Maíz Jiménez, Irene Gonzalo Montesinos, Victor González-Sánchez, Araceli Ramos-Carrasco, Patricia Díaz Guardiola, Clara Marcuello Foncillas, MA Sampedro-Núñez, Marina Morato Martínez, Iciar Galicia Martin, Naiara Modroño Móstoles, María Blanca Martínez-Barbeito, Laura Mola Reyes, Cristina Navea Aguilera, Loredana Arhip, Dolores del Olmo García, Mario Huelves Delgado, Emilia Cáncer-Minchot, María Pastor García, Beatriz Pelegrina-Cortés, Juana Olivar Roldán, Silmary Maichle, Begoña Molina Bahena, Natalia García Vázquez, Elena Atienza Macías, Irene Hoyas Rodríguez, Ángela Amengual Garlbarte, Ángela Morales, M Angeles Valero Zanuy, Pilar Matía-Martín, Carolina Knott Torcal, Alexander Agrifoglio Rotaeche, Andrés Ortiz Flores, M Paz Gómez Montes, Mercedes Ramírez Ortíz, Marta Ruiz Aguado, Samara Palma Milla, Teresa Montoya Álvarez, Enrique Sanz Martínez, Marta Rodríguez de Codesal, Belén Quesada Bellver. The authors also acknowledge the funding of this study by Nutricia-Danone Specialized Nutrition.

